

Host plant

spotlight

inpaws journal

Indiana Native Plant and Wildflower Society

Winter 2016-17

New England asters: stars on the land

By Holly Faust

Asters have long been described as "stars" and our native New England asters (*Symphyotrichum novae-angliae*, formerly *Aster novae-angliae*) can make us starry-eyed each fall with their large purple rays surrounding yellow disc florets.

New England aster is a critical late-season nectar source for native pollinators, especially for monarch butterflies (*Danaus plexippus*)



Late in the year, monarch butterflies and other winged pollinators find crucial nectar in New England asters.

migrating south to Mexico and for pre-hibernation native bumble bee queens (*Bombus* species) that need to survive the winter to pollinate the next year's crops and wildflowers. The flowers also attract other butterflies, longtongued bees, bee flies, bumble bees, large leaf-cutting bees, miner bees and skippers.

These showy asters are host plants for butterflies, including pearl crescent (*Phyciodes theros*) and checkerspots (*Chlosyne* and *Euphydryas* spp.), and at least 22 species of moths. Adults lay eggs on the plants, and the hatching caterpillars then feed on the foliage.

The name 'Symphyotrichum' derives from symphysis, meaning junction, and 'trichus,'

meaning hair and referring to the hairy stems. *Novae-angliae* means "of New England," where it was first discovered.

According to Kay Yatskievych, author of Field Guide to Indiana Wildflowers (IU Press, 2000), "Symphyotrichum novae-angliae (L.) G. L. Nesom' is the name that will be used in the Indiana Vascular Plants Catalogue (IVPC). It was the name used in Flora of North America (Oxford University Press, 2006, Volume 20) and is [now] pretty widely accepted. It is based on Nesom's research indicating that the genus

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Aster should be split into two genera. The North American natives go into the *Symphyotrichum* part and the Eurasian ones stay in *Aster*. So all of Indiana's species that were previously *Aster* are now *Symphyotrichum*."

As botanist Guy Nesom wrote in "Name Changes in Aster" on *guynesom.com*, 2010, "It's clear now that the evolution of Eurasian asters occurred independently of the American species." The *Symphyotrichum* name was first proposed for American asters in 1832 and was therefore given primacy when the taxonomic split became inevitable.

New England aster is also known as Michaelmas daisy because it blooms around St. Michaelmas Day, September 29. It is one of over 600 species of asters in the world.

New England aster is a perennial that grows three to six feet tall in moist prairies, meadows, thickets, valleys and stream banks.

Asters – continued on page 3

Growing up in a tunnel valley

By Kimberly Miser

Tom and Jane Dustin Nature Preserve in northwest Allen County is a unique place. Cedar Creek, the largest tributary of the St. Joseph River, and one of a few designated Indiana Scenic Rivers, borders the southern edge of this preserve owned by ACRES Land Trust. For six miles, the creek descends into an impressive "tunnel valley." part

Dr. Larry Yoder demonstrated the origin stories of the Wabash Moraine and Cedar Creek valley in miniature with water and gravel.

of which is within the preserve's borders. When Northeast Chapter (NEINPAWS) board members were scouting locations for their first annual meeting, the decision was easy.

Keynote speaker Larry Yoder, PhD. associate professor emeritus of Goshen College, explained the "perfect storm" of glacial forces that shaped the valley. When it comes to Cedar Creek, Yoder, a biologist and agroecologist, knows a thing or two. He grew up across the dirt lane from what would later become Dustin Nature Preserve.

On a sunny October afternoon, about 30 attendees gathered outside

a refurbished early 20th-century red barn on the Dustin property. Yoder came prepared to entertain and teach. Using large pressed-foam models, Yoder employed volunteers, dirt, gravel and water to demonstrate the various complexities of large-scale glacial movement and its resulting land forms. Amidst his cries of "More water! More gravel!" the origin stories of the Wabash Moraine and the Cedar Creek tunnel valley unfolded in miniature.

To get up close and personal with the real thing, Yoder took the group on a hike. Eighty feet below, Cedar Creek courses from its point of origin near Corunna, IN, to the Maumee River and Lake Erie, by way of the St. Joseph River. Just west of Dustin Nature Preserve, the creek makes an abrupt right turn, changing course from a southeast flow to a southwest flow. After the glacier that covered the area receded, erosion deepened the valley floor to a point where the lower half of the stream actually reversed direction. This unusual feature makes this area distinctive, not just in Allen County but in the nation.

Yoder used charts and diagrams to illustrate the glacial features of the Wabash Moraine. "This area of Indiana has everything," he said. "Moraines, kettle lakes, kames and eskers." He painted a vivid picture of what the ice looked like in northeast Indiana during the Wisconsin Ice Age some 20,000 years ago.

As the group gathered around him in the woods, Yoder spun a story of a mile-thick glacier, pointing over the group's shoulders. "The glacier is right behind you," he said. Remarkably, all heads turned to see the massive formation — that had, of course, melted thousands of years ago. Enjoying the moment, he quipped, "Well. It's not there anymore."

Deeper into the preserve, the group hiked to the edge of a steep slope along the tunnel's rim, one of many such drops in the valley. The creek's erosive contact creates areas of constant disturbance at the base of these slopes. There are few trees on the eroded inclines, so these unique micro-habitats surrounded by second-growth forest get plenty of sun. Such places are home to plants that normally would not be found in wooded areas, such as Indian paintbrush (*Castilleja coccinea*).

Yoder recalled that in his childhood this particular slope was called "the slip bank" and used to be bare. "The slope is unstable, but it's also in the process of succession," he said. Then he added, "Autumn olive's getting a hold down there." The slope is too steep for anyone to do anything about it.

Prior to European settlement, soils and topography strongly influenced native vegetation. Oak and hickory dominated the ridges; beech and sugar maple occupied the sandy outwash below.

Tunnel Valley - continued at right

Michigan Botanist changes name, range

By Michael Huft

The Michigan Botanist, the peer-reviewed quarterly journal of the Michigan Botanical Club has been renamed *The Great Lakes Botanist* as of January 1, in belated recognition of the fact that the journal, now in its 55th year, has always published research articles on the plants of all the Great Lakes states.

In addition, the journal will begin accepting papers on the botany of North America in general, while maintaining the Great Lakes region as an area of special focus. The Great Lakes region is defined as the entirety of the states and provinces bordering any of the Great Lakes, that is, Michigan, Wisconsin, Minnesota, Illinois, Indiana, Ohio, Pennsylvania, New York and Ontario.

The journal will continue to publish articles by Hoosier authors about Indiana plants. Articles may be submitted to the editor at *mhuft@att.net*. Submission guidelines may be found at *http://quod.lib.umich.edu/m/mbot/submit*.

The journal publishes papers on all aspects of the natural history of plants of North America north of Mexico, including systematics, floristics, ecology, conservation, botanical history, economic botany and ethnobotany, restoration and other areas of organismal botany. Plant groups include vascular plants, bryophytes, fungi and algae.

Michael Huft, editor of The Great Lakes Botanist, is a member of INPAWS North Chapter.

Tunnel Valley – from left

Curiously, eastern red cedar (*Juniperus virginiana*) dominates the area today. Although not common in the deciduous woodlands of northeast Indiana, the species can occur naturally if given the chance. That chance came in the form of European settlers clear-cutting right up to the valley's margin for farming. Along the tunnel valley's ridge, eastern red cedar is now common on roadsides and idle farmland.

Yoder recalled a time when he was photographing a modern-day Alaskan glacier and a stranger asked, "Isn't this the most impressive thing you've ever seen?" Yoder hesitantly replied, "Well, I don't know. You should see what we have in Indiana."

Kim Miser is communications chairperson of INPAWS Northeast Chapter.

Asters – from page 1

It is a robust upright plant, flowering profusely until first frost with blooms one and one-half inches in diameter. The fringe-like ray flowers range from deep purple to rose pink to white (rare) around central yellow disc florets. The alternate leaves are hairy, lance-shaped and clasping on the stems. The seeds are spread by wind.

The seeds and leaves of this species are eaten by wild turkey, deer and rabbits. The abundant glandular hairs on the stems and

leaves make the plant less palatable to rabbit and deer and may protect the plant from destructive insect plant suckers. Although New England aster is not their first choice. rabbits have been known to eat the whole plant when other food is not available.



The species is native in most of the continental US east of the Rockies. In Indiana, it is found from July to October in most counties in the northern two-thirds and a few counties in the southern third. In 1710, it was introduced into Europe, where it is now naturalized.

If you now have a greater appreciation for New England aster, perhaps you will consider planting it in your own yard or seeking it out in the wild. You will be well rewarded when you see these purple beauties in the fall, after most other wildflowers have come and gone.

Holly Faust is an interpreter with Hamilton County Parks at Cool Creek Park and a member of INPAWS Central Chapter.

A Place Called Turkey Run

Reviewed by Lee A. Casebere

A Place Called Turkey Run: A Celebration of Indiana's Second State Park in Photographs and Words by Daniel P. Shepardson, 2016, Purdue University Press, West Lafayette, IN

Book Reviews

A nicely-timed state park centennial tribute to Turkey Run was recently published by Purdue University Press, celebrating this truly iconic Indiana state park. The tribute is a book entitled A Place Called Turkey Run: A Celebration of Indiana's Second State Park in Photographs and Words by Daniel P. Shepardson, who is both

Turkey Run should, this one delves primarily into the scenic sandstone cliffs and gorges that are the greatest aesthetic attraction of the park.

The book is organized into six chapters: "Sandstone"; Bluffs & Canyons"; "Flowing Water"; "Snow & Ice"; "Tall Trees"; "Flowers, Ferns &

Fungi." The first four are largely about rock, and this is where the author's expertise comes through best. Shepardson is a professor of geoenvironmental and science education at Purdue University. He obviously has much knowledge regarding earth science and the geological forces responsible for creating the sedimentary foundations of this park and the more recent (and still occurring) erosive forces responsible for creating the canyons we admire today. His narrative is simple, understandable and nicely to the point without resorting to technical language. He uses just enough explanation to capture your understanding, then reinforces it with lots of photos to reel you in the rest of the way.

Because we have so few examples of exposed bedrock here in Indiana, perhaps that's why we cherish them so highly – the shapes and contours, the layers, the colors. Seeing the artistry in these eroded rock formations and seeing what sun, rain, fog, moss, lichens, algae, fems, snow, ice, water,

fallen leaves, trees, tree roots and certain minerals and chemicals in the rocks can do to change the appearance of each particular place, from day to day and season to season, is something that draws us back to Turkey Run again and again. We obsess over these things. And so does Daniel Shepardson. His photos are certain evidence of that. Such scenes, such colors!

Although I like this book, I do have a few complaints. Each chapter begins with an introduction followed by a general narrative, and the font style

Turkey Run - continued at right



the author and the photographer. The layout is in landscape style with the outside dimensions approximately 11 inches wide by nine inches tall, a nice size for easy viewing and handling. The 224 pages contain over 250 color photos. The abundant photos are clearly the focal point of the book.

The idea of a book that focuses on a single locality is one that I find particularly attractive. Coming from a natural area inventory background, I've always taken much interest in efforts that dig deeply into particular places. As a book about

Bean Blossom Dreams

Reviewed by Holly Faust

Bean Blossom Dreams: A City Family's Search for a Simple Country Life by Sallyann J. Murphey, 2008, Quarry Books, IU Press, Bloomington, IN

Sallyann Murphey was a successful BBC producer, her husband Greg a successful commercial photographer. They lived in an upscale "safe" neighborhood in Chicago with their two-year-old daughter Charlotte, whom they affectionately called Charley. Exhausted from working hectic 70-hour weeks, rushing to meet deadlines and flying all over the world, they rarely got to spend time with Charley. Their only solace was a 10-square-foot garden. After the 1987 stock market debacle, it became increasingly harder to make ends meet and maintain their lifestyle.

Sallyann and Greg had dreamed of retiring on a farm some day to flee the trappings of big city life. "Why wait?" Sallyann said to Greg one evening. "Why dream of ending up in the country when we could be living there today?"

Turkey Run — continued from left and font size is different between the two. For me, the font style used in the chapter introduction is the better fit, and the difference between the two detracts from the quality of the book.

As an avid amateur nature photographer, I know the difficulty of nicely photographing scenes with strong contrast between light and dark such as what one finds in deep canyons and in shaded forests with sunlight filtering through. Mr. Shepardson has done an admirable job of dealing with these challenges. Many of the photos are especially fine shots showing the colors, textures, design elements and plays of light that inspire us at Turkey Run. However, many of the photos have a soft appearance that lacks the crisp "snap" of fine detail that one expects in a book of this sort. The result is an inconsistency in the book's overall photographic quality.

As a whole, the shots of animals (birds, mammals, amphibians) are the weakest photos, and perhaps many could have been left out without any noticeable loss to the book. Hard-core plant enthusiasts will notice that the trillium identified as *Trillium sessile* in chapter six, page 170, is actually *T. recurvatum*.

Hopefully, the shortcomings mentioned here will not decrease interest in this beautiful book. Mr. Shepardson clearly loves this park, and his book is a fine tribute to Turkey Run's centennial that flaunts its best features remarkably well.

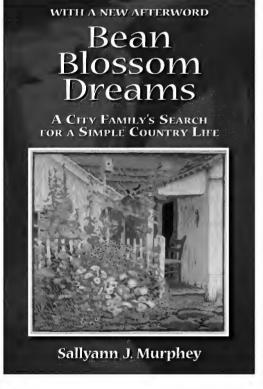
Lee Casebere is a member of INPAWS Central Chapter. He retired as assistant director of the DNR Division of Nature Preserves in 2013.

Murphey's nature memoir Bean Blossom Dreams tells of their move to Brown County, IN, and their learning experiences of living on a farm amid surrounding wild nature. They learned how to deal with the death of their daughter's pet rabbit and how to raise and doctor barnvard birds. They "learned by doing" why not to adopt a stray dog or buy a horse that does not respect fences.

I love this excerpt from her preface: "We learned a basic country lesson: when the balance is disturbed, everything suffers."

The book was originally published in 1994. In the back of my 2008

edition, the author indulges the reader with the recipes she mentioned in her journal, plus a new afterword that updates the family's adventures. As I settled down each evening with Bean Blossom Dreams and escaped to the Brown County hills with her, I found myself never wanting to leave.



Brown County group creates Native plant stewardship class

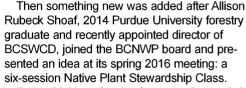
By Ruth Ann Ingraham

Last summer a Native Plant Stewardship Class was offered for the first time in Brown County. It was co-sponsored by the Brown County Soil and Water Conservation District (BCSWCD) and the Brown County Native Woodlands Project, a non-profit organization with a historic link to INPAWS.

A little background: before the Brown County Native Woodlands Project (BCNWP) there was the Brown County Public Library Ravine Project. The library project began in 2001 when INPAWS member Donna Ormiston spurred the effort to eradicate a thicket of invasive species growing rampantly in the library's forested ravine in Nashville. In 2003 INPAWS awarded a vital grant to help cover the cost of eradication of invasives there. Herbicides were applied, followed by the addition of native grasses, sedges, forbs and shrubs. Unlike a dozen years ago, library users may now stand at the large windows overlooking the ravine and enjoy the natural riparian habitat. (See INPAWS Journal, Winter 2007 and Fall 2010.) That ambitious endeavor was the springboard for what was

The Nature Conservancy's Dan Shaver and I had served on the library's steering committee. Then in 2006 our vision for the county grew exponentially after he and I met with Brown County resident Melanie Hunt and shared concerns about non-native invasive species countywide. That initial conversation led to Brown County's Native Woodlands Project which honors the county's natural heritage and encourages public and private landowners to protect that treasure.

Education and control of invasives are key components of BCNWP. Its volunteer board annually sponsors Nature Daze, an all-day free event for families. We've mapped the county roadsides, highlighting four invasive species as a baseline; sponsored numerous lectures and field days; carried out eradication of Japanese knotweed along county roads and kudzu in targeted locations; had newspaper articles published; conducted free landowner surveys to highlight both invasives and natives; tackled Japanese stiltgrass and other species in Brown County State Park; managed grant monies; and advised other counties on how they might establish a similar organization.



"I was thinking of topics for a one-day workshop we could hold to educate our community members," Allison said. "But I quickly realized it would be much more effective if we held a series of classes."

The board unanimously approved the concept, similar to DNR's Master Naturalist and Purdue's Master Gardener programs. Within a few days Allison had outlined the basics - six topics, six dates and ten presenters. The notice went out and the class quickly filled. The cost was \$30 per person or \$50 per family.

Classes ran from June through August. Here's the course outline:

Why should I care about invasive plant species? This topic included the benefits of native plants, invasive species introduction and their effect on Indiana's native landscape. Speaker - Jane Savage, member of BCNWP, INPAWS and Boone County Master Gardener

Invasive plant species ID (indoors) focusing on Indiana's most threatening species. Speaker - Dan Shaver, director of The Nature Conservancy's (TNC) Brown County Hills Project

Invasive plant species ID at Deer Run Park west of Nashville. Leaders - David Mow and Tommy Gunn of TNC and Ruth Ann Ingraham

Invasive plant control methods (indoors). Speakers - Sam Shoaf and Spencer Goehl, Eco-Logic in Bloomington

Invasive plant control methods, mechanical and chemical (outdoors) at Deer Run Park. Leaders - Dan and Jordan McGuckin, Habitat Solutions, and Tommy Gunn

Native plant alternatives for gardens and landscaping. Speaker - Ellen Jacquart, TNC

Twenty-three participants attended at least five of six sessions and passed a written take-home exam. On September 10 at Nature Daze 2016

Stewardship - continued at right



Stewardship class participants learned about Japanese stiltgrass and other invaders in Brown County State Park.

Limberlost

Bicentennial event sells out

By Terri Gorney

"The Limberlost was arrayed as the Queen of Sheba in all her glory," wrote Gene Stratton-Porter in her book *Freckles* in 1904. Her literary legacy and the natural history of the Limberlost were very much front-and-center at a sold-out "Trek and Talk" hosted by Indiana Humanities and Limberlost State Historic Site at Loblolly Marsh on October 8.

Indiana Humanities created this unique program to connect literature and the land for Indiana's Bicentennial. The program was so successful around the state that it is hoped it can be continued in 2017.

It was a perfect day for exploring the Limberlost. It began with a special tour of Gene's Limberlost cabin in Geneva conducted by retired site manager Randy Lehman. Limberlost naturalist Curt Burnette and Professor Rachel Blumenthal of Indiana University Kokomo led a hike through the Loblolly Marsh's prairie.

Loblolly Marsh was the first of the Limberlost territories to undergo restoration beginning in 1997, and that process continues. There are five wetland preserves that are part of the Limberlost territories in northern Jay County and southern Adams County, all managed by the DNR Division of Nature Preserves.

After the hike, dinner was served around a campfire at the Loblolly Pavilion. Judy Williams, a member of Friends of the Limberlost, made a special centerpiece with natural items found around her home and a special bicentennial treat for participants.

After dinner Professor Blumenthal led a good discussion of Stratton-Porter's writings and shared the poetry of some contemporary nature writers. The evening was not complete until "s'mores" were served and Adrienne Provenzano sang Burnette's poem "Loblolly Lullaby" and Gene's 1916 poem "Limberlost Invitation."

Special thanks are due to Jay County native George Hanlin, a former resident of Pennville in Jay County and head of grants for Indiana Humanities, who was present for

the event, and to Indiana bicentennial director Perry Hammock for his return visit to Limberlost.

Terri Gorney is vice-president of Friends of the Limberlost, volunteers with DNR at Limberlost State Historic Site and is active in INPAWS Northeast Chapter.



Stewardship - from left

they were certified as Native Plant Stewards and awarded free memberships in the BCNWP.

Allison was understandably pleased: "I never expected to have 23 people complete the course! It really shows the interest and need for this type of training in our state."

To maintain certification each steward is expected to complete a minimum of 10 hours of volunteer work annually that directly relates to invasive species control or education.

BCNWP is particularly proud of this program. Allison and I will gladly share information about Brown County's plunge into its first ever, informative hands-on course about our native and non-native plant species. To learn more about the Native Woodlands Project, peruse www.bcnwp.org.

Ruth Ann Ingraham is an INPAWS co-founder and board member, as well as co-founder and chair of the BCNWP.

Loblolly Marsh in Geneva was the first of the Limberlost territories to undergo restoration beginning in 1997.

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Mission

To promote the appreciation, preservation, conservation, utilization and scientific study of the flora native to Indiana.

To educate the public about the value, beauty, diversity and environmental importance of indigenous vegetation.

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Submissions

All are invited to submit photos, 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 high resolution photos (300 ppi) via e-mail to journal@ inpaws.org. Submission deadlines for specific issues are:

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Membership

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

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Message from the President

By Michael Homoya

Greetings, INPAWS members! In case you missed the annual conference – which I hope



you didn't, as it was most excellent (See page 13) – I was elected your president. While I appreciate the opportunity to serve, I am challenged by the "large shoes" that I must fill. Jeff Pitts

has been a top-shelf president and, along with the skillful work of council members and others, has done great things on our behalf and for native plants. Please be sure to thank them at every opportunity.

For those who don't know me, I am simply a person who loves plants. I was smitten by native plants while a teenager, when my mother and I sought out and found a population of wild azaleas growing near our hometown of Carterville, IL. We couldn't imagine such beautiful plants growing in the wilds of southern Illinois, but they were! That experience propelled my interest in natural areas and native flora and led to my current profession. For over 35 years I've had the privilege of being a field botanist and plant ecologist with the Indiana DNR Division of Nature Preserves, working with others in the discovery, inventory and protection of Indiana's most significant natural areas.

My wife Barbara often refers to me as the "plant advocate." We're all advocates for native plants in one way or another, professionally or otherwise. Whatever your angle, it's important to our mission and very much appreciated. I look forward to getting to know as many of you as possible and learning about your particular interest in our wonderful and fascinating native flora.

Unsung heroes

By Wendy Ford

INPAWS could not pursue its mission without the time and talent of many dedicated volunteers working behind the scenes. Here are two of those unsung heroes.

Tom Hohman

Retired from the Department of Natural Resources, civil engineer Tom Hohman has worn many hats for INPAWS through the years, first as head of the spring plant sale and auction, then as Central Chapter president, as INPAWS president, as annual conference chair (three years!) and as a member of the INPAWS board of directors. No matter what obstacles arise, Tom gets the job done. His professional fellows in the Association of Conservation Engineers recently recognized his talents with a lifetime achievement award, an eagle trophy that he's mighty proud of. Tom and wife Kathy, who helps with INPAWS' Native Plant Wizard program, have hosted numerous member gettogethers at their home in Plainfield, and Tom readily shares his love of the beer brewer's art with any and all. He has a busy life outside of INPAWS, including as a founder of the Indiana Parks Alliance.

Angela Sturdevant

Working diligently alongside her professional role at The Nature Conservancy, Angela Sturdevant has been managing the Letha's Youth Outdoors Fund grant program for four years. She's responsible for receiving grant requests from schools and youth groups, getting them evaluated and prioritized, and handling the disbursement of funds for field trips and projects that get kids into nature. This is one of those jobs most INPAWS members don't even realize exist, but it helps INPAWS make an impact on the next generation we depend on to nurture the land and our native plants after we are gone. Angela knows a lot about wetlands, watershed management, conservation and ecology and is a certified firefighter.

Behind the scenes





Tom Hohman (above) and Angela Sturdevant are among the heroes who keep INPAWS moving forward.

INPAWS news from around the state

INPAWS in action



North Chapter By Cookie Ferguson

North Chapter members enjoyed a variety of hiking experiences in 2016. Our outdoor adventures were coordinated by Nathanael Pilla, project coordinator for Save the Dunes, who put together a schedule of outdoor activities from May to October

Members visited the Moraine Nature Preserve in Valparaiso in mid-May. This field trip was led by Derek Nimitz of DNR and was a joint program with DNR. This hike showcased the rolling landscape of the 465-acre wooded system created through the deposit of soil from melting glaciers. Violets (*Viola* species), trillium (*Trillium* spp.), and bishop's cap (*Mitella diphylla*) peppered the gorges. The highlight for many was a large patch of showy orchis (*Galearis spectabilis*) which made an unexpected appearance.

In late May a trip was made to Bendix Woods County Park, St. Joseph County, where sedges (*Carex* spp.) were the target of the day. More than 30 people were split into two groups, led by Scott Namestnik, senior botanist for Orbis Environmental Consulting, and Dr. Deborah Marr, associate professor of biology at Indiana University South Bend. Giant beech trees loomed overhead as members enjoyed the vast biodiversity and spring flora.

In June the group was invited to the Dunes Succession Trail at Indiana Dunes National Lakeshore (IDNL) in Gary. The hike was led by Dr. Young Choi, professor of biology at Purdue University Northwest. The group explored theories of dune succession as they walked from beach, through the pannes (calcareous intradunal ponds), up the dunes and down again. A definite highlight was the sighting of the federally threatened Pitcher's thistle (*Cirsium pitchen*) in full bloom.

A July hike took place at Cowles Mesic Prairie at IDNL at Porter. Nathanael Pilla and Daniel Mason, a National Park Service botanist, shared leader responsibilities. Dan gave the historical account of this prairie, newly reconstructed in part by the resurgence of the seed bank. Nathanael highlighted flora throughout the hike, including colic root (*Aletris farinosa*), four different types of lobelia (*Lobelia* spp.), and some wonderful sedges.

Our field trips in August included a hike at Howe's Prairie at IDNL at Porter. Led by Noel Pavlovic, the hike was greatly enjoyed as members toured the riches of this prairie area. On August 13 the group met at Chamberlain Lake Nature Preserve in St. Joseph County. This was also a joint field trip with DNR and was led by DNR's Roger Hedge. Chamberlain Lake is a kettle lake that is a remnant from glacial melting. This place, labelled "unique to the planet," exhibited a spectacular plant display.

In September a field trip took us to Miller Woods in Porter County for the special collection of fungi found there. Dr. Peter Avis, mycologist with Indiana University Northwest, led the hike into the oak savanna. Dr. Avis was excited to point out Indian pipe (*Monotropa uniflora*) as well as the abundant fungi. Fringed gentian (*Gentianopsis crinita*) and soapwort gentian (*Gentiana saponaria*) were spotted growing next to each other.

Our last hike of the season was Oct. 15 at DuPont Natural Area in East Chicago, IN, led by Paul Labus of The Nature Conservancy. Our first "Third Sunday" meeting was the next day at Barker Woods in Michigan City. Nathanael Pilla led a hike around the 22-acre property, after which Dr. Victor Riemenschneider, biology professor emeritus at Indiana University South Bend, discussed changes he has observed at Barker Woods since it became surrounded by urban sprawl.

Third Sunday meetings will continue at various sites until spring hikes begin in April.

Cookie Ferguson is vice president of INPAWS North Chapter.

Southwest Chapter

Members of Southwest Chapter participated in their annual seed swap on Nov. 19 at Wesselman Woods Nature Center in Evansville.

Prior to the swap, they enjoyed a presentation by Judy Schneider Kron on starting native plants from seed. Kron, a Master Gardener and owner of a local greenhouse, has been experimenting with seeds from native plants.

Members brought both seeds and potted native plants to trade.

2016 small grants benefit four counties

By Patricia Happel Cornwell

INPAWS 2016 small grants ranging from \$528 to \$1,000 are benefiting communities in four counties in the northern half of the state.

Friends of Potato Creek State Park in North Liberty, St. Joseph County, were awarded \$1,000 for a "Floristic Trail Checklist" project. The checklist of native and non-native plants to be found along the park's trails is due to be available online and at the park's nature center this year. In future, the list may evolve into a guide with photos.

In Allen County, ACRES Land Trust received \$855 for Japanese stiltgrass control in the Cedar Creek corridor and Southwest Conservation Club in Ft. Wayne received \$992 for "revitalizing prairie with native plants."

As of the third quarter, ACRES staff, interns and volunteers had worked 132 hours and covered 30 acres in their efforts to eradicate stiltgrass. County highway crews have mowed areas and landowners have cooperated by spraying or mowing the invasive grass on their properties.

The Conservation Club is working to return part of its 37-acre property within Ft. Wayne to natural prairie and, by doing so, to educate members and the urban public about the value of native plants. The INPAWS grant will help the group complete what is a five-year project.

The Master Gardener Association of Tippecanoe County is using an award of \$528 for a "Pathways for Pollinators" project in Lafayette. At the Extension Service office "display and idea gardens," the association created raised beds of pollinator-friendly native plants along the garden paths with information signs identifying plant species.

Marquette Park Playground Committee of Miller, near Gary, in Lake County received \$700 for their project titled "Native Flora Flourishing @ Marquette Park." This municipal park is surrounded by the Indiana Dunes National Lakeshore. Recent renovation of the park created problems with erosion of sand and soil, and native plants will be used to stabilize the area, attract pollinators and educate visitors to the park.

West Central Chapter

By Greg Shaner

In early 2016, the West Central Chapter's RIP (Remove Invasive Plants) Squad contributed over 125 hours of volunteer work at three West Lafayette parks and nature areas and two Tippecanoe County parks. The group, which sometimes collaborates with the Sycamore Audubon Society, also coordinated a work day at one county park with NICHES Land Trust stewards. Volunteers focused on shrubby invasives in winter, garlic mustard (*Alliaria petiolata*) in spring and also worked on removing wintercreeper (*Euonymus fortunei*), averaging five people per session in West Lafayette and three to eight in the Tippecanoe parks.

Members enjoyed the wildflowers during the chapter's spring garlic mustard pulls, and during one such session Margereta Fong discovered an orchid in a section of Prophet's Rock Woods, a Tippecanoe County park. DNR biologist Mike Homoya confirmed from a photo that it was spring coral root (*Corallorhiza wisteriana*), the first sighting of this species in Tippecanoe County.

Each spring the chapter offers native plants for sale at the Tippecanoe County Garden Expo, organized by the Tippecanoe Master Gardener Association. This past spring the chapter raised \$374.

In August, Amanda Smith of Hamilton County Parks presented a talk on historical plants and their uses, and the chapter joined the first Indiana Intrastate Stewardship program for Japanese stiltgrass (*Microstegium vimineum*) removal methods.

In September Mindy Appold with Purdue University's Department of Horticulture and Landscape Architecture, discussed landscape design to attract pollinators and gave a presentation on a new pollinator garden at Purdue.

From October to December, West Central's invasives removal efforts focused on amur honey-suckle (*Lonicera maackii*) and winged burning bush (*Euonymus alatus*), including four "Pulling for Bats" activities during "Bat Week" Oct. 25-31.

West Central Chapter meets on fourth Mondays at the Lilly Nature Center at Celery Bog Nature Area in West Lafayette.

Greg Shaner is president of INPAWS West Central Chapter.



While removing invasive plants, INPAWS West Central volunteers discovered an orchid at Prophet's Rock Woods. It was the first confirmed sighting of spring coral root (Corallorhiza wisteriana) in Tippecanoe County.

Binos a boon for butterfly hike

By Amy Perry

On a late August morning under cloudy skies after a rain, 20 people gathered at Southeastway Park in Indianapolis to learn more about identifying butterflies. Our guide Kirk Roth explained that a sunny day would attract more butterflies than a cloudy one. However, as if to belie his pessimism, immediately someone pointed out a red-spotted purple (*Limenitis arthemis*) perched in the middle of the sidewalk in front of the nature center. What a lucky introduction to a butterfly hike!

The red-spotted purple is very similar to the poisonous pipevine swallowtail (Battus philenor). This fakery protects it from predators who have tasted the yucky pipevine swallowtail and learned to associate that appearance with a very bad gustatory experience. The spicebush swallowtail (Papilio troilus) uses the same means to protect itself from would-be predators. This butterfly seemed to be drinking from a wet spot on the cement. (Butterflies have a long proboscis that acts like a straw: everything they take in is liquid.) It was feebly waving its ragged wings and struggling to move around. Many things happen during a butterfly's lifetime that wear away the wings, which consist of a thin transparent membrane covered by scales. This insect's wings were ragged either because many scales had been rubbed off as it brushed against plants during flight or because tiny portions of the edges had been bitten off or otherwise destroyed. This butterfly probably emerged from its chrysalis many weeks ago.

We didn't need to get very close to the butterfly to see its wing edges because many of us had binoculars, recommended by the pre-hike publicity. Kirk explained that butterflying with binoculars has become popular. Whereas 25 years ago he as an entomologist would have used a net, today people use binoculars for close-up viewing so butterflies can be left in the wild. There's even a book called *Butterflies through Binoculars* (Jeffrey Glassberg, East edition, Oxford University Press, 1999). This calls to mind the switch birdwatchers made from collecting birds by shooting and then examining them, like John James Audubon, to viewing them in the field.We saw butterflies in two natural areas:

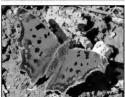
a garden and a pond's edge. In the garden a common buckeye (*Junonia coenia*) with big eye marks on its wings was on a tall plant tentatively identified as tall coreopsis (*Coreopsis tripteris*). A pearl crescent (*Phyciodes tharos*) on a coneflower (*Echinacea purpurea*) was spreading its wings to warm up. Pearl crescents love grassy areas and clover and are likely to be found in your yard. Some people find it difficult to say just where the crescent is on a pearl crescent, because there is a crescent pattern below the hindwing, and often different crescent-shaped marks above.

A hackberry emperor (Asterocampa celtis) provided an example of a butterfly that likes sap rather than nectar. It was on a sunflower (Helianthus species). A milkweed tussock moth caterpillar (Euchaetias egle) that we saw was so fuzzy I wanted to stroke it. (Naturalist Amanda Smith likens this caterpillar to a Lhasa Apso dog.) Near the pond's edge a cabbage white (Pieris rapae) served as an example of an introduced butterfly. This species came over from Europe as an egg or larva on cabbages and other crops. If you see a small white butterfly in your yard, there's a 95 percent chance it is a cabbage white. However, if you are in the woods and there is toothwort (Cardamine spp.) around, it could be a West Virginia white (P. virginiensis). If it has no black spots, it's probably a West Virginia white.

We admired the tiny yellow stamens dangling from brown-striped Indian grass (Sorghastrum nutans), where we saw a tiny female eastern tailed-blue (Cupido comyntas). The highlight of our hike was a monarch drying its wings, having just emerged from a chrysalis. It was dangling from a sedge only two feet above the water! Monarchs (Danaus plexippus) lay their eggs on milkweed and of course the caterpillars eat the milkweed, but when it's time to turn into a butterfly they crawl to a different plant species. Kirk observed that if this monarch had hatched the previous night, the rain probably would have forced it down to its demise. Some monarch eggs overwinter — in fact, monarchs hatch at various times during the year. This strategy ensures that in case of a storm or other disaster. not all the monarchs are destroyed. We learned

Butterfly hike – continued at right









Among butterflies spotted at Southeastway Park in Indianapolis were (from top) the eastern tailed-blue, comma, buckeye and spicebush swallowtail.

Leaders honored at conference

Two INPAWS members were recognized at the November 5 annual conference for extraordinary service to the organization. Founding member Ruth Ann Ingraham, who has served in various offices and been the group's historian for 23 years, was given an

The 2017 conference will be October 28 at Bloomington Convention Center.

award, a lifetime INPAWS membership and a standing ovation. Outgoing president Jeff Pitts received an award acknowledging his leadership during the transition to a board of directors structure, and for serving as president for three years.

Conference sponsors

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Wild Birds Unlimited

A new INPAWS president was elected during the business meeting that launched the conference at 502 East Event Center in Carmel. Mike Homoya, a botanist with the DNR Division of Nature Preserves since 1982 and a longtime INPAWS member, will serve a two-year term.

Elected to continue as at-large directors on the board were Wendy Ford, Tom Hohman and Ruth Ann Ingraham.

The one-day conference was attended by

330 wild plant enthusiasts who heard speakers on the theme "Protecting What We Have, Restoring What We've Lost." There were several non-profit exhibitors, displays by students of Franklin College and Purdue University, and more financial sponsors than ever (see box).

Butterfly hike - from page 12

other identification tips, too. Skippers (family Hesperiidae) are moth-like and lay their eggs on grasses. If you see the tiniest butterfly possible and it is orange and black, it is most likely a least skipper (*Ancyloxypha numitor*).

A general rule to find butterflies is to look at purple flowers, red or white clover (*Trifolium* spp.) and orange butterfly weed (*Asclepias tuberosa*). Butterflies aren't attracted as often to yellow flowers.

Commas and question marks (*Polygonia* spp.) and mourning cloaks (*Nymphalis antiopa*) hibernate in their adult form over the winter. This is why you often see these three species early in the spring. Commas and question marks look similar, but the comma has three spots horizontally along the midwing and the question mark has four spots on the midwing, the outermost spot being more like a vertical line.

We enjoyed lively conversation as we swapped stories and traded tips, but a rainstorm put an end to our good time. I wonder what happened to the monarch.

Amy Perry is a member of INPAWS Central Chapter.



Ruth Ann Ingraham received an award and a standing ovation in appreciation of her 23 years of service during INPAWS' 2016 annual conference.

Thinking Strategically, Part II INPAWS as biodiversity

By Wendy Ford

In the fall issue of *INPAWS Journal*, we considered how INPAWS could be more effective through visionary leadership. Now let's look at the messages we convey to the public.

Among those who know us, INPAWS is trusted for our members' expertise and depth of knowledge about native and invasive plants. But our visibility with the general public is questionable. We aspire to be more widely respected and admired as a leading conservation group — a household name like Audubon Society and Sierra Club. To establish our niche vis-a-vis these other groups, we need to clarify our focus.

In our February, 2016, leadership retreat we determined that our niche could be "champions of biodiversity," a goal captured in the next priority of our Strategic Plan 2016-2020. Thoughts expressed in the retreat and your responses to our membership survey are showing us how to get where we want to go.

Priority II: Establish INPAWS as a highly visible champion for native plants and biodiversity.

How Are We Doing?

Our existing communications vehicles are solid but conventional. INPAWS has a web site chock-full of information, but only for those people actively looking for it. We have attractive displays for outreach tables and several popular brochures, but more could be done to lend pizzazz to our presence at outreach events. And we have an outstanding quarterly journal that is received by members and partner organizations. Our public outreach should make people want to know more and drive them toward our existing sources of information.

- We could have a column in the garden section of major newspapers.
- Our members could all perfect brief "elevator speeches" for talking with friends and neighbors, acting as ambassadors for INPAWS.
- We could reward those working to increase biodiversity, planning highly visible awards for native plant-friendly housing developments, corporate landscapes and school gardens.
- With INPAWS' 25th anniversary coming up in 2018, we have an opportunity to make a media

splash by staging a PR event.

- We especially could be making more effective use of all forms of technology available.
- We could do YouTube "workshops" for landscapers, homeowners and teachers on such topics as butterfly gardens, rain gardens and pollinator support.
- We could tweet about upcoming chapter events that include educational programs.
- We could make video testimonials about why our members value native plants or why they remain INPAWS members.
- Our Facebook Public Group is wildly successful, as judged by its 6000+ followers, and we wish we could convert some of those to dues-paying members. The "Grow Native" program should help bring interested plant buyers into the membership fold.

All this suggests a much more intentional program of public relations. We aspire to be a "media machine" — defining key terms, promoting native plants, where to buy them, reasons to use them, and reasons to use and support INPAWS as the go-to reference. To the extent that our message is disseminated broadly and people are "getting it," INPAWS will serve as a model for other native plant societies across the US.

Perfecting Our Messages

Our aims are pretty ambitious. We want "native," "non-native," and "invasive" to be household words. We want homeowners to recognize non-native invasives in their landscapes. We want everyone to understand why biodiversity is so important.

These are not easy concepts to explain, nor are people easily motivated to take the time to understand them. Clearly, we need to set our minds to crafting compelling messages. The key may be to show the relevance of these concepts to other things people value, such as birds and butterflies in their backyards or a connection to their Hoosier heritage.

INPAWS can ride the current waves of public interest in the plight of the monarch butterfly, and polllinators in general, to get our message out.

Considering the broad range of audiences that need to absorb the message, it will be important to prioritize our efforts to keep them manageable and to tailor our messages to specific groups.





The monarch butterfly (top) and pipevine swallowtail are among thousands of species championed by INPAWS.

champion

Here are just some of the groups we need to reach: builders and developers; landscape architects and designers; landscape installers and maintainers; plant buyers and sellers; major corporations; retired adults; young professionals; urban farmers; gardeners; homeowners; schools; colleges and universities; families; government agencies.

The Way Forward

In the first quarter of 2017, your INPAWS board of directors, with insights from the state program team and chapter leaders on the INPAWS Council, will bring forward an implementation plan to accomplish **three strategic goals:**

- 1. Develop an effective messaging strategy.
- Aim to make "native," "non-native," "invasive" and "biodiversity" household words.
- Prioritize target audiences; develop compelling messages and programs to reach them.
- Determine where concerns overlap or contrast with other environmental organizations to find INPAWS' proper niche.
- 2. Explore new vehicles and technologies to educate, inspire and motivate target audiences.
- Consider what content to develop for talks, workshops, classes, videos.
- · Learn how to make full use of social media.
- Consider a "Native Plant Habitat" certification program for homeowners.
- 3. Implement a comprehensive media campaign to convey INPAWS' messages.
- Update the INPAWS mailing list to be more comprehensive in terms of media targets and environmental partners.
- Design a media campaign with manageable phases and costs, using all suitable technologies.
- Launch a first-round media push to educate the public.
- Launch a second-round media push highlighting INPAWS' 25th year in 2018.

Ambitious? Yes. But doable with the energy and enthusiasm of INPAWS members like you. Does one of these tasks call out to you to get involved? Please let us know at webmaster@inpaws.org.

In the next issue, we'll explore our third strategic priority, nurturing the next generation of ambassadors for biodiversity.

Wendy Ford is INPAWS webmaster and communications guru.

Winter - from back page

Native grasses can maintain visual structure long after the flowers and foliage of other plants have come and gone. Species such as Indian grass (Sorghastrum nutans), prairie cord grass (Spartina pectinata), poverty oats grass (Danthonia spicata) and eared brome (Bromus latiglumis) hold their own through winter. The clumping habits of sedges such as Carex communis add shape to the winter garden as well.

While we may think "exotic" when we think "wisteria." there is an American wisteria (*Wisteria*

frutescens), a climbing vine native to the Midwest and Southeast. I have seen the tortuous, woody vines of wisteria trained across a pergola in late November, barren of greenery, but with a sculp-



Evergreen white pines provide welcome color during the winter and are lovely under snow.

tural beauty all their own.

Look out the window again. Imagine what could be. Now is the time to dream.

Thanks to Scott Namestnik for species suggestions.

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Homoya, Michael, 2012. Wildflowers and Ferns of Indiana Forests, Bloomington: IU Press Indiana Plant Atlas, hosted by Butler University Herbarium, http://indiana.plantatlas.org

missouribotanicalgarden.org/plantfinder

Calling all hikers

To learn about guided hikes offered in DNR nature preserves around the state, see www.in.gov/dnr/naturepreserve. Participation is free, but registration is required.



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Life in the dead of winter

By Patricia Happel Cornwell

What do you see outside your window on this winter day? Go on, take a look. I'll wait. ... Does it please you? Depress you?

Many gardeners dread the desiccated, lifeless appearance of their flowerbeds and landscapes in winter and yearn for warmer, greener

days. However, one's January garden need not be an illustration of "the dead of winter."

A garden can be filled with evergreen foliage, colorful berries, attractive layers of flora from ground cover to treetops. Nature often creates such lovely scenarios, but we who have disturbed nature with our roads, buildings and lawns need to do some planning to achieve them.

The blue-green needles of white pine (*Pinus strobus*), a native evergreen, are lovely laden with snow. It can grow 50 to 80 feet tall so should be given plenty of elbow room.

Two holly relatives, winterberry (*llex verticillata*) and possumhaw (*l. decidua*), bear copious red berries. Their fruits may persist as late as March because they have more sugar content than fat, so birds tend to eat them last.

Winterberry's range includes all of the eastern US and most of Indiana, except for the west central area, while possumhaw's southeastern US range only reaches into the southwest toe of our state. Both are dioecious, with female and male flowers on different trees; both sexes are required in order to generate fruit.

Having first seen beautyberry (*Callicarpa* sp.) as a huge bush covered with nail polish pink berries at Fort Benjamin Harrison State Park in Indianapolis during a frigid winter years ago, I was determined to have one. I don't know if the

one at Ft. Ben was native *C. americana* or if the one I bought was, but mine died after its first winter. Most beautyberries are Asian, and the natural range of our only native US species is the southeastern states – but it was worth a try.

Aptly named Christmas fern (*Polystichum acrostichoides*) is an evergreen perennial sometimes purloined for holiday decorations. It may be happier on a creek bank, but it will accept a shady garden. I have one that cohabits with a patch of dwarf crested iris (*Iris cristata*) and remains green long after the iris foliage has faded to brown.

The dried flowerheads of many perennials are as attractive left standing in the garden as they are in dried arrangements indoors. Picture wild bergamot (*Monarda fistulosa*) and common mountain mint (*Pycnanthemum virginianum*) frosted with snow. Imagine birds hungrily feeding on goldenrods (*Solidago* spp.) and other seed bearers when you do not "clean up" the winter landscape.



American winterberry fruit