



Garlic Mustard Control: The Latest Thoughts  
from Kelly Kearns, Coordinator, Control of Invasive Terrestrial Plants,  
Wisconsin DNR

#### GM's Life Cycle:

Previous research indicated that in northern North America, GM seeds had an 18-month dormancy prior to germination. However now we are finding some GM seeds germinating the first year after they are shed.

Seeds have a double germination period: There's a big flush of germination in mid-spring, and a second, possibly longer germination period in late summer. This second batch of seedlings is easily overlooked, and thus often remains untreated. Both cohorts are often hidden under larger rosettes and therefore are not affected by herbicide applications or torching. Thus a second treatment is often needed for emerging seedlings.

GM is a true biennial, producing flowers in its second year and dying after successfully flowering. Once flowers have opened it should be assumed that they can produce viable seed, even **if** pulled or cut. This is especially likely **if** pulled flowering plants are left in piles where they can stay moist. **If** flower stalks are cut too early, or **if** roots are left when plants are pulled, plants can send up multiple flower stalks. **If** pulling a few early flowering plants, throwing them into the shrubs so they desiccate (providing there is no rain) may prevent seed development.

#### Use Of Roundup™:

Roundup is very effective, but the target plant must be actively growing to take up and translocate the herbicide. Roundup thus works best and fastest during warm, moist weather. In cold temperatures or very dry weather, the herbicide may fail or take longer to kill the plant. We don't know how

cold is "too cold," or how long weather must be warm weather – above freezing is minimal.

Remember the "double window of opportunity" : Spray with Roundup in the early spring, before other species have emerged. Spray again in the fall, on a warm day after the first hard frost. Ideally, you could also go in after the spring flush of germination and hit the new seedlings. However you'd need to use great care to avoid other plants.

#### What About Other Pesticides:

2-4 D is fairly effective (although it may negatively impact native plants).

Scythe™, an alternative broad-spectrum, fatty acid based, non-selective contact herbicide that affects actively growing plants, also is a possibility. Information about Scythe can be gotten at <http://www.biconet.com/lawn/scythe.html>

#### What About Pulling?

Pulling is fine for a small site. **If** no flowers have opened, you can probably leave the plants at the site, preferably spread out so they desiccate; **if** any flowers are open, remove the plants or at least the flower stalks from the area.

An alternative to removing plants: Place pulled plants in a row with seed heads pointing in one direction. A propane torch can then be used to bum off the seed heads. **If** you are working on confining a large GM population, pull plants on the outside and throw them into the center of the stand. The seeds there will **be** so numerous that additional input won't matter.

#### What About Weed-Whipping?

Some have had success with this and others haven't. Results probably depend on timing and field conditions. Weed-whipping early before flowers have opened should **be** successful. **DO NOT** weed whip once flowers have started to open unless you have a way of collecting up the cut flower stalks.

#### What About Using Fire?

Newly-germinated seedlings in the springtime or late summer can be quickly burned off using a propane torch with an elongated wand. See the torch at this web site: [http://www.forestry-suppliers.com/product\\_pages/View\\_CatalogPage.asp?ID=1589](http://www.forestry-suppliers.com/product_pages/View_CatalogPage.asp?ID=1589)

*continued page 7*

#### INSIDE THIS ISSUE:

Leaves from the President's Notebook	2
INPS Field Trips	3
Olav Smedal Conservation Award	5
Purity and Diversity	6
Johnson County Garlic Mustard Summit	7
Garlic Mustard Summit	8
Precision Backpack Sprayer	9
Indiangrass Hills Field Trip Report	10
Calendar of Events of Other Organizations	11
Prairie Passage	12

President: Sibylla Brown  
Rt. 1 Box 240A  
Leon, IA 50144  
641-446-7368  
timbrhll@grm.net

Vice President:  
Connie Mutel  
2345 Sugar Bottom Rd  
Solon, IA 62333  
connie-mutel@uiowa.edu

Secretary: Linda Scarth  
1630 Wildwood Dr. NE  
Cedar Rapids, IA 62402  
lscarth@  
mmc.mtmercy.edu

Treasurer: Diana Horton  
720 Sandusky Drive  
Iowa City, IA 62240  
319-337-5430  
diana-horton@uiowa.edu

Issues/Action Committee:  
Jane Clark  
9871 Lincoln Ave  
Clive, IA 60326  
616-232-6047  
jrclark@radiks.net

Program Committee:  
Chairman: Mark Leoschke  
2212 East Rose Ave #13  
Des Moines, IA 60320-2613  
mark.leoschke@  
dnr.state.ia.us

Mary Brown  
330 Windsor Dr.  
Iowa City, IA 52245  
319-338-3876  
mlbrown@  
blue.weeg.uiowa.edu

Judy Felder  
336 Beldon Ave  
Iowa City, IA 62246  
319-361-7718  
rfelder@  
blue.weeg.uiowa.edu

Tom Rosburg  
P.O. Box 234  
Colo, IA 60066  
641-377-2930  
thomas.rosburg  
@drake.edu

William C. Watson  
P.O. Box 281  
Cedar Falls, IA 50613

Historian:  
Deborah Q. Lewis  
Dept. of Botany, ISU  
Ames, IA 60011-1020  
616-294-9499  
dlewis@iastate.edu



Printed on recycled paper

Iowa Native Plant Society



## Leaves from the President's Notebook

In October, 2002 the INPS became an affiliate of the Native Plant Conservation Campaign (NPCC). A national network of native plant societies, botanic gardens and other plant conservation organizations, the goal of the group is to collaborate, exchange information, and create a strong national voice to promote native plant conservation. Such policies and initiatives as:

- improved staffing and funding for Federal botany programs
- prevention and control of infestations by invasive exotic plants
- use of local natives in restoration
- increased plant science research and education,
- equal protection for plants under the Federal Endangered Species Act and other laws are being advocated by this NPCc.

The NPCC is a project of the California Native Plant Society and the Center for Biological Diversity. INPS is not being asked for financial support. Instead, affiliated groups are asked to lend their names and prestige, share expertise and information, and work together to solve plant conservation problems.

After one year in existence the NPCC has affiliated with plant conservation organizations in 25 states, representing more than 55,000 native plant conservation advocates. At their web site, [www.cnps.orgINPCC](http://www.cnps.orgINPCC) you can find a list of NPCC affiliates, cooperators and publications, information about international plant conservation, conservation science and law, including digests of ESA case law, conservation economics, and staffing and funding for botany. NPCC publications such as the brochure, "Wild Plants, Wild Places," are also listed on the web site. This brochure has been produced for use by affiliate groups. It describes the importance of native plants and the challenges faced by native plant conservationists.

The web site's "Make a Difference" page posts information on federal issues affecting native plants. NPCC also plans to post information on local and regional native plant issues. If you are aware of any proposal which affects native plant science or conservation in Iowa send them a summary and they will post it.

*Sibylla Brown*



**INPS Annual Meeting is scheduled for August 9, 2003.**  
**Meet at Doolittle State Preserve at 10:00 a.m.**  
**At 12:00 p.m. we will have a potluck lunch and**  
**annual business meeting at McFarland Park.**  
**Following that will be the highlight of our day,**  
**a presentation by Dr. Lois Tiffany.**  
*Watch for more details in the summer newsletter.*

# IOWA NATIVE PLANT SOCIETY FIELD TRIPS 2003

*Compiled by Mark J. Leoschke*

Thanks to all the field trip leaders for offering to lead us to beautiful natural jewels, in some cases places they own and love. All field trips begin at 10 a.m. on Saturdays and are held rain or shine. You should bring something to drink and food for lunch (unless the field trip description specifically says that lunch will be provided). Wear clothing/gear appropriate for the weather forecast and terrain the day of the field trip.

## May 3<sup>rd</sup>: Polk County, South-central Iowa

This will be a joint field trip with the Iowa Prairie Network. Jo Hudson and Loren Lown will introduce us to Engeldinger Marsh, then we will carpool to Turtlehead Fen. Both sites are owned and managed by the Polk County Conservation Board. We will look at restoration efforts where the old highway is being removed at Engeldinger. At Turtlehead Fen we should see marsh marigold (*Caltha palustris*) and Bebb's beaked willow (*Salix bebbiana*) in bloom, as well as many sedges and ferns.

**DIRECTIONS:** Engeldinger Marsh occurs between Des Moines and Marshalltown on the diagonal State Highway 330/U.S. Highway 65. From Des Moines, take the Bondurant/ Marshalltown exit from US. Interstate 80. After about 9 miles (northeast, towards Marshalltown) on this straight highway, it will curve to the left to bypass the marsh. After about 0.5 mile on the bypass there is an east-west gravel road, NE 118th Avenue, that crosses the paved highway. Turn right (east), and in about another 0.5 mile there will be a small parking lot on your left. **If it is full, just park by the side of the road.**

Coming from the northeast, it will be the opposite--the bypass will curve to your right and you will turn left on NE 118th Avenue. This road is the only one that intersects the bypass and the bypass is the only major curve on the diagonal highway.

From Interstate-35, highway 931 (exit 92 at Ankeny, go east) intersects Highway 330/65 southwest of the marsh bypass.

## May 10<sup>th</sup>: Decatur County, South-central Iowa

Timberhill (owned by Sibylla and Bill Brown) is comprised primarily of upland oak and hickory savanna. Rising above Brush Creek, the area is quite hilly with scattered oak openings dominated by Indian grass (*Sorghastrum nutans*) and little bluestem (*Schizachyrium scoparium*) as well as a variety of sedges and forbs. In May one can expect to find false cream indigo (*Baptisia bracteata*), New Jersey tea (*Ceanothus americanus*), bastard toadflax (*Comandra umbel/ata*), dwarf larkspur (*Delphinium tricorne*), hoary puccoon (*Lithospermum canescens*), prairie lousewort (*pedicularis canadensis*), prairie phlox (*phlox pilosa*), yellow pimpernel (*Iaenidia integerrima*) and a diverse assortment of spring woodland ephemerals in bloom. The Browns began restoring the oak savanna on their 160 acres in 1993 by tree thinning and fire. For those interested in oak savanna restoration it will be interesting to observe the difference between the control area which has not been thinned, the east savanna under restoration since 1993 and the west 40 acres which is currently being thinned.

Lunch will be provided by the Browns. Please contact Sibylla if you plan to attend so she and Bill will know how many people to plan on for lunch (timbrhl@grm.net or 641-446-7358).

**DIRECTIONS:** Take US. Interstate 35 south to State Highway 2 (Exit 12). Turn left (east) on State Highway 2 and drive through Leon to the gravel road after mile marker 128, just past Miller's Country Store (This is about 9.7 miles east of US. Interstate 35, almost to mile marker 129). Turn right (south) on the gravel road. Proceed south, keeping left at the Y intersection. The Brown farm is on the south side of the road after you pass the red barn, 2 miles from State Highway 2. The mailbox is green metal with a green metal post. There is no name or address on the mailbox. Turn south into the driveway. The house is at the top of the hill.

## June 7<sup>th</sup>: Kossuth County, Northwest Iowa

Stinson Prairie State Preserve is a 32 acre complex of dry-mesic to wet prairie owned by the Kossuth County Conservation Board. It was purchased by the Board in 1969 from Minnie and Emma Stinson, whose family had used the prairie as a hayfield since 1881. Stinson Prairie was dedicated in 1971 as a biological state preserve. The preserve is located on the edge of the Algona moraine, marking the last advance and retreat of glacial ice in Iowa about 12,500 years ago. The glacial erratics (boulders) at this preserve are characteristic of igneous and metamorphic rocks that are native to the northern United States and Canada. The prairie potholes (marshes), sedge meadows, gentle moist prairie slopes and the dry-mesic ridge tops are characteristic of the diverse habitats that occur over short distances in hummocky, morainal landscapes. The preserve overlooks a level outwash plain to the south, where meltwater drained away from the ice front. \*

Stinson Prairie should have a range of spring flora in bloom including yellow stargrass (*Hypoxis hirsuta*), violet wood sorrel (*Oxalis violacea*), prairie phlox (*phlox pilosa*), blue-eyed grass (*Sisyrinchium campestre*) and golden alexander (*Zizia aurea*). Mark J. Leoschke will be our field trip leader.

*continued page 4*

DIRECTIONS: From the intersection of US. Highway 169 and US. Highway 18 in Algona, take Highway 18 west for 4.5 miles to 70<sup>th</sup> Avenue (The Guide to Iowa's State Preserves says 10<sup>th</sup> Street, but this is incorrect). Turn south (left) and go about 2.5 miles to the preserve on the west side of the road.

\* = The first two paragraphs of this site description came from The Guide to Iowa's State Preserves by Ruth Herzberg and John Pearson. This guide is available from the University of Iowa Press or through your local bookstore.

July 19<sup>th</sup>: Chickasaw County, Northeast Iowa

The Richters (Mary, Bernie and their daughter Lisa) are the proud owners of land that used to be part of a small, diverse farm until the Richters purchased the site in 1971. The time of their purchase (before intensive fence row to fence row agriculture was as widespread as it is now), as well as their stewardship of this site, accounts for the diverse range of habitats found here including deciduous mesic and wet-mesic forest, sedge meadow, prairie and old field. The star of this site, and their pride and joy, is the pretty purple fringed orchid (*platanthera psycodes*), the largest known private population of this state threatened orchid in Iowa. It is possible we may get into some wet places, so bring boots. Mary Richter will be our field trip leader and will also provide lunch. Please contact Mary if you plan to stay for lunch (mlcr@rconnect.com or 641-228-7972. E-mails are preferred!).

DIRECTIONS: From the intersection of US. Highway 18 and US. Highway 63 in New Hampton, go west on US. Highway 18 towards Bassett (about 11 miles). Turn left (south) onto Beaumont Avenue and drive one mile (you will drive through Bassett and over railroad tracks). Turn right (west) onto 210<sup>th</sup> Street (a gravel road) and drive about 1.4 miles west. Turn right (north) into a long driveway and park at the two story house with a large deck in the front.

August 23<sup>rd</sup>: Allamakee County, Northeast Iowa

Clear Creek Fish and Wildlife Management Area is owned and managed by the Iowa Department of Natural Resources. The tract we will visit was purchased as an addition to an existing WMA by the DNR's Fisheries Bureau. This tract is a diverse site with a trout stream, deciduous forest, hill prairie plus a complex of fens and seeps. The complex is home to a number of uncommon and beautiful plants including bog birch (*Betula pumila*), fringed gentian (*Gentianopsis crinita*), Grass of Parnassus (*parnassia glauca*), sage willow (*Salix candida*) and bog willow (*Salix pedicel/aris*).

The fen/seep complex is also home to the state threatened Baltimore checkerspot (*Euphydryas phaeton*), a discovery made in 1986 by Dorchester resident and naturalist John Nehnevaj, who also found the fen/seep complex. This black, orange (including the tips of the antennae) and white butterfly is named after Lord Baltimore, a British colonial official in Maryland whose family crest included black and orange. The Baltimore checkerspot is the state butterfly of Maryland (The Baltimore oriole, now called the northern oriole, is also named after Lord Baltimore). The adults emerge starting in mid-June, mate, lay eggs on white turtlehead (*Chelone glabra*) and die by late July (adults may survive into early August in Iowa, though this has not been confirmed). Orange and black-banded larvae with branching spines emerge from the eggs and feed together inside a web. They overwinter at the base of the host plant, become active in the spring, eating turtlehead and other plants. The approximately inch long larvae form beautiful white chrysalises with orange and black spots. Adults emerge in mid-June and start the life cycle all over again.

DIRECTIONS: From Dorchester in northwest Allamakee County drive east on County Road A16 to State Highway 76. Turn left (north) and travel about 2 miles to County Road X6A. Turn right (east) and follow this gravel road (it becomes Church Road) about 3 miles to a small blue address sign (Number 2629) on the left (north) side of the road. Turn left onto a farm lane and follow it back (east and north, crossing a small bridge) until you dead end at a parking lot (the lot is not big-some of you may want to meet in Dorchester or Waukon and car pool to this site). The fen/seep complex begins just west of the bridge, then proceeds north along the west bank of Clear Creek (This site is in Union Township nOON R5W Section 27 NW4).

Mark 1. Leoschke will be our field trip leader. Contact Mark at mark.leoschke@dnr.state.ia.us or 515-281-5951 if you would like a local map). **BRING BOOTS!**

September 6<sup>th</sup>: Taylor County, Southwest Iowa

We will be looking at the prairie remnants in the formerly pastured north portion of Lake of Three Fires State Park, owned and managed by the Iowa Department of Natural Resources. Doug Sleep, park manager, will be our field trip leader. There are a number of prairie species here including wild petunia (*Ruellia humilis*), tall nutrush (*Scleria triglomerata*) and false eared fox-glove (*Fomanthera auriculata*).

DIRECTIONS: From the intersection of State Highway 49 and State Highway 2 east of Bedford turn right (north) onto State Highway 49. Travel about 4 miles to 220<sup>th</sup> Street. Turn left (west) and drive about 0.8 mile to a gate on the south side of the road (This is the north edge of the state park). Park on the side of the road.

## The Olav Smedal Conservation Award

*Submitted by Mike Meetz with material by Jim Pease*

The Olav Smedal Conservation Award is sponsored by the Ames Chapter of the Izaak Walton League of America. The selection committee is composed of members of the Ames Chapter of the Izaak Walton League and Story County Conservation Board. The selection of an individual or group located in central Iowa is based on recognition of his/her/their contribution to the public in the field of natural resource conservation or other outdoor pursuits reflecting the highest standards of ethics and sportsmanship. The selection committee is especially interested in recognizing those individuals or groups whose chief means of employment is work outside of the "conservation field". Consideration is given to the individual(s) who gives unselfishly of their free time and voluntary efforts. All qualified nominees will be considered. If you would like to submit a nomination you can do so by contacting the Story County Conservation Board, McFarland Park offices or the Ames Chapter of the Izaak Walton League, Box 148, Ames.

Past recipients of the Olav Smedal Conservation Award include:

1988 Dale Brentnall	1992 Cele Burnett	1996 George Patrick	2000 Erv Klaas
1989 Bill Horine	1993 Dave Van Waus	1997 Edwin Powell	2001 Cindy Hildebrand
1990 Steve Lekwa	1994 Robert Pinneke	1998 Mike Meetz	
1991 Nancy Kurrle	1995 Jim Pease	1999 Linda & Hank Zaletel	

Jim Dinsmore has been named as the 2002 recipient of this award. Among his many activities Jim has served on boards and committees for professional societies (Iowa Chapter of Chapter of The Wildlife Society, American Ornithological Society, Iowa Ornithological Society) as well as many conservation groups (faculty advisor to ISU Chapter of Ducks Unlimited since 1987, Iowa Academy of Science, Iowa Audubon, The Nature Conservancy). Jim also served as editor of "Iowa Bird Life" for 10 years and still serves as the field reports compiler. Also of note, Jim is always willing to serve as a presenter and share his knowledge with various environmental and civic groups. Birds and birding, manalogy, and animal ecology are just a few of his interests he is willing to share even though he is now in retirement.

Jim has authored and co-authored 5 books: *Iowa Birds*, the *Iowa Breeding Bird Atlas*, *Birds in Iowa*, the *Iowa Wildlife Viewing Guide*, and *A Country So Full of Game*.

Jim's book, *A Country So Full of Game*, has arguably contributed more to Iowan's knowledge of Iowa wildlife than any other publication. A product of years of painstaking research, his book reveals the history of wildlife species in Iowa, from the abundance our Euro-American ancestors experienced here in the 1830's through the destruction and carnage that ensued in the last half of the 1800's resulting in the loss of habitat and the impacts on the elk, deer, prairie chickens, wolves, and other animal populations by the 1900's. It is as readable as it is carefully documented, an excellent example of the merger of academic research with readable writing.

Humble; Jim is good natured and unassuming and does not "toot his own horn". He has gone out of his way many times to help others by providing them with information and materials (teaching aids). With his help and access to the University's extensive animal ecology collections he has provided materials for many local county conservation events. He has provided support and materials for the Iowa Department of Natural Resources Youth Hunter Education events including the YHEC program. Jim has been involved and been most helpful in Story County Master Conservation Program, the Beginning Birder programs and the SCC OWLS program. He has appeared on WOI's Talk of Iowa to discuss birds and birdwatching.

Jim was an active participant in the Save Hallett's Quarry campaign and continues to act as a consultant to the Ames Park and Recreation board on this issue. Jim has touched many with his knowledge.

### *Calendar of Events-continued from page 11*

May 22 (Thurs.): Doolittle Prairie walk, 7 pm. Sponsored by the IPN and Story CCB. Contact: Lloyd Crim (515) 432-5026 or Story CCB (515) 232-2516.

May 30 - June 1 (Fri.-Sun.): 27<sup>th</sup> Annual Loess Hills Seminar, sponsored by the Western Hills Education Agency, at the Loess Hills Wildlife area (Monona Co.). Call (712) 274-6000 ext. 6083 for more information.

June 17 (Tues.): Hike, Hitchcock Nature Center, see May 6<sup>th</sup> listing for more details.

June 19 (Thurs.): Doolittle Prairie walk, 7 pm; see May 22<sup>nd</sup> listing for more details.

June 21 (Sat.): Buffalo Day, 10 am - 3 pm, Neal Smith Wildlife Refuge (Jasper Co.). Contact: (515) 994-3400

July 7 (Sun.): Landscaping with Native Plants, 7-8:30 pm, Jester Park Lodge (polk Co.). Pre-registration required. Contact: (515) 323-5300

July 12 (Sat.): Iowa Prairie Conference, Iowa State University. More details available soon at the IPN website: [www.iowaprairienetwork.com](http://www.iowaprairienetwork.com).

## Purity and Diversity

By Linda Scarth

Today, among the catalogs that clog our mailbox, was one that caught my eye because of its charming attractiveness and by what it represents and calls into question. The catalog is from the Thomas Jefferson Center for Historic Plants and is titled *Twinleaf*. It is full of information about some of the plants documented by Lewis and Clark and the Corps of Discovery from Missouri to the Pacific, lovely watercolors and more importantly the offer to sell plants and seeds at reasonable prices in honor of the anniversary of that enterprise.

There are also other plants that Jefferson cultivated which are not North American natives and are very attractive to gardeners. I'll leave that issue aside but try to verbalize the ambivalence I think many of us feel when trying to come to terms with the concept of local ecotype and local appropriateness.

While the description of the Corps encounter with the Snowberry Bush (*Symphoricarpos albus*) clearly states that it was in the Bitterroot Mountains of Idaho, the plant is recommended in horticultural zones 3-7. Jefferson and others enjoyed the plants grown from the cuttings. This botanical treasure is available for \$12 per plant. The catalog's namesake, *Twinleaf* (*Jeffersonia diphylla*), is an uncommon Appalachian upland plant (also westward to NE Iowa) that blooms about the second week in April close to Jefferson's birthday. It resembles Bloodroot (*Sanguinaria canadensis*) and would be an attractive addition to a woodland garden.

Both are so pretty that one is tempted. Should these plants or others like them, really settle in to the Midwest, we then would have an invasive species to upset people and ecosystems. Not that either of these would likely do that, but there could be ones among the offering of this or other similar catalogs.

This is where ethical and legal choices among defensible but conflicting situations start to be messy and breakdown. Would I be so tempted to buy and import these lovely natives of other areas if historically locally native plants were more available? Probably not. I, like many admirers of things native, do not have a back 40 acres of prairie to protect and encourage. My back 40 is closer to 40 feet than 40 acres and is home to woodland natives. And I like to include a variety of adapted species.

I would be breaking the law if I were to rescue a Michigan Lily from a ditch or a Showy Orchids from a field entry, even if I see the patrol grader coming down the road scraping the ditches. And when I next go down that road there is nothing to admire or feel proud of my state for protecting. However, I can buy Michigan Lilies or Showy Orchids from a nursery in another state and by doing so (were I near a ditch with local ecotypes) will have increased the chance that cross-pollination occurs. And this is considered 'bad form', though I would not be in violation of any law or administrative code.

At the 2001 INPS annual meeting, we heard a number of people from a variety of disciplines and vantage points attempt to help all of us decide to do the right thing, whatever that may be, concerning the use and protection of native vegetation. It was a spirited and interesting discussion that ended in more questions than answers. I was surprised to find myself becoming less of a purist about local species after that meeting and I am not sure why. I wonder how others were affected. I know catalogs from distant places are tempting more.

While *Twinleaf* motivated me to make these comments and desire to promote a continuing conversation among INPS members and others, a catalog I picked up at a state park in Texas several months ago also contributed to my ambivalence and confusion on selecting plants while remaining true to the local environment. It is *Native American Seed*, a 'Go Texan' brand authorized by the Texas Department of Agriculture. There is a section called 'What is a native anyway?' that tells the story of a bison herd stampede in a storm with the scattering over great distances. The question is answered by the conclusion that seeds were dispersed far from their point of origin. In essence there is no pure local ecotype. This may be just a way to justify sales of prairie seeds throughout the mid-section of the U.S. but the story of the bison is thought provoking.

Back to my major point. These catalogs are tempting and people purchasing from them think of themselves as doing the right thing. And there are more of them than us. We (native plant professionals and enthusiasts) can't keep manmade genetically altered plants out of the environment because the political economic climate ignores our concerns. Maybe we should not be as hostile to the naturally occurring genetic diversity that comes from natural selection among introduced members of the same species. Or maybe, I and others want to assure ourselves we are encouraging the beautiful and important in caring for naturally occurring local native plant species from wherever the individual plant might originate.

### PRAIRIE RESCUE DAY at Big Creek State Park

Saturday April 26th

9:00 a.m. - 4 p.m.

Big Creek State Park is holding the second Prairie Rescue Day to renovate the park prairie. They need your help! Volunteers will be cutting and hauling brush, and treating stumps. This year's rescue and cleanup will allow a prairie nature trail to be established for education and enhanced outdoor enjoyment. Volunteers should bring leather gloves and wear long pants and long sleeved shirts. Food and drink will be provided for the volunteers. Please come and volunteer to rescue the prairie and make Big Creek an even greater park. Contact Park Manager Kim Olofson at park office 984-6473 for further information.

## Johnson County Garlic Mustard Summit

*Clay Steele, JCCB Americorps Staff Member*

On January 23<sup>rd</sup> a summit concerning the eradication and control of Garlic Mustard, a highly invasive plant species, was held at the F.W. Kent Park Conservation Education Center. Twenty-one land managers and others influential in invasive plant species control in Johnson County attended.

Garlic Mustard has an ability to enter and spread aggressively throughout an area, replacing local species with itself. It can thus overwhelm and discourage even the most experienced person. Previous attempts to fight this invasive have had mostly limited results because of a lack of a cohesive attack on it. Even as it is being fought in one area, Garlic Mustard can spread to or take over several more.

The goal of this summit was to bring together people who, **if** working together, could spread the word about this species and pool their resources and energy in its eradication on a local level. The difficulties in fighting Garlic Mustard were determined and a brainstorming session was held to develop potential solutions. Participants also explored different ways of educating the public about this invasive in order to get them to join the fight and not add to Garlic Mustard's spread. Based on the ideas collected, specific actions were proposed that would best concentrate the efforts of everyone involved.

Various attendees of the summit volunteered to take on certain activities and provide services depending on their contacts and skills. Some of these activities are: publicity in print media, radio, and television; create or reprint information on Garlic Mustard, and make it available to the public at a central location; contact neighborhood groups and homeowners associations, outdoors groups, scouts, etc.; give public presentations; develop volunteer programs; and secure funding where needed. Periodically these efforts will be reviewed to see what is successful and what needs strengthening or refinement.

### *Garlic Mustard Control continued from page 1*

Woodland burns also can control GM. Burning may be the only way to treat large GM infestations. Burning may stimulate seed germination (leading initially to GM increases). Thus **if** you manage a site intensely, burning followed by intense site management may help you deplete the seed bank and get rid of the GM in fewer years than you would otherwise.

However burn results depend on the quality of the fuel and burn. Fall burns in oak woods are generally good, but they are usually patchy with many remaining unburned areas, especially where GM is lush and thick. After the prescribed burn, walk the site and burn such areas with a propane torch.

**IMPORTANT:** Woodland burning bares the soil and creates an ideal GM seedbed. Thus **if** you burn, you must follow up rigorously, every year, with pulling, more burns, propane torch treatments, or herbicide applications. The worst scenario, leading to large increases in GM, would be burning every 2 years without follow up treatments.

### How About Biocontrol?

Research is now being done in Switzerland on weevils potentially able to limit GM. Tentatively, weevils will be released this spring in containment facilities in Minnesota and Illinois. Anyone who has rare native mustards they want tested for negative effects should get plants to the researchers in the immediate future.

Controlled releases in wild test sites may be carried out as early as the spring of 2004. Ten sites per state will likely be selected for long-term monitoring.

GM biocontrol research is being done by Dr. Bernd Blossey, Cornell University. More information, when available, will be posted at <http://www.invasiveplants.net/>.

### Things To Remember:

*Treat infestations early!* Stopping GM's spread immediately saves unfathomable later efforts.

*Choose your battles and set priorities.* Analyze a site before committing to it: is it worthy of GM control? (If a site is isolated, degraded, and large, perhaps let it go.) Concentrate on small infestations and those in high-quality sites. Figure out a control plan and do it right. Annual follow-up is crucial! Don't let plants go to seed. Make sure property managers or landowners know of any populations you have pulled so they can monitor the sites.

*Pulling* in large infestations rapidly discourages volunteers and should be used mostly on high-quality sites where GM remains limited, and on outlier or relatively new populations that you have the capacity to eradicate. Spraying large infestations is more efficient.

*Spread the word:* Whenever people walk through infested areas, any time before leaf fall, they are likely to be spreading seed.

Although some soil types (e.g. mesic loamy soils of maple and oak forests) seem more vulnerable than others, assume that all forested or savanna sites are vulnerable and *monitor them annually*. Garlic mustard is quickly adapting to full sun environments and *may eventually invade open sites as well*.

And for encouragement... Iowa is now on the edge of GM spread across the continent. We have many uninfested sites. In the future, we may have biocontrols or other more effective management techniques. It's well worth the effort to control GM in Iowa now, as best we can.

## Garlic Mustard Summit

Jan. 23, 2003, F.W. Kent Park, Johnson County

Submitted by Connie Mutel

### Brainstorming Solutions for GM Control

- Create caches of equipment (in neighborhood associations, NRCS office, etc.) that landowners can borrow for fighting GM (sprayers, propane torches...)
- Partner with Monsanto (which manufactures Roundup™) - get the company to fund GM educational efforts, etc.
- Map county's current GM distribution; identify "hot spots," focus control there
- Partner with → Farm Bureau / Farm Bureau spokesperson
  - Pheasants Forever, National Wild Turkey Federation, Whittails Forever
  - mushroom hunters
  - walnut growers, tree farms, Christmas tree farms

These groups reach a large number of people who spend time outside and should be educated about GM and its control. They also have a self-interest in fighting it, which can provide an incentive. Offer to give GM presentations to these groups, get them educational materials to include in their mailings.

Also reach out to other groups → Mountain Bike & ATV clubs, garden clubs  
 → Sierra Club, Greenpeace, Audubon  
 → Scout groups  
 → Neighborhood groups & homeowners associations

Get these groups to educate their members, & fund and help with control efforts

- Hold a work day with the above groups
- Help homeowners assns. develop management plans that consider multiple control methods
- Find trigger to make people care about biodiversity / fighting GM
  - **approach** people who already are involved with nature: hunters, mushroomers, wildflower enthusiasts etc.
- Find way to make the GM fight a higher priority for landowners with limited time and money, and who really don't care because "it's green and it's got flowers"
- Healthy forests repel GM better → Tie GM control to restoration efforts
- Get people to talk to public officials and politicians about the need for noxious weeds legislation and funding
- Place brochures about GM in every relevant office (NRCS etc.) & in libraries
- Create an Iowa web site on GM and other invasives
- Create "informational repository" for the county - one site where educational materials would be available for individuals and groups
- Create a county-wide list-serve of land managers, for sharing information and encouragement
- Ensure that DOT / county road managers are doing all they can to fight GM
- Pick your battles
  - Prioritize control sites - "Triage system"
  - Invest the most in the best sites
- Get hikers, bikers... to clean shoes and pants after walking in infested areas

### GM Educational Efforts

*Everyone agreed that a major educational campaign was crucial. Some of the above suggestions also relate to educational programs.*

- Do targeted informational mailings
- Educate lawn care companies, encourage them to offer GM control programs
- Increase press coverage
- Reprint Iowa GM brochure to replace Wisconsin's; get funding to do this
- Talk about GM on radio talk show
- Develop a "canned" powerpoint slide show or videotape that groups could show to members → Scout groups, neighborhood associations, etc.
  - could use with volunteer activities (pulling GM, etc.)
- Get GM information into neighborhood newsletters / Homeowners Associations.
- Have a GM field day → Earth Day
- ISU → pesticide training refresher classes – get them to include sessions on invasives

## Precision Backpack Sprayer

By Loren Lawn

Whenever a herbicide is used, non-target species may be damaged. This is of special concern when working in a natural system where invasive alien species are still a minor component, or where there are rare native species.

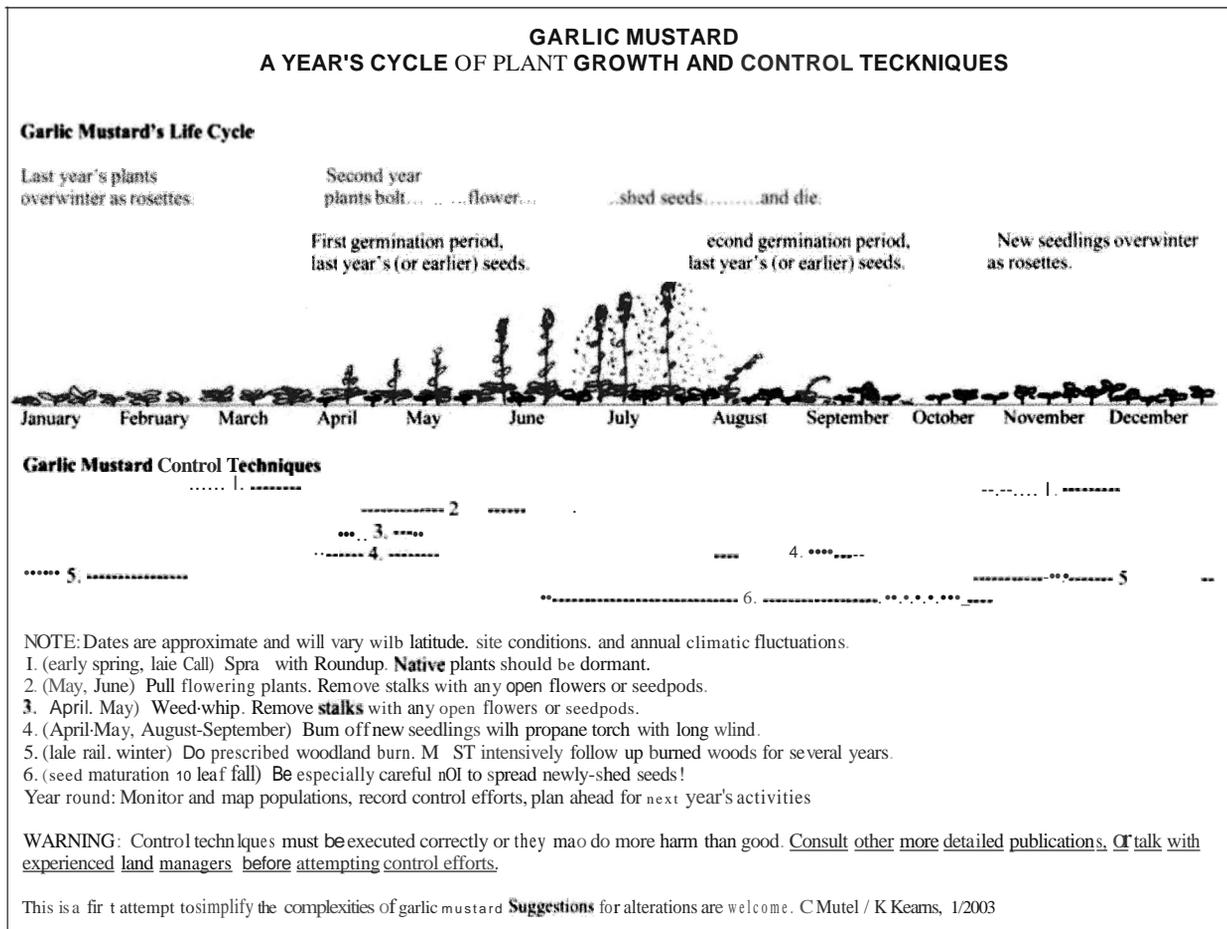
I have attempted to address this problem by building a more efficient delivery system to lessen the chances of accidental damage. Success or failure of herbicide treatment depends on many factors, not least of which is the skill and knowledge of the applicator. Application of the wrong chemical or under the wrong environmental conditions can lead to unfortunate and unforeseen results. My applicators are under strict orders never to spray when conditions are not right, never spray at or next to a species they can't identify, always use the least powerful chemical alternative, follow labels, and always limit personal exposure. Caution must be invoked; all personal safety concerns and label requirements should be considered.

I begin with a larger backpack sprayer. I use a five-gallon capacity sprayer because there are times and sites where you may want to carry the full sprayer rather than making many trips back for refills. My sprayer can carry less and usually does. Any major brand such as Solo or Smith will do. I use the 5 gallon D B Smith purchased from Forestry Suppliers (FS) for \$99.50. If you plan on using the sprayer for multiple applications including solvent-based material, then you need to ensure the unit you purchase has seals and hoses appropriately resistant to solvents. You will end up quickly replacing them if you use solvent-based herbicides with neoprene components.

I begin by removing the "wand" type handle from the sprayer and discarding it. They are usually cheap, leaky, and short-lived junk. Replace the wand with a Gunjet 30L, a trigger style unit (\$53.75 FS). This tool has nylon seals and remains leak proof for years. Attach a brass extension tube and control rod (\$19.43 for an 18" or \$24.00 for a 24", Sprayer Specialties, Grimes, IA) to the Gunjet and fit a brass adjustable conejet nozzle (\$16.25 FS) to the end. You can adjust the length of the extension to your applicator's height. Extensions are also available in longer lengths. The resulting unit extends your reach almost to the ground, even if you are tall. You can now spray herbicide on a cut stump or a herbaceous target from close distance, under most wind effects, and with a substantial reduction in off-target spray or drift.

It has been my experience that cheap sprayers are just that, cheap and disposable. A quality unit that is well maintained will last for years and reduce the applicator's exposure to the poison we are using.

Once again the skill, timing, and material choice of your applicator will determine your success and whether or not there is unintended damage. I have used this modified unit in woodland and prairie remnants with no visible, unintended results. I believe this modified sprayer is considerably less damaging than other less precise application methods. It can be a helpful tool for natural area managers. (Questions? Contact Loren at <LLawn@co.polk.ia.us>).



## Into the (Indiangrass) Hills

By Linda & arth

They came from miles around on July 13, 2002 to the Indiangrass Hills - a 640 acre prairie restoration! reconstruction in Pilot Township, Iowa County. The well-attended INPS Field Trip took place on a warm summer day at the property of Mary Brown, Judy Felder and Richard (Sandy) Rhodes II who own 480 acres and William and Barbara Buss who own 160 acres. Our hosts greeted visitors in their machine shed where they spoke about the property and their management practices. See the June 2002 newsletter for information on the property and its history.

The 480 acres was purchased in May 1997 and the 160 acres purchased 14 months later. Eighty acres of the total is a remnant native prairie, half of which was never plowed and the other half is described as "strongly regenerating". Another 38 acres was planted to CRP, 100 acres was planted for hay and pasture and the remaining 420 acres is grass and "poor timber". The hosts provided a plant species list and a map of the property. The detail and care with which information on species and location are documented is a model for all landholders with an interest in native species to emulate.

After our introduction, a caravan of vehicles moved across the property to park along a shady fence row and then follow our hosts as we explored the area. The presence of so many knowledgeable plant people was taken advantage of by those wanting to learn more about the plants and management practices. Native plants are usually accompanied by their 'companion animals' so butterflies and insects were chased and identified. The Pale Purple Coneflowers (*Echinacea pallida*) were past their peak but still made a statement for prairies along with Compass-Plants (*Silphium laciniatum*). I do not know if anyone was keeping a species list but if someone did, submit it for the next newsletter.

The congenial group then picnicked and visited before some departed and others continued to explore. The INPS and all visitors that day thank: this group of dedicated native plant people for their hospitality.



The dense crop of visitors among the Pale Purple Coneflowers.

**The Brenton Arboretum** "Not just for tree lovers." That might be the slogan as this youthful Arboretum grows up. Established in 1996, the Brenton Arboretum in Dallas County, Iowa, was designed to allow a visitor not only the opportunity to see and experience groupings of trees, but also plantings of wildflowers and grasses, as well as wetlands. The arboretum is located in southwest of Dallas Center, Iowa, at 2629 Palo Circle which is two miles south of Highway 44 and 1 1/3 mile west of R16. Hours are 10 a.m. to 8 p.m. or sundown (which ever comes first) Wednesdays through Sundays except for January, when it is closed. There is no charge for admittance and tours can be arranged by calling 515-992-4211 or a self-guided tour can be taken using a brochure available at the information kiosk. Condensed from information submitted by Susan Kuker.

## Calendar of Events of Other Organizations (March to mid-July)

- March 25 (Tues.): Presentation -- Habitat Restoration and Protection on Private Land, 7-9:30 pm, Foster Center, Grinnell College. Contact: Larissa Mottl (641) 269-4717
- March 27 & 28 (Thurs., Fri.), April 1 (Tues.): IPTV *Living in Iowa* "Prison Prairies", story about the Iowa DNR and Dept. of Corrections joint venture for seed harvest.
- March 29 (Sat.): Pasqueflower walk, 1 pm, Stone State Park, Sioux City. Contact: Woodbury CCB (712) 258-0838
- March 29 (Sat.): Workday/prairie restoration at the Reese Homestead, Monona Co. Contact: David Zahrt (712) 353-6772
- March 29 (Sat.): Workday at Ames High School Prairie, 9 am - 2 pm. Sponsored by The Nature Conservancy. To sign up call (563) 263-1847.
- March 29-30 (Sat. & Sun.): Wildlife in Art Show & Sale, Collins Plaza, Cedar Rapids. Art sales and auction benefit Iowa wetlands; co-sponsored by Iowa Natural Heritage Foundation and Kirkwood Student Wetlands. Contact: Steve Atherton (319) 398-5441 for more information
- April 12 (Sat.): Workday at Kaufmann Ave. Prairie (Dubuque Co.), 9 am - 2 pm. Sponsored by The Nature Conservancy. Call (563) 263-1847 to sign up.
- April 19 (Sat.): Morel preview and wildflower walk, IOam, Palisades-Kepler State Park near Cedar Rapids. Sponsored by Prairie State Mushroom Club and DI Museum of Natural History. Contact: Dean Abel, dean-abel@uiowa.edu.
- April 26 (Sat.): Annual garlic mustard pull, IOam, Rochester Cemetery (Cedar Co.). Contact: Casey Kohrt (319) 530-0585.
- April 27 (Sun.): Workday at Finkbine Prairie (Johnson Co.), 1:30-3:30 pm. Info about the prairie at [jones@cs.uiowa.edu](mailto:jones@cs.uiowa.edu).
- April 27 (Sun.): Workday at Greiner Family Nature Preserve (Muscatine Co.), 9 am - 2 pm. Sponsored by The Nature Conservancy. Call (563) 263-1847 to sign up.
- May 1 (Thurs.): May Day wildflower hike, 1-2 pm at Brown's Woods, Polk CCB. Call (515) 323-5300 for more information.
- May 3 (Sat.): Garden Arts Fair plant sale at the Des Moines Botanical Center, 9:30 am - 4 pm. Contact: Teresa Jenson (515) 277-4923 or Inger Lamb (515) 963-7681.
- May 4 (Sun.): Don Huffman will lead a Prairie State Mushroom Club foray at Elk Rock State Park on the southwest side of Red Rock Lake west of Pella. Contact: Dean Abel, dean-abel@uiowa.edu.
- May 6 (Tues.): Hike, Hitchcock Nature Center, Pottawattamie CCB, 7 pm, \$2/person. Contact: Chad Graeve (712) 545-3283.
- May 10 (Sat.): Prairie walk and garlic mustard pull, Rochester Cemetery (Cedar Co.), 9 am. Contact: Mark Moller (319) 645-2250 or Carol Rogers (563) 324-8897.
- May 10-11 (Sat.-Sun.): Master Gardener's Plant Sale, Polk Co. ISU Extension Office, Des Moines. Many native spp. available. Contact: Mary Ann DeVries (515) 261-4221 or Inger Lamb (515) 963-7681

*continued page 5*

### INPS Membership/Change of Address Form and Survey

Send with your 2003 dues of \$10.00 to Diana Horton, 720 Sandusky Drive, Iowa City, IA 52240.

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_ Email Address: \_\_\_\_\_

Additional information or special interests for member directory entry \_\_\_\_\_

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

## **Prairie Passage**

*Submitted by Linda Scarth*

One of the outcomes of Lady Bird Johnson's efforts to have native wildflowers be part of the landscaping of federally funded highways is the little known idea of the **Prairie Passage**. Prairie Passage is the name given to the 2000 mile stretch from the North Star State to the Lone Star State. Interstate 35 from northern Minnesota to Laredo, Texas is the backbone of the collection of highways, byways and backroads where native grasses and flowers are encouraged and valued.

The Prairie Passage is also the history of the people who lived or passed through and along this route so the mix of human culture and biological diversity may be celebrated and preserved. The program is meant to plant native grasses and forbs, as well as protect remnant prairies along highways and to use the project to educate about the natural and cultural history.

The path of the Prairie Passage goes through Minnesota, Iowa, Missouri, Kansas, Oklahoma and Texas with connections into North Dakota and up into Canada. Participating State Departments of Transportation will be producing maps and brochures promoting the project and its results. Other organizations such as The Nature Conservancy (TNC) and local activists are also involved. So far most states only mention the project briefly in their publications. The Oklahoma DOT has also stated its use of certain funds for the project. The Missouri DOT got some positive press for its cooperation with TNC in planting at an I-35 interchange. Minnesota is the exception, with several press releases and fact sheets about the Prairie Passage available on the www and in print publications.

The idea for a Prairie Passage began in 1983 with a proposal for a national wildflower route from Minnesota to Texas. The idea was to connect remnant prairies found along secondary roads and some highways. Remnant prairies and historic sites were to be identified with signs along the route. In 1993 funding from the Federal Highway Administration enabled states to begin planning and surveying potential routes. While there are minor roads and highways identified in some states, the focus seems to be the corridor along Interstate Highway 35 and other major highways.

Efforts to develop a logo and signs have resulted in the Prairie Coneflower (*Ratibida pinnata*) as the proposed designated image because it is found in prairies across the continent. A picture of the proposed International Prairie Passage Route sign is found on the Minnesota Department of Transportation website. Search for the Prairie Passage Fact Sheet using your favorite search engine.

This appears to be an opportunity for individuals, native plant and local history groups and state agencies to act and work locally with locally appropriate seeds, plants and management strategies while looking at the big picture. The idea of connected, or at least linked, prairie remnant ecosystems stretching from Winnipeg to the Laredo is wonderful. Whether it can really happen is still in question partly because it is not well known. Maintaining the effort is likely to depend more frequently on private and volunteer participation. This may be a project about which the INPS should study and learn and possibly teach.

## **Newsletter**

Iowa Native Plant Society

c/o Deb Lewis

Department of Botany

Iowa State University

Ames, IA 50011-1020