# Native Plant and Wildflower Society

NEWS

Volume IV Number 1

Spring 1997

# Native Grass Sampler

I believe it was the great German plantsman Karl Foerster who called grasses "the hair of Mother Earth." That wonderfully apt description has always stuck in my mind as perfect. Just think of a warm June wind rippling through a meadow, sweeping the many-textured and colored grasses into a tapestry of graceful motion. Perhaps it's late afternoon and the last low sunrays burnish and backlight the grasses' flowers and seedheads. Clouds of insects among and over the grasses are pursued by birds. This beautiful picture gives you just an inkling of the rich lifeweb nourished by the hair of Mother Earth.

Over the past ten or fifteen years, American gardeners have come to "see" grasses for the first time as great garden plants, and as the backbone of the uniquely American landscape style pioneered by the landscape architects Oehme and Von Sweden. Rather than regimented borders and traditional shrubbery, they use sweeps of grasses and perennials to evoke the feel of the meadow-or prairie-we just imagined. Perhaps no landscape image is as purely American as that of the prairie. And Oehme and Von Sweden's style is to landscape what Frank Lloyd Wright's is to architecture.

Right about now, though, I'm getting a bit tired of all those miscanthus and pennisetum knockoffs of the Oehme and Von Sweden original. I'm talking about the ubiquitous orname tal grass landscapes proliferating across commercial sites everywhere. Those Asian grasses are attractive, stalwart, and serviceable plants, commendable especially for their ability to survive in the most miserable soil, and are not invasive in our area. But native plant enthusiasts and gardeners everywhere can move beyond these Ornamental Grasses 101 into the subtle but not lesser beauties of the native grasses.

Bluestems. For me, the most outstanding of these is little bluestem

(Schizachyrium scoparium), which at three feet tall is not all that little. This narrowly upright, warm-season bunch grass is the most colorful of the native grasses. In the spring and summer, it is glaucous blue-green, and if you inspect the stems in mid- to late summer, you'll note a lovely overwash of rich burgundy, especially around the

### by Barb Kaczorowski

nodes. (This exquisite color combination so entranced me one September that I spent the winter knitting a sweater in just those hues.)

In September, the fuzzy ivory flowers arrayed along the topmost portions of the stems catch the light, but don't expect the flagrant plumes of a maiden grass.

These little flowers are subtle embellishment of a grass whose main attraction is its palette of stem and leaf color.

This palette heats up in the fall, when the entire clump turns a fiery orange-red, lighting up the autumnal and winter landscape before finally fading out sometime in February. The cultivar "Blaze" has been selected for its exceed-

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ingly bright and long-lasting winter color. Clumps of it really resemble fires burning in the snow.

Little bluestem was one of the major constituents of Indiana prairies, and you can reinstate its beauty in your garden. Just don't site it in heavy soil or in a wet spot. It doesn't demand rich soil-just good drainage. And once established, it is very drought tolerant. In the dunes along Lake Michigan, you'll see it growing in pure sand.

Little bluestem's big brother is of course big bluestem (Andropogon gerardi). This robust, five- to sixfoot tall prairie grass is recognized in late summer and fall by its "turkey foot" inflorescences

Andropogon gerardi

radiating from the tops of the stems. Like little bluestem, it goes through a color transformation from steely blue-green to orange in the fall. The cultivar "Pawnee" is especially colorful.

Big bluestem's growth requirements are identical to those of little bluestem: sunny and well-drained.

Even if you've never seen big and little bluestem, I know you've seen their poor cousin, broomsedge (Andropogon virginicus). Not a sedge at all, but a grass, this denizen of poor soils is reputedly an indicator of phosphorus deficiency. At any rate, I never notice it until winter, when their orangey-tan color marks the locations of colonies of broomsedge everywhere.

Indian grass. For a splendid, distinctive alternative to Asian feather reed grass (Calamagrostis spp.), try Indian grass (Sorghastrum nutans) in your garden or meadow. This warm-season bunch grass has leaves a bit wider than little bluestem's, that reach around 36 to 42 inches tall. The head-high, six-to-18-inch, graceful, arching inflorescences are narrow in early summer, before opening out in late June with a spangle of quarter-inch lemon-yellow pollen anthers. Then in late summer and into autumn, the seedheads turn the most beautiful burnished chestnut, and the increased

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### Indiana Native Plant and Wildflower Society Newsletter ©Copyright 1997

Published quarterly by the Indiana Native Plant and Wildflower Society for members.

### The Mission of the Indiana Native Plant and Wildflower Society is to promote the appreciation, preservation, conservation, utilization

and scientific study of the flora native to Indiana and to educate the public about the values, beauty, diversity and environmental importance of indigenous vegetation.

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### Submission of articles

Information for the newsletter is supplied by Society members and others interested in sharing information about Indiana native plants. Articles or drawings should be sent to the Editor, Dan Anderson, 7412 Graham Road, Indianapolis, IN 46250, or e-mail wilson@hsonline.net.

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Sorghastrum nutans

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# President's Message

evelopment brings new homes, new jobs, new opportunities. However, it can also bring environmental problems as we continually change the land to suit our short-term needs.

My sister who lives in Tacoma, Washington, wrote in January '97 of the floods in the Pacific Northwest. "We have several new 'lakes' completely covering several blocks of main roads and highways, causing road closures and detours, and now mudslides bringing houses down onto the Interstate. All this flooding has just begun happening in the last few years, due I guess to all the new building and paving going on in the Pacific Northwest. We are growing at an amazing rate. And where there used to be undeveloped areas to help soak up the winter rains, there is now pavement. Therefore we are having major flooding problems. A friend lives about a mile away and has been stranded in his house for five days. The only access road to his development is closed because of a new 'lake' over the road so deep that a car trying to go through it is still stuck in the middle with water halfway up its windows. It has been getting progressively worse the last three or four years, and this year it is very bad. It will be interesting to see what the county does about the water problem."

Charles E. Little details another result of misuse of our planet in his book entitled The Dying of the Trees. He writes that environmental changes such as global warming, logging, and atmospheric pollution have caused "widespread deaths of forest-dwelling species...strongly suggesting an extreme ecosystem imbalance." Frogs and toads are experiencing problems. Little also reports a decline of mushroom populations, especially in

Europe, earthworms dying in Midwest forests, and giant cactuses dying in southwestern deserts.

Is it too late? Are our small efforts worthwhile? A man once walked along an ocean shore, stopping periodically to throw stranded starfish back into the water. Another man, seeing the beach littered with thousands of stranded starfish, asked "What difference will your effort make-there are so many," and the first man replied "It makes a difference to this starfish."

What can we do? Implement suggestions written by Ted Harris in his article on biodiversity. Work with children, our hope for the future, and teach them about the value of conserving our environment. Join with Dan and Sophia Anderson in encouraging young 4-H members to complete wildflower projects, and with Sue Nord, education chair, who is helping fifth-graders grow native plants. Attend a plant rescue certification workshop offered by Don Miller and Sue Dillon, plant rescue coordinators, who hope to organize digs in areas where development will destroy native plants. Come and help dig and plant.

Encourage developers to preserve the environment as they plan and build new areas. Perhaps the parks department in your area could use your help as a volunteer. In Indianapolis, Don Miller and Tungesvick have INPAWS volunteers in planting wetland plants near the Major Taylor Velodrome and prairie plants in a site off Westfield Boulevard for Indy Parks.

Submit articles on native plants, wildflowers, invasive exotic removal and preserving our environment to newsletter editors Dan Anderson and Anne Wilson. Offer to help set up the educational display garden using native plants and wildflowers that Hilary Cox and Mike Rian are designing and planting for Orchard in Bloom, May 2 through 4 at Holliday Park in Indianapolis. Contact Colletta Kosiba who matches speakers to events from her list of lecturers. Participate in our annual meeting held each year in November. Let the INPAWS board know about your talents, your interests, your willingness to participate. We need you!

Help to educate everyone you contact about the value of our precious environment-remember the message on my friend's sweatshirt. "We will conserve only what we love. We will love only what we understand. We will understand only what we are taught." Charles Little quotes William Wordsworth's Tintern Abbey, "nature never did betray the heart that loved her."

Hoosiers are blessed with a wide variety of natural areas. We are spotlighting five state parks for our field trips this year.\*

In many of our parks, garlic mustard is rampant. As reported in our 1996 newsletters, this plant can totally destroy wildflower areas. Garlic mustard is an aggressive biennial which can outcompete and overtake natural areas and is just beginning to be found at Shades and Turkey Run State Parks. Here is our chance as members of INPAWS to explore two of our finest state parks at the peak of spring wildflower season, have fun and help in one small way to "make a difference." Join us! Become involved. Indiana needs your help.

<sup>\*</sup> See complete program and field trip calendar on page 13.

### Good for What Ails You?

I don't normally frequent health food stores, but an article in an early January Wall Street Journal on the uses of purple coneflower (Echinacea purpurea) attracted my attention, and caused me to look into the uses of native plants for health reasons. Among the displays of antioxidants, enzymes, accelerators and various rare elements was a large selection of pills, syrups, tinctures, decoctions and capsules made from various plant products, most of which, unfortunately, were of alien origin.

The first ones I noticed were pills made from elderberry (Sambucus spp.) and stems flowers. According to the labels, the capsules and syrup are used in the treatment of colds, flu and bronchial irritations. I personally prepare an infusion of elderberry juice, sugar and yeast, which is an effective tranquilizer if consumed in appropriate quantities. The principal side effect of overdosage is a headache, which can be treated by chewing willow bark, as Native Americans did, or by popping one or two Bayers.

There were several products made from the dried roots and rhizomes of purple coneflower. One is reported to stimulate the formation of white blood cells and fight viruses. Others are used for skin problems such as eczema, burns and rashes. Natives of the Missouri Valley would burn the leaves and inhale the smoke to alleviate headache, and would place a leafy wad next to an infected tooth to dull the pain.

Dried **pokeweed** roots (*Phytolacca americana*) are recommended by some herbalists for treating lymph-node related diseases such as mumps, swollen glands and tonsillitis. A note appended to the listing warns that the fresh plant is poisonous, and large doses of the root are emetic and cathartic. I can testify that, having eaten the sprouts on one occasion with insuffi-

cient changes of water, that poke is one of the most powerful and quickest-acting laxatives known!

Joe-pye weed (Eupatorium pur-

pureum) is stated to be active

in the urinary tract, helping to

fight infections and dissolve kidney stones, and also relieve menstrual cramping. By aiding in the elimination of uric acid from the body, it may be of some use in the treatment of gout and arthritis. The active principle is to be found in the roots and rhizomes. A tea may be made from the dried leaves of the closely related boneset (E. perfoliatum), which has been introduced to Europe and cultivated in many areas. The hot tea appears to induce sweating, which appears to be beneficial in treating colds, flu, and various kinds of fevers.

Tea made from the flowers of goldenrods (Solidago canadensis et al.) is said to be beneficial if one has urinary tract infections, kidney problems, or lower back pain associated with either one. (Throw away those Doan's Pills, folks!) Not having any of the above problems, I can't testify to its efficacy, but it surely tastes good!

Broadleaved plantain (Plantago major) has been a common weed (oops-herb) here for hundreds of years. Although it is probably an alien, Native Americans were using it when the colonists arrived, leading me to believe that it was introduced by Leif Ericsson, Cortez, or perhaps had been spread over the whole Northern hemisphere before Europeans arrived. Native people would heat a bunch of the leaves and bind them over a place in the skin where a thorn or splinter had become embedded. They believed the treatment would help draw the foreign body out of the skin. Recent herbals recommend poultices of fresh whole or crushed leaves for relieving the pain of bee stings or insect bites, or helping stubborn sores to heal. I remember, as a child, my parents being told by a couple in Michigan to place the under side of the leaf against the skin for "drawing" and the upper side for healing. (I can't understand the logic behind that statement.) In an uncontrolled experiment, my mother applied a leaf to a boil on my leg, which broke in two days without any assistance from me. My wife claims good results with me, and with our kids when they were young.

Jewelweed (Impatiens spp.) was
used by Native Americans in
treating various skin rashes and
eczema. Although many authors
of books on edible plants mention its property of easing the
discomfort of insect bites and poison ivy
(with which I heartily agree), it does not
seem to be mentioned in many of the
modern herbals. One would think a beneficial lotion or cream could be made out
of the sap or leaves.

Good News Department: If you have a sore throat, you may get relief by gargling with a tincture made from leaves and flowers of purple loose-strife (Lythrum salicaria). As you may know, a tincture is an alcoholic extract, so take care not to swallow!

Let's get rid of all those sore throats and eliminate the pest from Indiana! Meanwhile, how about garlic mustard plasters?

Note: Any wild foods, beverages, or medicinal preparations listed in this column have been widely used by Europeans and/or Native Americans. However, humans have a wide range of allergies and/or incompatibilities with many substances, so we recommend sampling in small quantities before using any unfamiliar plant product. INPAWS and the author cannot accept responsibility for any digestive upsets or other side effects that may occur. Also, no claims are made for the efficacy of any herbal preparations.

Dan Anderson continues to be our newsletter editor and a wild-foods enthusiast.

### THE BIODIVERSITY CRISIS IN INDIANA,

### AND HOW YOU CAN HELP

by Ted Harris

In the two hundred years since settlement of Indiana began in earnest, 80 to 90% of its natural areas have been converted to asphalt, concrete, mowed lawns and plowed fields. Most of what remains has been logged or otherwise disturbed, or threatened by exotic species. Indiana's high-quality natural areas are widely scattered. They are usually just a few, to a few hundred, acres in size-too small to support the continuing evolution of new species.

Indiana could be a "poster child" for the biodiversity crisis, which is the worldwide loss of genetic, species and ecosystem diversity. Gone from Indiana are the vast prairies, savannas and old-growth hardwood forests. Gone are the deep, clear, cold streams and rivers that had been formed by glacial

runoff. By comparison, today's waterways are unbuffered, silt-laden, algaecovered, polluted channels. Gone are most of the wetlands, the glades and the barrens, with their overlapping assemblages of grasses, sedges and wildflowers. Gone, probably forever, is Wild Indiana!

Is it too late for you to make a difference? Yes, and no! Yes, because so much has already been lost, and because most people's value systems still favor economic development over natural area protection. Pressures for highway building and urban expansion are as strong as ever. Wooded areas are being converted to subdivisions, which will be occupied by people who subconsciously miss nature and want to own a small piece of it, but who are untroubled by the long-term loss.

INDIANA COULD BE A POSTER CHILD' FOR THE BIODIVERSITY CRISIS, WHICH IS THE WORLD-WIDE LOSS OF GENETIC, SPECIES AND ECOSYSTEM DIVERSITY.

How can you possibly help? First, share your values with your kids, with your friends, and with your elected representatives. Let them know it hurts you to see natural areas consumed by road building and development. Join organizations such as the Hoosier Environmental Council, which opposes destructive trends. Write letters! Speak out at hearings!

Support restoration efforts. Nature heals herself-she just needs a little cooperation from us. Show up at Indy Park, Department of Natural Resources, and

Nature Conservancy workdays. Help with INPAWS' native plant rescues. Encourage wildflower planting in open areas and along roadways. Better yet, plant them yourself!!!

Recognize that Indiana's few remaining high-quality natural areas are precious.

> You know where they are. But do you know if they have received long-term protection?

> Two or three generations from now, a private landowner's special woods may be inherited by a grandchild who lives far away and can't afford to keep it. (Enter the developers!!) Don't wait-act today! Talk with the owners to see if they are aware of conservation easements and donations to land trusts. Or, contact the INPAWS'

Conservation Committee. We will assist the owners in protecting their lands.

Is the picture grim? Is the picture hopeful? Both-but the latter depends on each of us doing something to make a difference. By themselves, sympathetic thoughts will not save Indiana's biodiversity.

Ted Harris is chairman of the Conservation Committee of INPAWS. If you would like to be part of the committee, or would like more information, please call Ted at 317-362-1509.

### TAX DEDUCTIONS FOR PLANT AUCTION DONATIONS

INPAWS is a not-for-profit 501(c)(3) corporation recognized as tax-exempt by the state and federal government, and is therefore entitled to receive unencumbered gifts which may result in a tax deduction for the donor.

With that in mind, a system is in place at our auctions to track your donations of plants or goods so as to document your donations and furnish you with the details of prices realized. These then, with the counsel of your tax advisor, can be used

to decrease your tax liability, if you choose.

The method is simple. Your registered "bidder number" is, at the same time, your donor number. This number is affixed to your donations and recorded, along with other sale data, in triplicate, by the auction clerk at the time of sale.

A few days after the sale this information is collated, and you will receive a letter of acknowledgement along with copies of

### by Rolland Kontak

sale records for each of your donated

If you itemize deductions the above service may be of great value to you. Please confirm your individual case with your tax advisor.

Rolland Kontak is an INPAWS charter member, former president of the Indianapolis Museum of Horticultural Society, and official INPAWS auctioneer.

## MULTIFLORAE

### **DNR Announces 1997 Field Trips**

The Indiana Department of Natural Resources is offering free field trips to four of its nature preserves. There will be two hikes each day, one from 9:30–11:00 AM and another from 1:30–3:00 PM. (Times will be per "Indiana" time, which changeth not through the year.)

April 26 • Shrader-Weaver, in Fayette County. Old-growth forest with outstanding wildflower display. Easy hiking.

May 17 • Twin Swamps, Posey County. A swamp cottonwood-bald cypress swamp and an overcup oak swamp, with southern flatwoods between. Good variety of plants and birds, many with southern affinities. Easy hike, with mud wading if you choose.

July 12 • Mongoquinong, which is within the Pigeon River Fish and Wildlife Area, in LaGrange County. It features a fen with surface seepages. Great variety of sedges with a variety of wildflowers. Very difficult walking, as there are no trails through the hummocks.

August 16 • This Jasper County preserve consists of a black oak savanna on rolling sand ridges. Many sun-loving herb species can be found growing in sunlit batches among the trees. Moderate hiking, as there are no trails.

This is an excellent opportunity for INPAWS members to become acquainted with some of the lesser-known natural areas of the state. All hikes will focus on the native plant life to be found at each location. If you are interested in any or all of these activities, please write Roger Hedge, Heritage Ecologist, Division of Nature Preserves, Indiana Government Center South, 402 W. Washington St., Rm W267, Indianapolis, IN 46202, or call him at 317-232-4052.

The number of persons on each hike is limited, so please call or stop by the office if you would care to make a reservation.

### The New England Wild Flower Society

has published its 1997 catalog listing almost 300 varieties of seeds and fern spores for sale, as well as a number of books and publications. Seed packets are sold for \$2.75 each (\$1.75 to members), with a minimum order of five packets. Shipping and handling is \$2.50 additional. Although this newsletter may reach you after the cut-off ordering date of March 15th, it might be worthwhile to obtain a copy before planning your 1998 garden. For a copy, send \$2.50 to:

Seeds
New England Wild Flower Society
Garden in the Woods
180 Hemenway Road
Framingham, MA 01701-2699.

### CENTRAL INDIANA LAND TRUST

CILT's annual meeting and pitch-in lunch will be held at Holliday House in Holliday Park (64th and Spring Mill Road, Indianapolis) on Sunday, April 27, 1997, at 12 noon. Division of Nature Preserves Ecologist Tom Swinford will present a program on dragonflies.

INPAWS members are welcome to attend. Please contact Ted Harris at 317-362-1509.

### RITCHEY WOODS PROGRAMS

The list of activities at the Children's Museum at Ritchey Woods, in Hamilton County, continues to grow. The events below which may be of interest to INPAWS members have been scheduled for April and May:

April 19 • WOW-Wetlands-explore the new 300-foot trail through RW's wetlands and learn more about this fragile ecosystem.

May 10 &17 • become acquainted with the many spring wildflowers which carpet this lovely woods.

The charge for the above events is \$4.50 for Childrens' Museum members, \$5.50 for non-members, adult or child. Reservations are necessary, and can be made by calling Robin Spearin, Environmental Education Specialist, at 317-924-5431, extension 3826.

For those who like to "do their own thing," admission is free to Museum members and only \$1 for non-members when not attending a special program or event.

### ❖ NATURE WALKS AT BUTLER UNIVERSITY ❖

Dr. Rebecca Dolan, Director of the Friesner Herbarium at Butler University, is offering the following nature walks for the spring months:

March 11 Early Signs of Spring

April 8 Ecology of White River Flood Plain

May 13 Spring Wildflowers

June 10 Wildflowers

The hikes are on Tuesdays, are free, and last about 40 minutes. Wear comfortable shoes and meet behind Gallahue Hall, near the greenhouse, at noon.

For information, please call Dr. Dolan at 317-940-9413.

### Melcome to New Members

James Moore . . . Anderson Scott and Ruth Ann Sanders . . . . Bloomington

Joyce Landis . . . Carmel

Hallie Orgel . . . . Chesterton Hazel Clouser, Jo Clouser . . . . Darlington

Thomas Westfall . . . . Evansville

Aaron Lauster . . . Fishers Don Gorney . . . . Fort Wayne

Leland Shaum . . . Goshen Bryan Hanson . . . Greencastle

Danny McDowell . . . . Hobart

Marybeth Crossin,

Jennifer Greulich.

Virginia Harmon,

Kevin Harmon.

Robin MacDonald,

Sarah Murphy,

Michael Rian . . . Indianapolis

Herb and Barbara Buchanan,

Robert Mann . . . . Kokomo

Heather Struch . . . Lafayette

Steve Shepherd . . . Lebanon Sharon Coons . . . . Mooresville

Phillip Tuttle . . . . Muncie

William Carlson . . . Pendleton

Dan Young . . . Plainfield

Donna Strole . . . Rensselaer Traci Gilland . . . . Roanoke

Marguita Manley . . . . Spencer

Ruth Hinkle . . . . Sullivan

Joyce Atcheson . . . West Lafayette

Michael Kraft . . . . Washington, D.C.

Jim and Bonnie Carter,

John and Candace Ulmer ... Zionsville

### Your editor is now on-line!

If you have news or a story you think should be covered in INPAWS NEWS, please e-mail Dan Anderson at danand@netdirect.net.

And please remember that we continue to solicit articles, art, commentary, etc. (on paper too) from anyone interested in native plant issues.

> Send to Dan Anderson 7412 Graham Road Indianapolis, IN 46250

or e-mail wilson@hsonline.net.

### NATIVE PLANT WALKS

Native plant walks on the grounds of the Indianapolis Museum of Art are scheduled for April 12th and 13th. For additional information, please call Sue Nord at 317-782-0763(h) or 317-923-1331 extension 585(w).

### Holliday Park Spring Programs

Tuesday, March 18, 6:30 PM

Volunteer Kick-off: In the three years of Holliday Park's existence, volunteers have logged in more than 8,000 hours. Find out what interesting volunteer activities are available, and enjoy desserts and liquid refreshments. Special gifts will be given to any current Holliday Park volunteer who brings a friend.

Saturday, April 12, 1 to 2:30 PM

Butterfly Gardening Workshop: View the favorite foods of local butterflies and learn planting tricks for larval and nectar foods. Next, learn the basic design method which will enable you to create your own garden at home. The class fee of \$35 includes a book on butterfly gardening, handouts, and a few plants to take home to get you started.

Saturday, April 26, 10 to 11:30 AM

Wildflower Folklore Hike: Hike the trails of Holliday Park and learn some fun and interesting folklore behind some of the native wildflowers of Indianapolis.

Saturday, May 17, 9 AM to 1 PM

Holliday Park Garlic Mustard Pull: Now that much of the invading Amur honeysuckle has been conquered, it's the turn of the invading garlic mustard, a plant so obnoxious that even the deer won't touch it! Learn of appetizing dishes which can be made from garlic mustard! For sensitive stomachs or taste buds, refreshments and snacks from other sources will be pro-

Registration is required for all programs unless otherwise noted. All activities above, except the Butterfly Gardening Workshop, are free. For information or registration please call the Holliday Park office at 317-327-7180.

Saturday, April 26, 9 AM to 1 PM

Broad Ripple Park Cleanup Day: Plant flowers, spread mulch, paint, restore riverbank or help pick up trash to beautify Broad Ripple Park, at 1450 Broad Ripple Avenue at 62nd Street.

All ages, groups or individuals are welcome.

### 4H PROGRAM ACTIVITIES

Coordinators Dan and Sophia Anderson have added a thirdyear activity to the 4H Wildflower project. The first year deals with the identification of species, the second with classification and ecological niches, and the newly added third with the wise uses of wild plants (with the focus on native species). Information has been sent to many counties throughout the state. Check to see if your county has the info on hand to start the wildflower project-if it does not please contact us and we'll see that you get it!

We would like this to be a state-wide project in the next two years!

Dan and Sophia Anderson • 317-849-3105

### MULTIFLORAE

CONTINUED

As spring follows winter,

and we begin to think about adding native plants to our landscapes, we ought to consider the importance of subtracting invasive exotic plant species. Many native plants are not lost through development, but are smothered, strangled and simply crowded out by invasive exotics. In past issues we have featured some of the worst in Indiana: Garlic Mustard (Alliaria petiolata), Purple Loosestrife (Lythrum salicaria) and Amur Honeysuckle (Lonicera maackii). Not to be outdone are Multiflora Rose (Rosa multiflora) and Japanese honeysuckle (Lonicera japonica).

Do you know of other problem plants? Do you have an effective method of eradicating them? Would you like reprints of the three articles we've published in INPAWS News? Contact Anne Wilson at 14701 Bellsville Road, Nashville IN 47448, 812-342-6838, or wilson@hsonline.net.

Vice President, Program Chairman and Oakhurst Chapter Representative Kevin Tungesvick recently gave a three-hour workshop entitled Using Native Grasses and Restoring Wetlands at the annual Trade Show of the Midwest Regional Turf Foundation, describing the uses of native grasses and wildflowers, as well as wetland vegetation, in golf course and commercial grounds management. He also gave a talk entitled Restoration of Degraded and Fragmented Natural Areas, detailing the removal of exotic plants, reintroduction of fire, and linking of fragmented natural communities, to the East Central Indiana Chapter of the Audubon Society.

For a list of publications on *just about every natural* resources topic you could think of, from fish and wildlife, forestry, conservation education, historic preservation, maps, nature preserves, Indiana's rare plants and animals, recreation areas, soil conservation, state parks, museums and historic sites, to water management and more, contact the

Indiana Department of Natural Resources
Division of Public Information & Education
402 W. Washington Street, Room W255B
Indianapolis, IN 46204-2742
317-233-3046

or order online: http://www.ai.org/dnr/public/index.htm

### For Nature Photographers

The Limberlost State Historic Site is sponsoring a photo contest, to be exhibited at the Portland Center for the Arts during the month of August. For more information call 219-368-7428 or write

The Limberlost State Historic Site Box 356, Geneva, IN 46740

### MANCHESTER COLLEGE TRIP TO COSTA RICA

The Manchester College alumni association is sponsoring a trip to Costa Rica June 8-20, 1997. The tour is open to all with an interest in tropical natural history. It will use the facilities of the Organization for Tropical Studies, one of the premier research and teaching organizations in the New World tropics. The tour will depart from Chicago's O'Hare Airport on June 8 and return there on the 20th. Stops will include:

- Four days at La Selva Biological Station, located in a preserve of several thousand acres of undisturbed lowland forest.
- Three days at the Wilson Botanical Garden—Las Cruces Biological Station. This site is located at an elevation of about 3500 feet, and has several hundred acres of lower montane forest.
- Briefer stops at the Canopy Tramway for a glimpse of life in the rainforest canopy, at high-elevation sites including a dormant volcano, and at Lankester Gardens, well known for an excellent orchid collection.

At the field stations, tours with local naturalists will be available, and there will also be ample time to explore on your own. Accommodations will be comfortable, but not luxurious, with shared rooms planned at all sites. The cost is \$2095 per person, including air travel, all meals and entrance fees, but excluding local attractions of your choice. For further information, including a detailed itinerary, contact:

Gary Montel, Alumni Office, (219) 982-5222 gemontel@manchester.edu

David Hicks, Biology Dept., (219) 982-5309 djhicks@manchester.edu

Manchester College, North Manchester, IN 46962

Or check the college's Web site:

http://www.manchester.edu/alumni/tours.html

### SECOND INPAWS CHAPTER!

Welcome to *Michiana*. Lynn Schelstraete, of Middlebury, has organized in northern Indiana the society's second chapter (*Oakhurst*, in Muncie, is the first). So far there are nine members, and interest is growing!

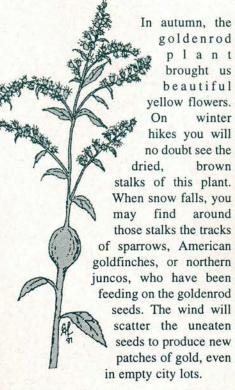
### The Gardener's Guide to Plant Conservation

Learn what to buy and what to avoid to help protect fragile wild plants. Each of the four chapters in this 200-page book (on native North American wildflowers, bulbs, insectivorous plants, and terrestrial orchids) lists plants commonly available and categorizes each species as either wild-collected, artificially propagated, or a combination of both. Also included are reference charts, a glossary and bibliography. The cost is \$12.95 plus \$3.00 for shipping and handling. To order, call 410-516-6951, or contact:

World Wildlife Fund Publications P.O. Box 4866 Baltimore, MD 21211

### It Takes a Lot of Gall

by Karen Shrock



Look closely and you will discover bulges and weird shapes on the stalks of the goldenrod. These deformed swellings are called "galls" and are a very common phenomenon. Galls are caused by insects that lay their eggs inside the goldenrod stems in the spring. A tumorous growth forms around the growing insect larva that uses the plant for food. The space

hollowed out by the insect is then used for wintering over while maturing.

The most common types of goldenrod galls found in the winter are the ball gall, the elliptical gall, the bunch gall and the blister gall.

The ball gall is the most easily seen. It is a round swelling about three-fourths of an inch in diameter. You may find two galls on one stem; they do not harm the plant. After the gall fly lays eggs on the stem and the gall forms, the larva eats a tunnel to the outer edge of the gall. It then returns to the middle of the gall, where it winters over as a pupa. When spring arrives, the adult fly crawls through the tunnel, makes a hole in the outer layer of the gall and emerges. The fly begins the circle of life again by finding a new goldenrod stem on which to lay its eggs.

The elliptical gall is almond-shaped and caused by the larva of a gall-moth. Because the eggs are laid in the fall, the insect won't be found in the gall in the winter. The egg hatches in the spring and the larva eats its way down the stem to a stopping place, where the gall forms. The moth evacuates the gall in late summer. Many other critters, such as bees, ants, beetles and spiders use the empty gall for shelter.

The bunch gall is located at the tip of the stalk, where it appears to be a flower with many woody petals. A midge, or tiny fly, lays an egg on a leaf bud, which stunts the stem growth. A single larva causes the plant to produce leaves around it, forming this easily spotted gall.

If you look closely at the leaves of the goldenrod, you'll discover the fourth gall. Various blister galls that look like a black drop of India ink can be found on many leaf surfaces. Inside each will be a lightcolored larva which is a species of midge.

Just as the monarch butterfly chooses the milkweed on which to lay its eggs, the gall fly, moth and midge know instinctively that their young need the goldenrod to survive. So, in the 'dead' of winter, when the goldenrod looks dry and lifeless, remember that it holds deep within its galls the developing life of next year's insects!

Ms. Shrock is an interpretive naturalist at Salamonie Lake, Andrews, Indiana. Her article is reprinted with permission from the park publication In Depth, Winter 1996 issue.

Illustration of Goldenrod with gall by Cheryl LeBlanc.

### SPEAKERS BUREAU GETS INTO HIGH GEAR

Interest in speakers representing INPAWS is on the rise. On March 10th, Dan Anderson gave a talk on edible mushrooms to the Marion County Master Gardeners. Carolyn Harstad and Kevin Tungesvick will speak at a meeting of state park naturalists on the 13th, and both Katrina Vollmer and Colletta Kosiba will appear at the Flower and Patio Show held at the State Fairgrounds March 14-23, making presentations entitled From Seeds to Flowers, Tips and

Tricks and You Can Grow More Than Moss in Your Shade Garden.

Katrina Vollmer will again be a hostess at the annual Wildflower Foray, April 25-27, at the T.C. Steele Memorial, located between Bloomington and Nashville.

INPAWS has arranged with the OASIS program for senior citizens to present a program called Wild Plants in the Garden and the Kitchen at four locations in the Indianapolis area, between May 19th and June 4th.

### BY COLLETTA KOSIBA

The Speakers' Bureau is proud to welcome new volunteers Susan and Carl Douglas, Donald Fischer, Ellen Jacquart, and Greg and Clare Oskay. If you, too, would be willing to present a program, even just once a year, in your particular area of expertise, please write or call

> Colletta Kosiba 5430 N. CR 600E Brownsburg, IN 46112-8941 317-852-5973.

weight of the developing seeds adds to their graceful swoop. I make these a regular feature in late-season bouquets, where they always elicit comment for their warm color and lissome form.

Indian grass is a real standout in the autumn, when the entire plant turns a striking apricot-yellow. This color lasts at least six weeks, and seems to glow especially under gray, leaden skies. Small birds feed on the seed-

seeds as they go. Clumps of Indian grass have sprouted up randomly among the field grasses surround-Panicum virgatum ing our original planting. Along with the bluestems, Indian grass

heads, undoubtedly dispersing a few

is a major constituent of tall grass prairies. Like them, it is a rich forage grass. In garden conditions, it seems a bit more tolerant of heavier soil than the bluestems, but I still wouldn't plant it in heavy clay.

Switchgrass (Panicum virgatum) is common in central Indiana, and of the grasses we've discussed, the one you're most likely to have seen. This warm-season, sod-forming grass has blades nearly a half-inch across, wider than those of bluestem or Indian grass. The color of the leaves is blue-green, with the intensity of the blueness varying from colony to colony. Each leaf arches gracefully outward as it emerges from the stem, giving the grass an airy appearance, which is reinforced by the very delicate, purple inflorescences that emerge in June.

These flowers range from two to 20 inches long, and about a third as wide, and look like much branched, open, airy, three-dimensional feathers. By late summer, they are a pale

buff color, and because of their delicate structure, are starting to break down under the battering of wind and rain.

Switchgrass is far more wettolerant than either bluestem or Indian grass, and

therefore a better candidate for heavy soils. As a constituent of tall grass prairie, it can reach six or even seven feet to the tips of its flowers. In garden conditions it is usually much smaller, the leaves

reaching three feet, with the flowers

forming a haze above them.

Probably because it is so easy to grow, switchgrass has been the subject of much horticultural selection. The cultivar "Rehbraun" is a three-to-four-foot selection with outstanding red fall color. "Strictum" is a stiffly upright cultivar reaching six feet, with light blue-green foliage turning purple-red in fall and winter. "Heavy Metal," as you might guess, has been selected for its extremely glaucous, metallic blue foliage. But even the species is a satisfactory-if highly variable-garden plant with long-lasting orange-yellow fall and winter color.

Further foraging in native grasses.

Don't let your interest in native grasses end here. There are hosts of others worth knowing and growing.

Prairie dropseed

(Sporobolus heterolepis) is an extremely fine-textured grass only about two feet tall whose beautiful golden flowers and seedheads have a maple syrup scent.

Bottlebrush grass

(Hystrix patula) has unique flowerheads three feet tall that are wonderful in arrangements.

June grass (Koeleria cristata) forms neat low tussocks topped with willowy, wand-like inflorescences in early summer, and is tolerant of partial shade.

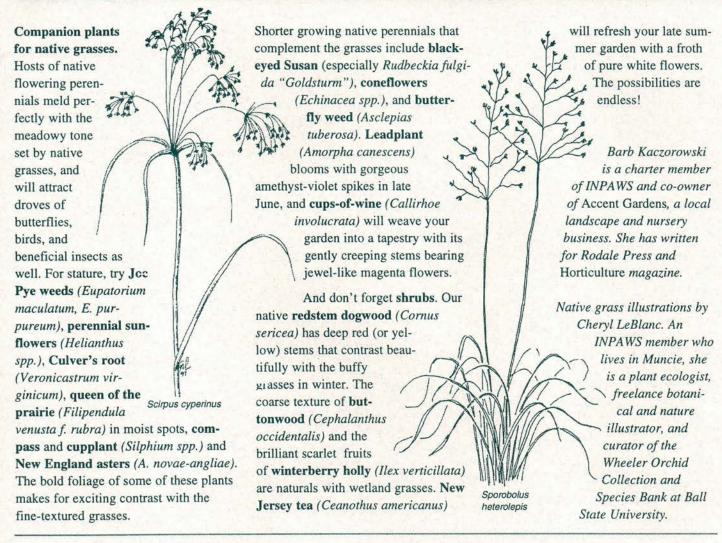
Koeleria cristata

Sweetgrass (Hierochloe odorata) is a rapid-growing, sod-forming grass redolent of vanilla, which was used by native Americans for incense, perfume, and weaving ceremonial baskets. It thrives in a wet soil.

> And while true grasses are members of the grass family, Gramineae, the sedges (Cyperaceae) and rushes (Juncaceae) are grass-like plants that are especially useful in poorly drained soil, bogs, or at the water's edge. Lurid sedge (Carex lurida) has pretty, bottlebrush-like seedheads.

Woolgrass (Scirpus cyperinus) forms dense clumps in wet meadows or shallow water and has attractive fuzzy seedheads.





### Raising Native Plants from Seed – a Few Comments

BY ROLLAND KONTAK

Trying to make plants grow is taking the majority of my time-winter and summer. Notice, I said trying. If it were only pelleted petunia seeds or radishes, trying could be replaced with a more positive word, but experience has taught that most of our wildflowers require trying, trying, and more trying.

In 1995 I waited anxiously to collect seeds from that jewel, Indian pink (Spigelia marilandica). Its flower is a magnificent red trumpet with a bright yellow interior. I learned that the seed capsules shatter and disperse their seeds before there is much chance of collecting them. The next year, I surrounded the developing seed capsules with nylon netting and succeeded in collecting several hundred seeds.

Now, more trying. I divided the precious hoard into several lots. Some seeds were sown in the ground last November. Some were sown in containers of soilless mix, covering some and exposing some. These were sown in November, and placed in a cold frame to over-winter. This February a few more were sown, after four months of dry storage. Part went into the cold frame and part were kept warm and moist indoors under lights. The rest will be sown directly in place in the spring.

So, what's the point? Some of these attempts will fail, but if I end up with even a dozen or so plants, these, added to the starting four, should provide sufficient seed for more attempts, (using the previously successful method), and also for sharing.

Notice the various methods tried: early direct and container sowing, mid-winter sowing and early spring sowing, each with some seeds covered and others exposed.

S. marilandica is only one of scores of tests being conducted using seeds of native grasses, shrubs, trees and flowering plants. The overall success rate is usually low, but by refining techniques each year, improvement will come, and successful methods can be published and shared.

Purchasing established plants is a much easier method of adding to your own collection, but should you be so inclined, the pursuit of propagation success can be personally gratifying, and will add to the general fund of knowledge, a noble achievement. Keep trying!

# Wildflower Photography

"Light is everything"-how often we forget that famous dictum of photography! Without it, there would be no image on the film. Yet we seldom give much thought to how it affects the final image. This column explores that overlooked but obvious element-light.

First, we must understand that light affects the exposure of the film, which in turn, gives the image its final impact. All too often I see washed-out photos as a result of over-exposure. This situation is usually due to the photographer's depen-

dence on the camera's built-in light meter. A camera's exposure readings are often misleading. If your camera has manual settings, and I hope it does, you will get a more accurate exposure by using a Kodak gray card. I will explain that procedure in greater detail in the next article.

In addition to exposure, light affects the overall color of the scene. Throughout the day, as the angle of sunlight changes, and it travels through varying thicknesses of atmosphere and airborne particulate matter, its color changes. It also has a different rendering during periods of overcast skies and on the shadowed forest floor where our favorite subjects are often found. For this reason, the serious wildflower photographer uses a variety of tools besides the camera, macro-lens and TRIPOD to enhance the final image. (Notice that "tripod" is emphasized!)

There is a variety of warming filters that enrich the often colder tones found in shade and overcast. The most common ones are variously called skylight-1A, and the entire 81 series, A, B, and C. These filters add the warmer-read redder-end of the spectrum to the colder-read bluer-light found in most shade and overcast situations. In addition to these filters, a polarizer helps to saturate the image with the true color of the subject by removing the scattered light reflected from it. But be advised, when using the polarizer, you need to add about one to one and one-half stops to the camera's exposure setting. This is best done with the shutter speed indicator; otherwise you will lessen the depth of focus and the image will not be as sharp as you anticipated.

Cloth reflectors are helpful tools for enhancing available light. Some have a gold side and a silver side on one unit. The use of each will have different effects on the final image. The silver will give a

66 The flower will jump out at you in the final image! "?

> strong directional light, often helping when the subject is just out of the line of sunlight. This reflector can direct light onto the subject and isolate it from the cluttered surroundings. The gold reflector will add a great deal of warm light to the scene. The gold should be used sparingly, for it may distort the colors in certain situations.

> The convenience of these reflectors is that they coil into a handy pancake-sized object that can easily fit into your photo vest or jacket pocket. They are sold under the name of Photoflood and come in various sizes. The ones I carry are about five inches in diameter when folded, and are available at most better supply houses. Practice folding them before you use them in the field, or you may spend half your time getting them back into their pouches.

> Other methods of light control include the use of a small mirror for very directional light, or a diffuser to place above the flower on bright days to soften the contrast and bring out the subtle pastel colors of the petals. The best diffuser is

an overcast sky. Many people think that a cloudy day is not the most advantageous time to photograph wildflowers. In fact, the color saturation is often at its best under these conditions.

Flash is another alternative to light control for wildflower photography. But, I must warn you that this method produces light of a harsher nature and often diminishes the subtle aspects of the plant colors. Add an 81A or 81B filter to warm the cold blue light of the flash. I, as do most serious wildflower photographers, prefer

> the use of natural light, with as little manipulation as possible.

> The best times to take advantage of the light for wildflower photography are early and late in the day. At these times, the light is warmer, and thus richer. In addition, the wind is usually lighter,

and in the early hours, dew can greatly enhance the delicacy of the image.

One of the problems with light and wildflower photography is that the light affects the material behind the subject, leading to a cluttered picture, with the subject flower lost in the scene. On sunny days, this problem can be overcome by casting a shadow across the background, while leaving the subject in direct light. The flower will jump out at you in the final image! This method of isolating the flower does not work on overcast days when you don't have as strong a contrast in the field of view. At this time your only alternative is to use flash if you desire an isolated subject. But, remember the above caveat regarding flash!

In the next article I will discuss the subjects of sharpness, depth-of-field control, and the use of the Kodak gray card to achieve proper exposure. Get your gear ready, for I can already hear those cotyledons popping!

Tom Potter is an INPAWS member, and a professional photographer, living in Martinsville.

### • 1997 INPAWS PROGRAMS AND FIELD TRIPS •

#### SATURDAY, MARCH 15, 1 PM

Native Plants for Your Garden, Sue Nord, Indianapolis Museum of Art's DeBoest Lecture Hall, 38th and Michigan Avenue, Indianapolis.

#### SATURDAY, APRIL 19, 1PM

Garlic Mustard pull at Shades State Park, and wildflower hike, led by Roger Hedge of the DNR's Division of Nature Preserves. Make reservations for overnight stay at Turkey Run Inn.

#### SUNDAY, APRIL 20, 9:30 AM

Garlic Mustard pull at Turkey Run State Park, buffet lunch at noon at the Turkey Run Inn, and wildflower hike led by Tom Swinford of the DNR's Division of Nature Preserves.

### SATURDAY, JUNE 7

Annual Plant Auction, time and location to be announced.

### SUNDAY, JUNE 29, 1 PM

See the gardens that allowed the Indianapolis Zoo to become an accredited Habitat Botanical Garden. Tour will be led by Katie Booth of the Zoo's Horticulture Staff.

### SATURDAY, JULY 26, 11 AM

Spring Mill State Park, lunch in the Oak Room and a hike, led by a park naturalist, to a glade above Donaldson Cave, and old-growth forest at Donaldson Woods.

#### SATURDAY, AUGUST 23, 2 PM

Tour of Spence Nursery in Muncie, followed by a pitchin picnic at Mounds State Park in Anderson. Activities will be led by Kevin Tungesvick.

### SATURDAY, SEPTEMBER 13, 10 AM-1PM

Plant and seed sale and slide presentation of plants offered for sale, at Holcomb Gardens on the Butler University campus, followed by a tour of the gardens and the prairie planting.

### SATURDAY, OCTOBER 4, 7:30 AM

A one-day bus trip to three Indiana Dunes sites, Ivanhoe Dune and Swale, Miller's Woods, and West Beach. Hikes led by Paul Labus with The Nature Conservancy and INPAWS member Barbara Plampin of the Shirley Heinze Environmental Fund. We will stop on the way home at Jasper Pulaski State Fish and Wildlife Area about sunset to see sandhill crane migration, and then have dinner at a West Lafayette restaurant.

### SATURDAY, NOVEMBER 8

Fourth Annual Meeting at DowElanco, time to be announced.

### FRIDAY, DECEMBER 5, 5-10PM

Annual holiday party at the home of Carolyn and Peter Harstad.

Notices will be sent in advance. For more information please call Kevin Tungesvick • 317-354-2775

Indiana Native Plant and Wildflower Society  MEMBERSHIP APPLICATION/RENEWAL					
Annual dues pertain to the fiscal year January 1 through December 31. Dues paid after September 1 are applied to the following fiscal year.					
☐ Student \$10	☐ Individual \$18 ☐ Family 5	\$25	☐ Sponsor \$250	☐ Patron \$100	☐ Corporate \$500
NAME _			TELEPHON	NE	
ADDRESS _ CITY _ COUNTY _ How did you	hear about us?		STATE NEW		ZIP RENEWAL 3/97
Gifts do help. INPAWS donors at the Patron, Sponsor and Corporate levels will receive special recognition. All donations above Student, Individual and Family dues are most appreciated and can aid our mission. Donations are tax-deductible to the extent provided by law.    Would like to help on the following committee(s):   Annual Meeting   Auction   Communications     Governance   Historian   Hospitality   Membership     Native Plant Education   Native Plant Rescue     Newsletter   Programs/Field Trips     Publications   Publicity   Special Projects     Speakers Bureau   Volunteers Coordinator     Other					
Please complete this form and mail, along with your check made payable to:  Indiana Native Plant and Wildflower Society, or INPAWS  c/o Ruth Ann Ingraham • 6106 Kingsley Drive, Indianapolis, IN 46220.					

# Become a Certified Plant Rescue Team Leader!

The Plant Rescue Committee's philosophy is that while ideally, natural areas should be preserved intact, we recognize that plant rescue affords a wonderful opportunity to save selected plants from sites destined for imminent destruction.

Sue Dillon and Don Miller, Plant Rescue Committee Coordinators, have been very busy during the fall and winter months, developing guidelines for plant rescue operations which may be conducted by INPAWS members. These guidelines and procedures are intended to:

- Allow you to act as INPAWS plant rescue agents while allowing INPAWS to coordinate the rescue efforts.
- Allow INPAWS to have teams in many locations throughout Indiana that can respond in an efficient manner to situations in their own areas.
- Will assure that INPAWS plant rescue standards are met.

Some of the basic concepts are as follows:

- For safety reasons, teams of at least two persons are necessary.
- The team leader must be an INPAWS member certified for plant rescue.
- Arrangements for the rescue must be made ahead of time, so the landowner and/or construction foreman know when you'll be on the property. Try to get everything done the first time out, but if a return visit is necessary, it must be scheduled in the same manner as the first rescue attempt.
- The Plant Rescue Committee must be contacted before any work is done.
- You and your team members will be able to keep some of the rescued plants for your own collections. Some will be used for restoration projects and some will be sold at INPAWS auctions and plant sales.

The first Certification Workshop will be held at the DeBoest Lecture Hall at the Indianapolis Museum of Art on Saturday, March 15th, from 10:00 to 11:30 AM, and additional ones may be held as necessary. Please bring your favorite field book or reference.

All INPAWS members are invited to become certified and take part in as many native plant rescues as they can. INPAWS members can help by notifying us of potential plant rescue sites in their communities, such as proposed sewer and construction projects, and other commercial development.

If you can help, please call

Sue Dillon • 317-844-3558 Don Miller • 317-327-7416 (days)

so that we can save more of our precious native species!

(Even if you miss this meeting, please still call Sue or Don).

Native Plant and Wildflower Society

6106 Kingsley Drive Indianapolis, IN 46220

Address Correction Requested

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