



inpaws journal

Indiana Native Plant and Wildflower Society

Summer 2012

Denizen of the Dark

French's shooting star occupies a lonely niche

by Michael Homoya

Plant Profile



"...one of the most attractive and interesting members of our flora, as well as one of the rarest."

Turkey vultures soar overhead in ever-increasing numbers; breeding chorus frogs and spring peepers create a deafening din from woodland vernal pools; "fibree" calls of the eastern phoebe ricochet from cliff to cliff in rugged sandstone canyons -- all of these are welcome signs of the early spring season in the hill country of south central Indiana. Another welcome sign of spring, albeit somewhat less dramatic than the previous examples, is the emergence of woodland wildflowers known to botanists as spring ephemerals. Plants classified as spring ephemerals are the "here today-gone tomorrow" variety of wildflower. Their entire life cycle is often completed during the first few weeks of spring, only to disappear until re-emergence the following year. Fortunately, spring ephemerals are typically quite common in southern Indiana woodlands, providing a spectacular floral display unrivaled anywhere in the natural landscape of Indiana. Literally carpeting the forest floor are species such as toothwort, trout lily, Dutchman's breeches, spring beauty, harbinger-of-spring and squirrel corn.

Not all of the early spring flowering plants of Indiana's hill country are ephemeral, however. Some species persist throughout most, if not all, of the spring and summer seasons. One such plant, the French's shooting star (*Dodecatheon frenchii*), is one of the most attractive and interesting members of our flora, as well as one of the rarest. A member of the primrose family, French's shooting star is similar to its only Indiana relative, the common shooting star

Michael Homoya is a plant ecologist and botanist for the Indiana Division of Nature Preserves, a position he has held since 1982. He has two degrees in botany from Southern Illinois University. Regarded as one of the finest field botanists of the Midwest, he is author of Wildflowers and Ferns of Indiana Forests: A Field Guide (IU Press, 2012) and Orchids of Indiana (Indiana University Press and Indiana Academy of Science, 1993).

(*Dodecatheon meadia*).

Both are perennials, each having a basal rosette of leaves and a cluster of pink or white flowers which resemble tiny shooting stars. The French's shooting star can be distinguished from the common shooting star by its thin, light green leaves, each with an abrupt narrowing of the lower leaf blade into a stalk. The common shooting star has thicker, darker green leaves which lack the abrupt narrowing of the leaf blade and hence, have no noticeable stalk. As well, French's shooting star occurs only in a

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very specialized habitat, whereas the common shooting star occurs in a great variety of habitats.

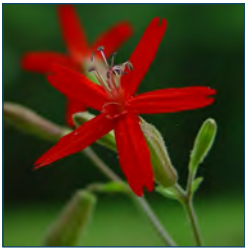
Sandstone cliff overhangs (also called rock-houses or shelter bluffs) and ledges are the only environments where French's shooting star have been found. These environments are normally quite dark, sheltered from the wind and relatively cool and moist. Most kinds of plants do not do well under these poorly illuminated conditions; indeed, French's shooting star has few, if any other, species as companions. Apparently this is a good example where the

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Science or Fiction?

Scientists coax flowers from Pleistocene Seeds

by Patricia Happel Cornwell



© Dan Tenaglia

Indiana natives bladder campion, fire pink, and star campion are related to 32,000-year-old Siberian seeds resurrected by scientists

It's the stuff of science fiction. Flower seeds lie dormant in the permafrost of Siberia for 32,000 years, buried and forgotten by an Ice Age squirrel and unearthed by Russian scientists in the third millennium. In their laboratory, they coax the seeds to germinate, and the plant grows and flowers. From this experiment they will go on to "resurrect" other Pleistocene species – and not just flowers. They hope to find viable frozen tissue of such animals as the mammoth, as well as that squirrel that never returned for its buried seeds, so that they can bring those species back to life as well.

Scientists at the Institute of Cell Biophysics of the Russian Academy of Sciences published their account of the regeneration of an arctic *Silene stenophylla* plant in a recent issue of Proceedings of the National Academy of Sciences of the United States.

The *Silene stenophylla* is the oldest plant ever to be regenerated, and its modern counterpart – narrow-leaved campion – still grows in the same area of northeastern Siberia. Scientists say the specimen growing in the Russian lab is fertile, having produced typical flowers and viable seeds. It has opposite leaves and white flowers with five united, notched petals.

The research team found the *Silene* seeds in one of several fossilized squirrel burrows in an ice deposit on the bank of the Kolyma River. The animals had lined their burrows first with hay, then with fur, creating a perfect "cryobank." Soon after the seeds were cached, the burrows were buried with windblown earth. The seeds were found 125 feet below the tundra in layers that also contain bones of mammoth, woolly rhinoceros, bison, deer and horse.

The modern version of *Silene stenophylla*, narrow-leaved campion, is not found in Indiana, but it is found in the northern US as far south as the Rocky Mountains. There are 300 species of *Silene* worldwide, 15 in Indiana alone. Campions (*Silene*) are cousins of pinks (*Dianthus*), both genera being in the

Caryophyllaceae family. The relation is visible in the similarity of their flower structure.

In Indiana, the *Silene* genus includes plants as diverse as the fringed, white-flowered star campion (*Silene stellata*), bulbous bladder campion (*Silene vulgaris*), night-blooming evening campion (*Silene latifolia*), brilliant red fire pink (*Silene virginica*), and six species of catchfly.

The Russian team plans to attempt to revitalize other extinct plant forms. Both Russian and Japanese scientists are racing to find preserved mammoth tissue in Siberia, in hopes of being the first to regenerate an actual Ice Age

“seeds were found 125 feet below the tundra in layers that also contain bones of mammoth, woolly rhino, bison, deer and horse.”

mammoth.

This brings up an interesting question. If 30,000-year-old species of animals and plants are introduced into the modern ecosystem, will they integrate themselves seamlessly into our fauna and flora? Or will they elbow their way in as "exotic invasives"? We all know the old adage that a weed is a flower in the wrong place. Will these ancient species become pests because they are in the wrong time?

Patricia Happel Cornwell grew up on a farm in Floyd County, where she first became enamored of wildflowers. She is a graduate of Spalding University, Louisville, and the former women's editor of the New Albany Tribune. She and her husband John live on 19 acres registered as a National Wildlife Federation Certified Wildlife Habitat in rural Harrison County, where a neighbor child nicknamed her "Flower Lady." She became an Indiana Master Naturalist in 2010.

Dime at a Time for INPAWS

Late breaking news!

Whole Foods Markets has chosen to support INPAWS during July, August, & September at both central Indiana locations. The company offers 10¢ per bag to customers who reuse their own bags. Customers can accept their refund, or direct the cashier to donate the cash to the store's chosen non-profit through the One Dime at a Time program. The Whole Foods Markets are located on east 86th Street in Nora and in Clay Terrace in Carmel. 🌱

Denizen *from page 1*

adage “to each his own” is applicable in the natural world, for French’s shooting star seems to be quite happy by itself in an environment other species avoid.

Depending on weather conditions, French’s shooting star emerges from the sandy soil below sandstone overhangs as early as the month of March. As the temperature and day length increase, plants develop rapidly until flowering occurs in mid-April to early May. At flowering time the leaves are fully developed, bearing a striking resemblance to certain kinds of domestic leaf lettuce. This resemblance helps to explain another vernacular name for the plant, cliff lettuce. It is not known if the leaves are even edible, let alone desirable for a salad or greens, but one must admit they do look appetizing! Collecting and eating the leaves are strongly discouraged however, given the rarity of the plant and the unknown health effects from ingestion. As summer progresses, the leaves begin to lose their vigor, turning yellow and ultimately withering away, leaving only a dried stalk and seed capsules as evidence of the plant’s presence.

French’s shooting star is named for its discoverer, George Hazen French, a Southern Illinois University professor who collected the plant in the Shawnee Hills of southern Illinois in 1871. For many decades after French’s discovery, it was thought that the species grew only in southern Illinois, but it is now known that it also occurs in a few isolated areas of Arkansas, Indiana, Kentucky and Missouri. Interestingly, a former student of a colleague of Dr. French’s was the

first to recognize the occurrence of French’s shooting star in Indiana. Dr. Julius Swayne, a native of Southern Illinois, ventured into the rugged landscape of Crawford County, Indiana, in 1976 on the hunch that French’s shooting star could be found. His hunch was quite right, as he found plants during his first day out!

By 1986, the Division of Nature Preserves had learned of 12 different locations for the species. Today there are almost 30, but they nonetheless occur within a radius of about ten miles, all confined to Perry and Crawford counties. The



plant is rare throughout its entire range and the Indiana DNR, Division of Nature Preserves allots it State Rare Status. Measures have been taken to protect some of the Indiana populations (one site was purchased with funds from the Indiana Natural Heritage Protection Campaign).

French’s shooting star is truly a botanical treasure. If you are fortunate enough to see it, take great care in leaving it and its environment as undisturbed as possible. This will help ensure the continued existence of Indiana’s most attractive denizen of the dark.

Reprinted from Outdoor Indiana magazine with the Indiana DNR’s permission. Subscribe for \$12 for six 48-page full-color issues at OutdoorIndiana.org or by calling (317) 233-3046.



Whole Foods Markets will collect donations for INPAWS during July, August, and September.

Also called “cliff lettuce,” the beautiful and rare French’s shooting star prefers sandstone cliff overhangs – dark, sheltered, cool, and moist – where few other plants find enough light.

INPAWS Historian

Interview

INPAWS historian Ruth Ann Ingraham shows off a favorite native that volunteered in her garden. Aralia racemosa or American spikenard can grow to four by six feet tall and puts on umbrels of airy white flowers followed by purple berries.

Ruth Ann Ingraham, one of INPAWS' founders, past president, and current historian and Nancy Hill, INPAWS Journal editor, had the following email conversation:

NH: Ruth Ann, you've worn lots of INPAWS hats after being one of its founding members almost twenty years ago, and you're still one of its most active volunteers. What are some highlights that stand out for you in your many years of INPAWS involvement?



RAI: Our tours and field trips, including two overnight tours, one that took us to St. Louis and the Missouri Botanical Gardens with Kay and George Yatskevych as our guides (a superlative experience all around) and a 2010 trip when we visited several gardens in the Chicago region. Everyone on that trip agreed we should do something similar again. We're still waiting for someone to take it on.

Kevin Tungesvick planned our early field trips, many of which exposed us to prairie plant remnants in the northwest quadrant of the state. This was eye-opening to me and influenced me to create a small meadow next to my cabin in Brown County. More recently, Mike Homoya has planned our excursions that take us all over the state. I've enjoyed the wildlife of dunes, fens, bogs, seeps, prairies, swamps, forests.

I also think we give so much to the community. INPAWS and Letha's Fund for Youth Outdoors

have made small and large grants that total in the tens of thousands of dollars. Our monies have helped schools establish native plant gardens, contributed to the ability of land trusts to save valuable tracts of land and gotten kids outdoors in nature.

NH: If money wasn't a factor (which of course it always is), what would be your dream INPAWS event or trip?

RAI: I love Door County, Wisconsin, and hope INPAWS could someday go there to visit the Ridges and the nature center. I understand that pink lady's slipper orchids bloom in profusion in late spring.

NH: Do you think INPAWS as an organization has had a pivotal moment and if so, what is it?

RAI: Yes. It was in 2008 when Douglas Tallamy was the keynote speaker at the Annual Conference. I remember saying afterwards that his passion and scientific approach brought everything we stood for together. What we as an organization had been striving for made sense and we were on the right track. And who wouldn't plant an oak tree, or several, after hearing Doug speak? We have helped bring him back to Indiana twice since then, maybe more than that. He (and immediate past-president Tom Hohman) can be credited with stimulating interest that added two new chapters in the southwest and northern regions of our state.

NH: Ruth Ann, you are the INPAWS Historian. In one sentence, what is this job?

RAI: I keep a repository of the INPAWS history going back to its very beginning in 1993 – minutes, mailings, journals, annual conference agendas – and I compile an annual summary for anyone who's interested.

NH: What tasks go into this?

RAI: I organize and maintain several three-ringed binders filled with information from our early years, when everything was documented on paper. More recently, Board and Council minutes and financial reports are distributed electronically and I store those in my computer which I back up regularly to an external hard drive. With the help of INPAWS member Vaughn Bidwell, we plan to make duplicates of everything. We're seeking the advice, and possible assistance, of the Indiana Historical Society. This will be a wintertime project.

Historian - continued on page 6

What's On Your Mind?

Wild Ideas

By Patricia Happel Cornwell, Master Naturalist

If you're reading this INPAWS Journal, it's a fair bet you're fascinated by the beauty and complexity of plants. You probably have a shelf or two of plant books that you pore over when a UGO (Unidentified Growing Object) shows up in your yard or woods. Perhaps you've searched the web, looking for information about a wildflower or tree. We just have to know, don't we?

INPAWS wants to help you find answers to your plant questions. I have volunteered to scout out the answers if you, gentle readers, will provide us your burning questions. I'm a passionate amateur botanist and an Indiana Master Naturalist and, as a longtime journalist, a pretty good researcher.

For starters, here are a couple of questions that occurred to your editors and me.

Q: If I pull up invasives like garlic mustard by the roots, do I have to put them in a plastic bag to keep them from germinating, or can I just let the uprooted plants lie where they fall?

A: It depends. If the plants are newly blooming, it's pretty safe to let them lie where you pull them up. But look closely to see if any of the flowers are starting to go to seed. If there are seeds forming on the flower heads, get that plastic bag! Otherwise, you'll just be pulling garlic mustard in the same place every year. This applies to other invasives, too. Remember that garlic mustard is a biennial, so one year's efforts will not suffice to eradicate it. Long-term attention is necessary to deplete this pest's seed bank.

Q: I have a shady area in my garden that has spring ephemerals (Virginia bluebells, bloodroot, bellwort and trillium). What can I plant with them so I don't have a bare spot in July?

A: The bad thing about a "bare spot" is that something undesirable will fill it if you don't. If you plant ferns among your spring ephemerals, they will be green and shapely when the ephemeral foliage dies. You might try Christmas fern (*Polystichum acrostichoides*), wood fern (*Dryopteris spinulosa*), or dainty maidenhair spleenwort (*Asplenium trichomanes*). These do not have crowding habits and are nearly ever-green.

Another strategy is to interplant ephemerals with later-blooming perennials. I love prairie (or "downy") phlox (*Phlox pilosa*), which doesn't mind shade as long as it gets morning sun; its tall stems yield pink blossoms April to May. An excellent shade-lover is white foamflower (*Tiarella cordifolia*), which blooms April to June. Great blue lobelia (*L. siphilitica*) thrives in moist, dappled

shade and flowers in August and September. If your shady area is at the edge of a woods, like mine, you can get bursts of summer color with lavender wild bergamot (*Monarda fistulosa*) from June to September, orange jewelweed, aka spotted touch-me-not, (*Impatiens capensis*) from July to October, and showy purple New England aster (*Aster novae-angliae*) in September and October.

Now it's your turn. What's on your mind? E-mail Pat at flowerfeet@hughes.net and be sure to type "INPAWS Wild Ideas" in the subject line. Along with your detailed question, be sure to include your name, city or county, and a phone number. She may need to e-mail or call you for more details.

New INPAWS Members

North

Kristi Bly
Mary Davis
Steve & Cookie Ferguson
Gae Holtzman
Lucie Martin
Steven & Kate Shantz
S. Jeanne Spears

Southwest

Nancy Gehlhausen
Jane & Gregg McManus

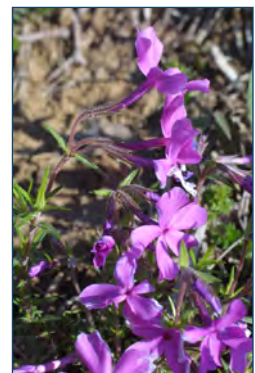
West Central

Michael Huft
Charlotte Gyllenhaal

Central

Anne Altor
Andy & Cheryl Andrews
Susan Fordyce
Jackie Foster
Andrea R. & Mike Habeck
Rita Hupp
Jeanette Jefferis
Christi J Kramer
Shawndra Miller
Katherine Newkirk
Mary Jane Olinger
Dan & Paula Shepley
Marilyn Smith & James Farley
Teresa Trierweiler

Native Plant Q&A



Steven J. Baskauff – bioimages.vanderbilt.edu

Jewelweed (top) and downy phlox are useful natives to interplant with spring ephemerals in the shady garden.

Letters

To the Editor:

I want to applaud the 2012 Spring issue of the INPAWS journal. As usual, after receiving it in my mail I immediately sat down and read the journal cover to cover. I loved Lee Casebere's opening essay which combines his love for native flowers with art, literature and history. Lee expands our minds to picture the way it was during early settlement days and reminds us to enjoy and protect the remnants that remain in Indiana.

From time to time, while serving in one position or another with INPAWS, I have received native plant society newsletters from around the coun-

Wendy Ford, volunteer extraordinaire, posed with Ken Remenschneider during a work day at Cold Spring School.



David Ford

try. Ours is the best; the most recent one serves as a prime example.

Wendy Ford, thank you for serving as the INPAWS journal editor for the past seven years. And welcome to Nancy Hill and Kit Newkirk who will coordinate our upcoming issues. INPAWS has the very good fortune of attracting bright and creative people, committed to sharing information in a visually appealing format, to step into these roles. Hooray!

Ruth Ann Ingraham
Historian



Historian *continued from page 4*

NH: How does INPAWS and its membership benefit from having historical records?


RAI: INPAWS is unique in the state of Indiana. Our organization is the first devoted to understanding the critical role of native plants in our environment. It's important to be able to look back to our beginning – who made it happen, what were the objectives – and then review what we've done over the years to fulfill those well-considered goals.

It's interesting to realize that invasive plant species were not part of our lexicon in 1993. Now, facing down alien species is one of our primary roles. Central Chapter even has an active in-the-field SWAT team that eradicates noxious invasives.

NH: I know you as many people – a writer, an activist, an organizer and volunteer, a gardener,

An early INPAWS field trip influenced Ruth Ann to create a small meadow next to her cabin in Brown County.

a world traveler, a curious student of the natural world, a mother and a good friend to many. What gives you the most joy today?

RAI: Hmmm. Sipping a cup of hot coffee on the deck of my Brown County cabin as dawn breaks and the avian chorus begins. Also going on mini-trips with my Pittsburgh grandson, Connor Gable. Last year we attended a Marine Science Camp near Chincoteague National Wildlife Refuge, Virginia. 

Invitation

The next two board and council meetings of INPAWS will be August 14 and November 13 at 3 p.m. at the offices of the Nature Conservancy in Indianapolis. Any INPAWS member is welcome to attend.

INPAWS Annual Conference 2012

It's all about the plants

Once again, a highlight of this coming fall will be a delightful Saturday spent mingling with friends, meeting new friends, and learning about many facets of native plants: INPAWS' 20th Annual Conference – AC2012.

The last two conferences have focused our attention on biodiversity and conservation. The theme for AC2012 brings us back home to the basics of botany and focuses on the identification of plants and their occurrence in nature. The better we can identify native plants, the better we can be advocates for them. This year's conference co-chairs, **Jeff Pitts** and **Mike Homoya**, promise a terrific line-up of speakers and topics. **Rob Naczi**, one of the leading botanists/taxonomists in the world is the morning keynote and the afternoon keynote is **James Locklear**, from Nebraska's Lauritzen Gardens.

Speakers

Dr. Rob Naczi

Arthur J. Cronquist Curator of North American Botany, the New York Botanical Garden
Co-editor, *Sedges: Uses, Diversity and Systematics of the Cyperaceae* (Missouri Botanical Garden Press, 2008). Currently revising one of the most commonly used manuals to our North American flora: *Manual of Vascular Plants of the Northeastern United States and Adjacent Canada* (Gleason & Cronquist)
PhD., University of Michigan, Ann Arbor

James Locklear

Director of Conservation at the Lauritzen Gardens in Omaha, Nebraska
Author, *Phlox: A Natural History and Gardener's Guide* (Timber Press, 2011)
M.S., Southern Illinois University, Carbondale

Dr. Paul Rothrock

Professor and Chair, Department of Earth and Environmental Science, Taylor University
Author, *Sedges of Indiana and the Adjacent States, the Non-Carex Species* (Indiana Academy of Science, 2009)
Ph.D., Pennsylvania State University, University Park

Sally Weeks

Instructor, Purdue University
Author, *Shrubs and Woody Vines of Indiana and the Midwest: Identification, Wildlife Values, and Landscaping Use* (Purdue University Press, 2012) and *Native Trees of the*

Midwest: Identification, Wildlife Values, and Landscaping Use (Purdue University Press, 2010). M.S., Purdue University

Kay Yatskievych


Research Associate, Missouri Botanical Garden
Co-author, *Indiana Vascular Plants Catalogue* (due out 2012)
and author, *Field Guide to Indiana Wildflowers* (Indiana University Press, 2000)
B.A., Indiana University, Bloomington

Mike Homoya

Indiana State Botanist/Plant Ecologist, Department of Natural Resources
Author, *Wildflowers and Ferns of Indiana Forests: A Field Guide* (Indiana University Press, 2012) and *Orchids of Indiana* (Indiana Academy of Science, 1993)
M.S., Southern Illinois University, Carbondale

Charles Deam

Sam Carman with the IDNR Division of Forestry performs his autobiographical impersonation of the irascible, opinionated and accomplished hero of natural Indiana, Charles Deam.

Sam is Education Director for IDNR-Division of Forestry. He holds an M.S. in Natural Resources from Ball State University and in 2010 won the President's Award from the Environmental Education Association of Indiana. 

Details AC2012

WHEN: Saturday,
November 3,
2012 7:45 a.m.
- 5 p.m.

WHERE: The
UIndy Hall at
University of
Indianapolis,
Schwitzer Student
Center

COST: INPAWS
members: \$50
(early)/\$60

Non-members -
\$65 (early)/\$75

Students - \$35

2012 Garden Tour & Plant Sale

Hats Off

Garden Tour

The tour was held in April to catch the spring ephemerals. The gardens were wonderful, even though our warm spring launched the bluebells, trillium, wood poppies and other spring ephemerals to being a little more ephemeral than usual.

Huge INPAWS thanks to **Mary Miller** for heading up the tour that brought almost 200 people to see how Indiana native plants can be used creatively and beautifully in gardens.

Special thanks to the homeowners, **Linda Shikany, Ruth Ann Ingraham, Matt Newell, and George and Betsy Wilson** for allowing people to walk the gardens and for answering visitors' questions.



Betsy Wilson guided visitors through her bird and butterfly garden during the April 21 INPAWS Garden Tour.

Thanks to **Amy Perry** for maps, answers, more; to **Ann Foster** for the scavenger hunt; to **Bill Rice** and **Hamilton County Master Gardeners**; to **Wendy Ford** for handling publicity.

And big thanks to all the garden volunteers: **Barbara Hamilton, Anne Jay, Carl Smith, Christy Krieg, Linda Haas, Christine Zemer, Joe Dwenger, Melissa Moran, Ken White, Elaine Whitfield, Joe Whitfield, Michelle Arfman, Steve Duhamell, Darla Duhamell, Jane Hessler, Amy Perry, Jeannine Mattingly, Holly Faust, Cathy Roth, Emily Roark, Kelly Roark, Ann Foster, Gain Mrenca, Jeanne Bubala, Debra Lloyd, Lois Ephlin, Jane Sweet, and Barry Miller.** 

Plant Sale


The 2012 INPAWS Native Plant Sale on May 12 was once again a huge success, thanks to the leadership and efforts of **Ross Nelson** and his unofficial but very real assistant (and wife), **Jackie Luzar**. The sale is INPAWS' largest annual fund-raiser, supporting many of our programs and education efforts.

We had a change of venue this year to Park Tudor School on the north side of Indianapolis.

On Friday night the volunteer team was already in the thick of it, hauling plants, checking in donations, identifying and pricing. Plants continued to arrive on Saturday morning. New items this year included Indian cucumber root (*Medeola virginica*), Dutchman's pipe vine, pale-spiked lobelia, and the state endangered Virginia bunchflower. Live auction goodies included a beautiful sassafras, swamp rose, queen of the prairie, viburnums, and an immense pot of prairie dock. Many buyers – first-time attendees, master gardeners and seasoned customers who arrived with itemized lists – expressed positive remarks on this year's selection and location.

On Saturday morning before the sale, **Janet Creamer** of Indy Parks gave a fascinating talk to an audience of more than eighty, on "Native Plants to Attract Birds."

Generous business donors included **Spence Nursery, Cardno JF New, Munchkin Nursery and Gardens, Mark M. Holeman Landscaping, and Native Plants Unlimited.**

Thanks to all donors and volunteers including: **Dan & Sophie Anderson, Robert Aram, Nancy Ayers, Gene Bush, Michael Campbell, Anna Chase, Deb Ellman, Daryn Fair, Wendy Ford, Marilyn Frohberg, Rich Gotzhall, Virginia Harmon, Denice Haines, Nancy Hill, Tom Hohman, Ruth Ann Ingraham, Ellen Jacquart, Judith Lieberman, Sue Nord Peiffer, Dee Anne Peine, Ruth Penner, George Peregrin, Amy Perry, Susan Pratt, Kelly Spiegel, Frank Sherer, Dawn Stelts, Mike Stelts, Deb and Jim Snyder, Steve Trippel, Kevin Tunesvick, Susan Zellers,** and many more! 

Chapter News

Welcome New North Chapter

From small beginnings two years ago, a core of volunteers built enough interest to form a new INPAWS chapter. The new chapter, based in St. Joseph and Elkhart Counties, includes counties across northern Indiana.

On March 25 approximately 25 INPAWS members met at the Elkhart Environmental Center, adopted bylaws for the proposed chapter, and elected officers including Steve Sass, president. The group immediately started making plans for an active first year.



Left: Newly elected officers and friends of the newly formed North Chapter are from left, Scott Namestnik, Sue Stuckman, Lindsay Grossmann, Sarah Sass (front), John Smith, Kristi Bly, Steve Sass, Deb Marr, Abigail Lima.



Standing at Holliday Park with 29 trash bags of garlic mustard are (L-R) Sharon Horvath, Michelle Clayton, Jackie Luzar, Ross Nelson, Rita Hupp, John Montgomery, and Tom Hohman. Also helping were Don Miller, who took the photo, and Betsy Ingle.

South Central Chapter

President **Steve Dunbar** reports that many INPAWS fliers were put into the hands of visitors to the Morgan County Master Gardener Spring Festival by **David Mow** and the Falls of the Ohio Earth Day Celebration by **Deb Farrell**.

Southwest Battles Kudzu


On May 19, 109 volunteers with the Southwest Chapter of INPAWS and Mesker Park Zoo & Botanic Garden in Evansville pulled kudzu from around invaded trees in the largest kudzu patch (five acres) in Indiana. SWINPAWS and Mesker Park partnered and sponsored this event for Plant Conservation Day.

They arranged for a sky art photo to be taken with the volunteers standing in the patch forming a circle with a cross marked through it. The photo was entered in a competition with other zoos across the country. After the pull, native trees were planted in Mesker Zoo to commemorate Evansville's bicentennial.

On July 21st **Ron Giles** will share his photos and insights on Indiana Orchids. A gold-level Master Gardener and member of the American Orchid Society, Ron is nationally known for his photography of plants and birds. SWINPAWS is proud to have Ron and his wife Sharon as members, and has invited other groups in the Evansville area interested in birding and native plants to join them for this exciting lecture. 9:30 a.m. at the Oaklyn Branch Library on Oak Hill Rd, Evansville. From **Carol Slow**, SWINPAWS Secretary.

Central Chapter Invasive's Swat Team — SOLD!

The Central Chapter's Invasives Swat Team has for years battled invasives like honeysuckle, garlic mustard, purple wintercreeper, and English ivy in parks and nature preserves in the Indianapolis area. For the first time they offered their services to a high bidding private landowner at the INPAWS auction. Their offer of 18 man-hours raised \$200.

To join the fun, contact Tom Hohman at pastpres@inpaws.org 

@inpaws.org

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Ross Nelson	

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INPAWS JOURNAL is published quarterly for members of the Indiana Native Plant and Wildflower Society. Material may be reprinted with the permission of the editor.

All are invited to submit articles, news, and event postings. Acceptance for publication is at the discretion of the editor. INPAWS welcomes differing points of view.

Please submit text and photos (300 ppi) via e-mail to journal@inpaws.org or via land mail to INPAWS JOURNAL, 5304 Carrollton Avenue, Indianapolis IN 46220. Submission deadlines for specific issues are:

Spring – February 23 for April 1 mailing
Summer – May 23 for July 1 mailing
Autumn – August 23 for October 1 mailing
Winter – November 23 for January 1 mailing

Mission

To promote the appreciation, preservation, conservation, utilization and scientific study of the flora native to Indiana and to educate the public about the value, beauty, diversity, and environmental importance of indigenous vegetation.

Membership

INPAWS is a not-for-profit 501(c)(3) organization open to the public at www.inpaws.org.

Share Online

Please direct information of interest to webmaster@inpaws.org.

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butterflymomok gardenweb.com



Almost two inches long after feeding on leaves of tulip poplar, this caterpillar will soon begin to morph into an Eastern tiger swallowtail butterfly.

A Natural Pairing

Larvae Depend on Natives

Many of us love to see birds and butterflies in our gardens, but act as if insects are from the dark side. They're the creepy crawlies that bite, jump, and chew beautiful green leaves to a ragged mess. Gardeners are offered hundreds



Our tulip poplar tree (*Liriodendron tulipifera*), a member of the magnolia family, is a host plant for the Eastern tiger swallowtail

of products to spray, dust, and feed their plants to deter or kill these “pests”. But 96% of birds rely on insects to feed their young. No insects, no birds. And no native plants, no insects. Insects must live in proximity to specific plants – plants whose chemicals they can digest. These are native plants and they are the foundation of an intricate food chain and the diverse ecosystem we enjoy.

Native plants are also vital to the beautiful

variety of butterflies in our woods, fields, and gardens. Even though adult butterflies can take nectar from many different blossoms (including non-native flowers) their caterpillars are chemically equipped to eat only very specific native plants (sometimes only one). Without these larval host plants, there would be no caterpillars and therefore no butterflies.

One natural pairing is the tulip poplar and

Host Plants



All © 2012 Lynne Tweedie



tiger swallowtail butterfly. After mating, the female adult butterfly lays her eggs on the tree's leaves. When a caterpillar hatches, it is literally sitting on its food. It will curl the leaf edges together with silk and be able to feed while hidden. With this nourishment, it continues its growth through chrysalis to adult

butterfly. The swallowtail caterpillars do not damage the trees. In fact, the butterflies help pollinate the tulip poplar's blooms. A win-win of nature. 🌱

Above: female Eastern tiger swallowtail. Left: dark form of the female Eastern tiger swallowtail mimicking Indiana's pipevine swallowtail, considered distasteful by many predators.

Walk the Shore

Hikes

Noel B. Pavlovic of the U.S. Geological Survey will lead a hike at the Miller Woods Unit of the Indiana Dunes National Lakeshore on Saturday, July 21 from 10 a.m. to 1 p.m. Central Daylight time.

We will walk forward in geological time across dune ridges towards Lake Michigan. On the way we will have views of idyllic interdunal ponds and mesic black oak groves, savanna, and woodland. We may see the beginning blooms of *Liatris*, asters, and goldenrods, and we might catch a glimpse of the federally threatened Pitcher's thistle (*Cirsium pitcheri*).

The two-mile trail is mostly level except for a few sandy dune climbs and one crossing on logs (walking stick provided). Mosquitoes and other annoying insects may be prevalent and poison ivy is occasional.

Questions? Contact **Noel Pavlovic** by email (npavlovic@usgs.gov or phone (219) 921-4743 by 20 July 2012. No RSVP required. We will hike rain or shine unless there are severe thunderstorms. 🌿



Grants & Awards

INPAWS Funds at work across IN

Jackie Luzar and her Grants and Awards committee awarded more than \$5000 to projects to "conserve, utilize, study, and/or educate" about native plants. Information on 2013 grants is available at inpaws.org. 2012 small grants went to:

Allen County – Contribute native plants to an existing garden space at Indian Village Elementary School in Fort Wayne and build connections between the natural world and the school's high-achieving but economically challenged students.

Daviess County – Add native plants to Meredith Plaza, a public space in downtown Washington and educate visitors with signage, educational materials and events.

Dubois County – Create a prairie plant community at Jeffers Nature Preserve at Huntingburg by replacing 1.5 acres of turf with native tallgrass prairie plants.

Gibson County – Help establish a demonstration pollinator garden at Patoka River National Wildlife Refuge, emphasizing plants that host a variety of native pollinators.

Hamilton County – Increase diversity and develop a native plant base for the restoration of

natural habitat within Cool Creek Park and establish a seed bank of native wildflowers adapted to the park's habitat to be used to fill areas where Japanese honeysuckle has been removed.

Jackson County – Establish native plantings for aesthetic and educational purposes at Borchers' Chapel in Seymour, the site of an historic church, nearly a century and a half old, and a new church facility.

Johnson County – Establish a three-acre

July 21 — Indiana Dunes

Noel Pavlovic leads through coastal dune and wetland flora.

August 11 — West-Central

Sally Weeks focuses on wild shrub ID

September (TBA) — Shades

Andrew Methven on fungi

October 6 — West-Central

Bill McKnight on Mosses and Liverworts

Look for more hike information on inpaws.org, the INPAWS blog, in our monthly email updates and postcards mailed to members.

native forest in Grizzly Park at Franklin College as part of a campus and community effort.

Marion County – Help establish a prairie and rain garden as part of a project to build a multi-purpose Community Classroom with plantings and interpretive path for the University of Indianapolis and the University Heights neighborhood.

Help eradicate invasive species and replace them with native plants in the Native Plant Discovery Program at Jameson Camp to create sustainable forest for native plants and animals, as well as hundreds of visitors and campers.

Transform a retention pond into a natural habitat at Castleton United Methodist Church. The project was inspired by a class on Rain Gardens and Natural Habitats by the Marion County Master Gardeners Association and SustainIndy. 🌿

Children Outdoors

“Follow a trail and discover native plants, wildlife and history”

This is just one of 11 outdoor and nature activities suggested in the Children’s Outdoor Bill of Rights, developed by the Indiana Department of Natural Resources. In May 2011, INPAWS allied with DNR by endorsing the Bill of Rights. Thirty five organizations have now signed on to the concept, encouraging Indiana’s kids to spend more time out-of-doors.

After completing every activity on the list, a child can download a Hoosier Outdoor Child

certificate. The activity checklist is available at childrenplayoutdoors.dnr.IN.gov. The website also links to online resources, including DNR’s “Discovering a Sense of Place” booklet. Also check out childrenandnature.org, a national movement that helps families and institutions connect kids with nature.

Please share your passion and respect for the natural world with the young people in your lives.

INPAWS’ Letha’s Fund gives funds to allow schoolchildren to go on outdoor fieldtrips. So far in 2012, we have given grants to:

Guion Creek Elementary - first grade (**Marion**); Holland Elementary - fourth grade (**Elkhart**); United Urban Network - many ages (**Lake**); Kitley Elementary - second grade (**Marion**); Eastern Hancock - second grade (**Hancock**); Union City - sixth grade (**Randolph**); IPS #27 - second grade (**Marion**); and Kitley Elementary - sixth grade (**Marion**).

Letha’s Fund accepts applications throughout the year. Information and guidelines can be found at inpaws.org



When the North Chapter was officially recognized, the INPAWS Northeast Chapter, which had been dormant for some time, was officially disbanded. Members from the Ft. Wayne area were included in the new North Chapter, while those from the Muncie area were assigned to the Central Chapter.

Children’s Outdoor Bill of Rights

1. Explore and play outdoors in a safe place.
2. Follow a trail and discover native plants, wildlife and history.
3. Experience traditional outdoor activities like fishing or hunting.
4. Discover and celebrate Indiana’s past.
5. Camp under the stars.
6. Climb a tree.
7. Visit a farm.
8. Plant a seed or tree and watch it grow.
9. Splash and play in streams, lakes and ponds.
10. Enjoy the outdoors using all the senses.
11. Ask questions, find answers and share nature with a friend.

From Our President

Art Hopkins

I am continually impressed with how many people work together so well, and with so much talent, to advance INPAWS’ mission: *To promote the appreciation, preservation, conservation, utilization and scientific study of the flora native to Indiana and to educate the public about the value, beauty, diversity and environmental importance of indigenous vegetation.*

Already this spring, we offered a Garden Tour featuring native plants in spring bloom. We held our annual Plant Sale, one of my favorite INPAWS activities, a cheerful hubbub of a morning, and a great

chance to learn about native plants and pick up some bargains.

INPAWS Chapters around the state remain active. Our fairly new Southwest Chapter, capably led by **Davie Sue Wallace**, has planned a really impressive year of educational, recreational/social, fund-raising, and service projects in their region.

With great pleasure, I announce our brand-new North Chapter, centered in St. Joseph and Elkhart Counties. President **Steve Sass** reports they are preparing an interesting array of activities.

Wherever you live in Indiana, I urge you to look up your local Chapter and get involved, or volunteer at the state-wide level. We can use your help, and I promise you, you’ll rub shoulders with some very impressive and capable people!

The Field Guide to Fields:

Hidden Treasures of Meadows, Prairies, and Pastures by Bill Laws Review by Nancy Hill

Books

I picked this book up because of its name (you gotta love it) and its cover – a beautiful woodcut-style wash of green and purple field rows with distant trees and sky. As I leafed through, I discovered dozens more gorgeous illustrations. I saw that this lovely volume discusses fields over thousands of years and across the entire world. “From the rice paddies of Asia to the buttercup-filled meadows of Europe, and from the lush green paddocks of New Zealand to the wide-open plains of the American Midwest, the field is the face of the countryside,” Laws

writes in his introduction.

This visually delightful book is an enjoyable read, taking us from the first fields – the early domestication of plants and animals, through centuries of man’s use of the land for food, enterprise and beauty. He devotes individual pages to corn, coffee, wild rose, and heather, among others. He discusses livestock and wilderness, Darwin and tractors, what grows in fields and what mankind has made to grow in fields. It is an ambitious treatment that always respects the environment. “In the last 2,000 years most of the natural vegetation has been replaced by the managed vegetation of the fields. Too often it has

been mismanaged.”

Laws essentially talks about plants. The crops that feed the world, like soya beans, barley, and wheat, and also the native plants that are the foundation of it all: “...gritty little blackberry seeds have been found in the remains of Neolithic discoveries.”

The Field Guide to Fields is published by the National Geographic Society, 2010.

“From the rice paddies of Asia to...the wide-open plains of the American Midwest, the field is the face of the countryside.”

Journal Submissions

If you would like to write an article for the INPAWS Journal, contact Nancy Hill at journal@inpaws.org. Don’t consider yourself a writer? Tell us about an idea, hobby, interesting tidbit, even just a fun slant on a topic of interest, and we’ll do our editor-best to shape something publication-worthy. 🌱

Get Involved

People who are active in INPAWS learn a great deal about the natural world, practice talents, develop skills, meet interesting people, and make friends. You are invited to participate.

Some very important work takes place “behind the scenes.” We currently need help with tasks related to **membership** including publishing the yearly directory, thanking and recognizing donors, and providing lists for the Journal and other mailings.

INPAWS also needs people to join a committee to help plan the 2013 **Plant Sale**. Ross Nelson has been doing a great job for the last couple of sales, but would love to have more INPAWS members learn the ropes and share the work.

To get involved with these or any INPAWS activities, use the contact information on page 10 to get in touch with the team leader. 🌱



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“On the margin of the field” is one of many beautiful illustrations from *The Field Guide to Fields* by Bill Laws.

A Book to Cherish

Shrubs and Woody Vines of Indiana and the Midwest by Sally & Harmon Weeks

Review by Barbara Plampin

Endorsed by Mike Homoya as a “treasure trove of information,” this is a nearly perfect guide to, as the book is subtitled, the “identification, wildlife values, and landscaping use” of our native and non-native shrubs and woody vines.

The Weekses, faculty members at Purdue, one retired and one still teaching, define a shrub as “a woody plant with multiple stems from a common base that grows no taller than 20 feet or so.” They furnish an enormous amount of information, and have gone to extraordinary lengths to obtain it. Over 20 years, they have raised many of the shrubs discussed to provide information from a wildlife rather than a horticultural viewpoint. Treatment includes discussion of nesting and protective cover for birds and animals. When Sally found willows perplexing, she convened a two day conference and got Dr. George Argus, internationally noted salicologist, to lead it. (He reviewed the Weeks’s text on willows.)

This book makes identification as easy as it gets. The authors combine original keys and easy-to-use classifications in the table of contents with abundant gorgeous color photographs. Whether climbing a cliff in Tennessee to photograph big-leaf snowbell (*Styrax grandifolius*) or walking the north shore of Lake Michigan for heart-leaved willow (*Salix cordata*), Sally took all the pictures.

The back cover explains how the book works: “Scientific (Latin) and common names are given for each species as well as Similar Species Distinctions boxes that give easy-to-find comparisons and important keys to aid in identification. Information on size, form, and habitat of each species is complimented by practical synopses of both wildlife uses and landscaping value....”

“Each species has multiple color photographs illustrating important features such as leaves, leaf scars, buds, flowers, fruit and bark and are supported by written descriptions of

these features.” They include pictures of specimen plants, even pith (the inside stem tissue that stores and transports nutrients). Now I know why cross-vine (*Bignonia capreolata*) is so named. Its pith is cross-shaped.

“Range maps have been provided as a general guide to the distribution of the many species described.” You can even find out whether the woody in question is known from your own county. Some entries include propagation tips. I learned why the Indiana Dunes National Lakeshore’s attempt to restore a patch of state threatened, lemon-flowered false heather (*Hudsonia tomentosa*) failed. Instead of transplanting shrubs, we should have taken cuttings and rooted them as recommended here.

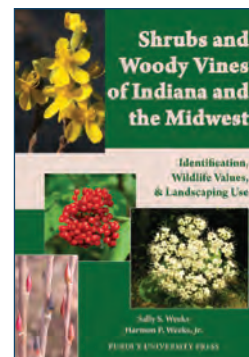
Sections devoted to whole genera mean I’m finally going to learn all the grapes, dogwoods, and viburnums. I’ve already learned to recognize a non-flowering black raspberry: it’s the only *Rubus* whose new canes are bright red (after rubbing off the glaucous bloom).

Because *Shrubs* is only one volume, it can’t discuss everything, e.g., all the willows, but we’re told what’s missing and where to find more information. Fortunately, the Weekses have been proven wrong when they state that fly honeysuckle (*Lonicera canadensis*) is Indiana state extirpated. Sally recently saw the shrub, found by **Scott Namestnik**, in damp woods also inhabited by jumping mice (*Zapus hudsonius*).

A useful list of Midwest native plant nurseries is provided in the back, as is a list of non-natives. Some readers might have liked essays on these as well.

Forgo a few lunches out and buy the book. Where else appear such descriptions as “an inflated pair of shorts” for a partridge berry (*Mitchella repens*) and “round Band-Aids” for fruits of wafer ash (*Ptelea trifoliata*), or an anecdote about a younger brother, who, when sent to find willow flowers saw only shrubs bearing “large, caterpillar-like things”?

Shrubs and Woody Vines of Indiana and the Midwest is published by Purdue University Press, 2012.



“This book makes identification as easy as it gets” according to reviewer Barbara Plampin.



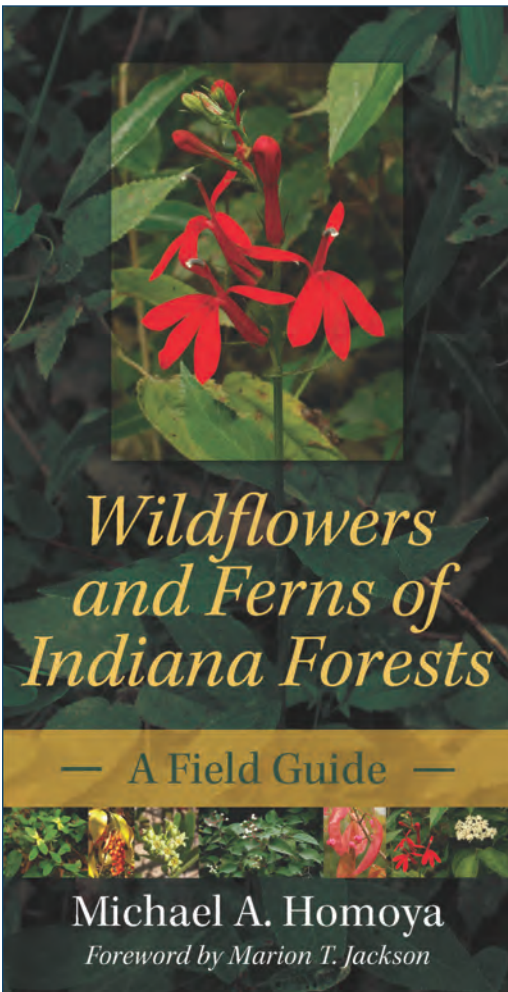
Barbara Plampin is a Life Director of the Shirley Heinze Land Trust and a field botanist. She monitors rare plants, often for the Indiana Department of Natural Resources. She holds a Ph.D. in English and lives in the Indiana Dunes.



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Wildflowers and Ferns of Indiana Forests: A Field Guide by Mike Homoya

Review by Nancy Hill

It's here! Mike Homoya's much anticipated book on the wildflowers and ferns (and trees, shrubs, grasses and sedges) of Indiana's woodland. Mike previewed his book in the Winter 2010-11 issue of the Journal, which can be found online at inpaws.org.

My new copy is already slightly dirty, with many pages turned down, as sure a sign of excellence as a dinner plate licked clean. The photos are superb and make identification easy. The organization, by color and bloom time also helps. This

"This essential field guide is just like Mike – packed with information yet down to earth."

essential field guide is just like Mike – packed with information yet down to earth. You can use it to quickly identify one of nearly 300 species, or you can enjoy a leisurely read and learn about Indiana's natural regions or its major forest types, like wet floodplain, dry upland, mesic flatwoods, etc., and what plants grow in each.

"I strove to make the guide as user-friendly as possible," Mike said, and he succeeds. But if you want, you can use this guide as a mini-classroom. He gives us detail on every plant, including terms and diagrams that are perfect "for those aiming for botanical literacy."

Kudos to Mike Homoya for giving us another volume that demands a space on the bookshelf of every native plant enthusiast.

Wildflowers and Ferns of Indiana Forests is published by Indiana University Press, 2012, with a forward by Marion T. Jackson. It is part of Indiana Natural Science, edited by Gillian Harris.
