



# inpaws journal

Indiana Native Plant and Wildflower Society

Spring 2016

## Rare plant profile

# American Fly Honeysuckle

By Scott Namestnik

If you are like most members of INPAWS, any muttering of the word “honeysuckle” causes your blood to boil, and for good reason. Most honeysuckles that occur in Indiana are non-native, invasive species, but there are several native species with attractive flowers in this genus of shrubs and woody vines, and one native that is extremely rare in Indiana.

American fly honeysuckle (*Lonicera canadensis*)

was known historically from just four northern-tier counties in Indiana: Lake, LaPorte, Elkhart, and Steuben. Until recently, the last confirmed observation of this low shrubby honeysuckle

in the Hoosier state was in 1952. The species was considered by the DNR Division of Nature Preserves to be extirpated from the state.

In April, 2008, while botanizing solo as part of a floral inventory Keith Board and I were conducting of a LaPorte County property, I stumbled upon a small, heavily browsed shrub with opposite, egg-shaped leaves with tiny off-white hairs on their margins. Keith is a retired teacher from Bremen in Marshall County and an excellent field botanist. He had talked to me about his hopes of relocating American fly honeysuckle in Indiana, and we'd

searched for it on several occasions to no avail, but I never expected to find it at this property. You can imagine his excitement when I called him from the field to tell him I had just located a population of this boreal shrub at our study site.

Unfortunately, due to the abundance of deer at this site, no flowers or fruit were present on the plants I discovered. Keith and I made trips to the site annually for several years to try to find American fly honeysuckle in flower. The property owner funded the installation and maintenance of deer enclosure fencing to protect the plants and



Scott Namestnik

*Lonicera canadensis*

## Inside

Book review	13
Finances	7, 9
Hikes	16
Host plant spotlight	2
INPAWS in action	8, 14
Invasives	4, 12

encourage development of flowers. Finally in 2014 I found one plant with a few fruits. Then on May 2, 2015, my hopes finally became reality when at the site I found several such plants in bloom.

American fly honeysuckle is an understory shrub of open woods, forest edges, swamps and bogs that grows in wet to moderately dry soils (Weeks and Weeks, 2012). Under natural conditions it is found in northeastern North America in cooler climates, extending south along the Appalachian Mountains to Georgia. In many parts of its range it is not rare but in Indiana, where many boreal species reach their southern extent, it is currently known from only

*American fly – continued on page 13*

# The enchantment

By Holly Faust

(Portions of the following article contain information from Spring Wildflowers of the Northeast: A Natural History by Carol Gracie, Princeton University Press, 2012.)

## Host plant spotlight

There are so many spring wildflowers to choose to write about, many of them ephemerals. Trying to choose is like standing at the bakery counter in the morning and trying to pick just one delight into which to sink my taste buds. I decided on spring beauty, one of the earliest and most common of spring ephemeral wildflowers.

*Claytonia virginica* is the name given to these



Spring beauty

dainty “fairy spuds” by Carl Linnaeus himself. He chose to name this genus to honor John Clayton (1693-1779) who was a county clerk and enthusiastic plant collector in Virginia. The species name *virginica* refers to the colony of Virginia. For me, knowing the meaning of the scientific name helps me remember it in the future. “Fairy spuds” is a common name given to the plant, as the small corms in the ground are edible, as is all of the plant, cooked or raw. They are said to taste like potatoes.

*Claytonia virginica* sprouts only one leaf in the

spring if it chooses to save its bloom for another year. It will sprout two leaves if it has enough stored energy in its small corm (which resembles a miniature potato with protruding eyes) to form flowers. The leaves are long and slender, two to five inches long, about one-quarter inch wide, varying with the ecotype in which the plant is found. A single vein travels straight down the middle of the leaf blade, somewhat resembling grass.

Each flower’s eight-millimeter display consists of five white to pink petals with varying degrees of darker pink or magenta stripes, and five pink anthers atop white to pink filaments. The stripes in the petals serve as nectar guides for the pollinators that come to drink the abundant nectar located in the glands at the base of each filament. The veins advertise to their pollinators by absorbing UV light. The filaments also act as nectar guides by reflecting UV light. If one looks closely, you will see that at the base of each petal is a yellow color, indicating nectar. Each spring beauty stem can display upwards of 25 blossoms, although five are more common.

Spring beauty’s blossoms can be seen as early as February and as late as May depending on the weather, the latitude and the environment. The blossoms’ colors can vary from white to various shades of pink, and variations frequently occur within the same population. Generally, where a range of flower colors coexists in a species, one color will eventually dominate by means of natural selection. The other colors eventually disappear from the population in the passage of time. However, this is not the case with spring beauty.

A graduate student at Indiana University, Frank Frey, investigated why this happens and he discovered some pretty amazing stuff! Spring beauties with deeper colored petals produced more seeds, possibly indicating that the flowers were more successful in attracting pollinators. But Frey also discovered that there was a downside to having pink blossoms. Slugs preferred to eat the leaves of pink-flowered plants, and plants that lost more than 50 percent of their leaves to slugs and other herbivores were less likely to survive.

There is a red pigment called cyanidin that

# of “fairy spuds”

occurs in varying quantities in spring beauty. The quantity of cyanidin in the plant determines how pink the flower will be. But that is not all; Frey also discovered this cyanidin interacts with flavonols also found in spring beauty. Flavonols such as kaempferol, currently considered a possible cancer treatment, and quercetin, widely distributed in nature, react with the cyanidin. This means that spring beauties with a high percentage of flavonols produce white flowers, and it is the flavonols that discourage the slugs. So in wet years when slug populations are typically higher, the *Claytonia* white flowers have a better chance of surviving and producing seeds.

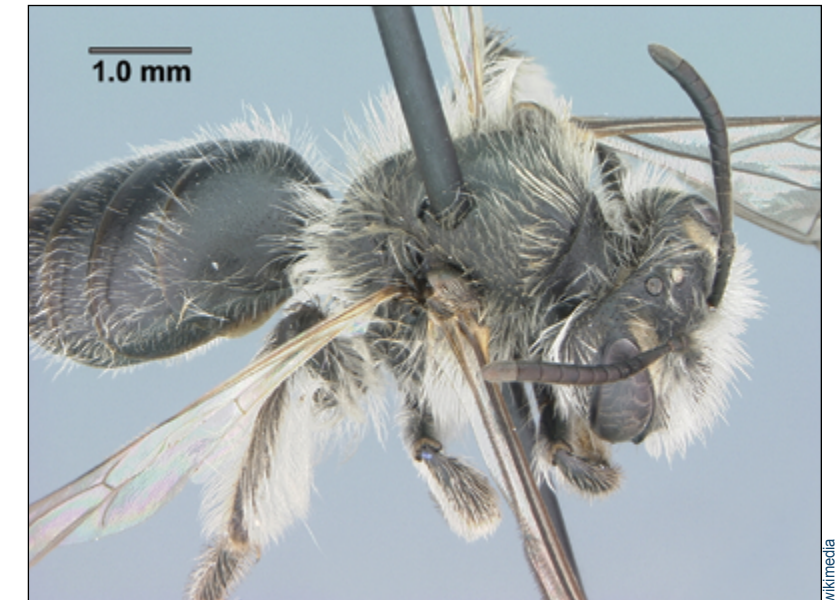
But we are not done yet! Another factor Frey discovered is that there is a type of rust (a fungal disease) called *Puccinia margiae-wilsoniae*, which actually prefers white-flowered *Claytonia*. This rust is seen as bright orange spots on leaves and/or flowers and can deform the plant quite extensively. So in years of high parasitizing by the rust on white-flowered plants, the pink-flowered plants are better able to survive and produce seeds.

Spring beauty’s flowers only open when the sun is out and the temperature is above 52°F. They close on overcast days, rainy days and at night. This helps to conserve pollen, because on these days the pollinators are taking cover and very few are out and about. Some of the native pollinators are flies that can come out on cooler days. Flies such as syrphid flies, giant beeflies, flesh flies and calliphorid flies accidentally pollinate spring beauty when going after a nectar “smoothie.” Several native bumblebees, little carpenter bees, mason bees, cuckoo bees, halictid bees and andrenid bees also pollinate *C. virginica*. Some of these bees come for nectar or pollen, depending on what they need at the time.

An andrenid bee, *Andrena erigeniae*, is a specialized pollinator for spring beauty. This means that spring beauty is the only flower it will dine on. (Some sources say it also feeds on *Erigenia bulbosa*, harbinger of spring.) Talk about a picky eater! In all, there are about 23 different species of native bees and flies that pollinate this wildflower.

Warning: this next part can be very sensuous! *Claytonia virginica*’s pink anthers release pol-

len on the first day the flower opens, when the stamens (male parts) are still lying flat against the style and the stigma (female part) is not yet receptive. On the second day, the stamens bend away from the style and down onto the petals, and the style splits into three at its tip to expose the stigmatic surface that is now ready to receive pollen. Depending on the temperature, the flower may remain in the female phase for up to a week. The separation of the male and female phases ensures that the flowers are cross-pollinated and not self-pollinated. This



An andrenid bee, *Andrena erigeniae*, is a specialized pollinator for spring beauty.

whole process from bloom to seed takes about two weeks. The seeds may not be dispersed for another two weeks, depending on the weather. As the seeds develop, the pedicels (flower stalks) bend downward and the seeds are dispersed by a burst, throwing the seeds up to two feet away, forming colonies.

The seeds are evolved to attract ants with their specialized fat bodies called elaiosomes, whose chemical composition closely matches that of the insects the ants prefer to feed on. The ants take the seed back to the nest; the elaiosome is eaten and the seed taken to the waste pile. This waste pile is the perfect environment for the seed, and it

*Fairy spuds* – continued on page 15



# Plant this, not that:

**By Ellen Jacquart**

Gardening is a fun and relaxing hobby. Unfortunately, some of the plant species available to gardeners are invasive. Such species can move from the garden into our forests, prairies and wetlands, causing a great deal of damage to our native plants and wildlife. Why not plant natives instead? They are often better adapted to our soils and climates than non-native species, and more and more natives are available for landscaping at garden centers.

Here are a few suggestions for native species to plant instead of invasives. You can find information on where to buy native plants at [www.inpaws.org/landscaping/sources-of-indiana-native-plants](http://www.inpaws.org/landscaping/sources-of-indiana-native-plants). Want to know more about invasives? Email [invasives@inpaws.org](mailto:invasives@inpaws.org) to request the new "Invasive Plants in Indiana" brochure.



**< Plant this**

Possumhaw holly (*Ilex decidua*) attracts so much attention because of its spectacular and unique presentation of red, orange, and yellow fruit. The colorful berries usually remain all winter.

**Not that >**

Japanese barberry (*Berberis thunbergii*) forms dense thorny stands in forests and open areas, displacing native plants and reducing wildlife habitat and forage.



**< Plant this**

Wild ginger (*Asarum canadense*) is a fast-spreading groundcover with satiny, heart-shaped leaves.

**Not that >**

Periwinkle (*Vinca minor*), once established, forms a dense carpet to the exclusion of other plants, out-competing native flora.



*Ellen Jacquart is director of northern Indiana stewardship for The Nature Conservancy, chair of INPAWS invasives education committee and an Indiana Pesticide Review Committee member.*

# Landscaping with native species



**< Plant this**

Red maple (*Acer rubrum*) is a versatile shade tree with a full crown of tidy leaves with silvery undersides; its autumn color is scarlet to burgundy.



**Not that >**

Norway maple (*Acer platanoides*) invades our woodlands by out-competing native trees. Wildflower diversity is reduced beneath because Norway maple forms a much denser canopy.



**< Plant this**

The stately swamp milkweed (*Asclepias incarnata*) has pale rose to deep rose-purple flowers in early summer, followed by cylindrical pods that split to release seeds on silken parachutes. Bonus - it also provides food for monarch caterpillars.



**Not that >**

Purple loosestrife (*Lythrum salicaria*) forms dense single-species stands, devastating plant diversity and reducing food and habitat for waterfowl and spawning grounds for fish. Note: this species is illegal to plant in Indiana.



**< Plant this**

Carolina allspice (*Calycanthus floridus*) is a many-stemmed shrub with dramatic maroon, spicy-scented flowers in early summer. It prefers partial to full shade and is also deer-resistant.

**Not that >**

Asian bush honeysuckles (*Lonicera morrowii*, *maackii*, *tatarica* and *x. bella*) have been widely planted throughout the Midwest for landscaping. These highly invasive plants prevent regeneration of forest trees and provide poor habitat for nesting birds.





Check out  
INPAWS'  
great blog at  
inpaws.org

**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](mailto:journal@inpaws.org). Submission deadlines for specific issues are:  
Spring – Jan. 23 for April 1 mailing  
Summer – April 22 for July 1 mailing  
Fall – July 22 for Oct. 1 mailing  
Winter – Oct. 22 for Jan. 1 mailing

**Membership**

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**Share**

Please direct information of interest to [webmaster@inpaws.org](mailto:webmaster@inpaws.org).

**2015 INPAWS financial summary**

**By Don Gorney**

The financial position of INPAWS is solid. The state organization has \$69,000 in cash on hand and no liabilities. Deposit accounts are being consolidated at Chase Bank but some monies are still deposited at Indiana Members Federal Credit Union. There are two temporarily restricted funds, Letha's Fund and the Bill Brink Memorial Garden, where monies have been earmarked for specific purposes.

The designation of temporarily restricted funds and permanently restricted funds is required for nonprofit accounting by Financial Accounting Standard 116.

INPAWS has no permanently restricted funds. The term "unrestricted funds" indicates the amount that is available to cover general operating and day-to-day expenses.

Sources of funds exceeded expenses by \$2,668 in 2015. Membership dues and the plant sale are the sources which provide the funds to be able to publish the Journal and do the many other things INPAWS does during the year. Annual conference income and expenses were about equal.

*Don Gorney is treasurer of INPAWS.*

**Balance sheet– December 31, 2015**

**ASSETS**

Indiana Members checking	\$4,925.28
Indiana Members savings	695.37
Indiana Members CD	10,184.37
Chase checking	4,820.88
Chase money market	48,694.39
<b>Total Assets</b>	<b>\$69,320.29</b>

**LIABILITIES**

Unrestricted - General	\$61,356.40
Temporarily Restricted	
Letha's Fund	\$5,463.89
Bill Brink Memorial Garden	\$2,500.00
<b>Total Temporarily Restricted</b>	<b>\$7,963.89</b>

**TOTAL NET ASSETS \$69,320.29**

**OPERATING STATEMENT**

**SOURCES**

Membership dues	20,225.00
(Dues transferred to chapters)	<b>(2,751.00)</b>
Net membership dues	17,474.00
General Fund donations	1,080.00
Letha's Fund donations	5,155.00
Plant sale receipts	11,710.35
Plant sale bookstore	574.00
Conference registrations	19,729.84
Conf. sponsorships/exhibitors	3,900.00
Conf. bookstore sales	9,152.70
Interest income	137.15
Miscellaneous	0.97
<b>Total Sources</b>	<b>\$ 68,914.01</b>

**EXPENSES**

Bank fees	13.17
Network for Good processing fees	307.80
Network for Good maint. fees	1,259.30
Insurance	2,401.00
Outreach	196.00
Invasives brochure	1,728.85
Membership expense - printing	326.83
Membership coordinator	1,800.00
INPAWS annual directory	1,189.93
Journal printing	3,431.44
Journal prep and editing	4,000.00
Journal postage	1,100.00
Other postage	353.36
Office supplies	68.23
Small grants	5,000.00
Special grants	4,985.00
Website	440.64
Plant sale bookstore expense	377.00
Plant sale plant expense	1,274.94
Plant sale credit card proc. fees	193.40
Plant sale other expenses	1,018.59
Conference expenses	23,887.89
Conference credit card proc. fees	1,275.18
Conference bookstore expense	5,188.80
Meeting expense	32.50
Miscellaneous	300.59
Memberships in other entities	225.00
Letha's Fund disbursements	3,870.15
<b>Total Expenses</b>	<b>66,245.59</b>

**Sources Less Expenses 2,668.42**

## Behind the scenes

# Membership team

INPAWS  
in action

### By Wendy Ford

Meet INPAWS's newly reconstituted membership team: Cindy Monnier, Thomas Higbie and Carolyn Wamsley.

These are the diligent folks who process your memberships, donations and annual conference registrations, working closely with treasurer Don Gorney to get your checks cashed and your online transactions recorded. INPAWS could not function without them.

Cindy Monnier loves database work and is eagerly taking on leadership of the membership team. A former science and math teacher, she went on to get an MBA in finance, worked in the auto industry in market research, then studied library science and did research for the Chamber of Commerce and *Indianapolis Business Journal*. New to INPAWS, Cindy is also active in the Indianapolis Museum of Art's Horticultural Society and Marion County Master Gardeners.

For the past year, Thomas Higbie has collected INPAWS mail from the Post Office box, entered paper memberships and conference registrations, and run macros (automated sequences of instructions) to add online transactions to our master database. A retired engineer from Naval Avionics, where he was a database designer and administrator. Tom is the paid component of the team.

Fitness buff Carolyn Wamsley comes to us from Dayton, where she applied her master's in public administration as volunteer coordinator for the city parks and the National Air Force Museum. Carolyn is happy to be raising a family in central Indiana and wants to keep busy with interesting work between changing diapers. She will handle conference registrations and think about how to engage INPAWS members in volunteering.



Cindy



Tom



Carolyn

We're lacking one more person to complete the team. We want to do a better job of acknowledging members and friends who contribute to INPAWS and we want to build our donor base. This might be an ideal job for a detail-oriented volunteer with people skills. Could this be you?

If you would like to help, or wonder whether you renewed your INPAWS membership, Cindy welcomes your inquiries at [membership@inpaws.org](mailto:membership@inpaws.org).

*Wendy Ford is INPAWS webmaster.*

## 2016 conference to be Nov. 5–6

Mark Nov. 5-6 on your calendar! Plans are already underway for the 2016 INPAWS annual conference.

In a continuation of our efforts to periodically move the event out of Indianapolis while keeping it in central Indiana, this year's conference will be held at the Four Points by Sheraton in West Lafayette. Reduced-rate guest rooms will also be at the Sheraton, making it convenient for those from other regions. Free ground-level parking will be available, eliminating the parking problems that occurred last year.

In an expansion of conference activities, West Central Chapter will provide a tour of a local natural area on Sunday. Those able to stay for the extra day will be able to end their visit with a welcome touch of nature before returning home.

Look for more details, including information on conference speakers, in the summer issue of *INPAWS Journal*. 🌿

## Thank you!

# 2015 gifts to INPAWS

### Gifts to general fund

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Robin MacDonald  
*In name of their wedding guests*  
Lindsey Bullinger & James Wodicka  
*In honor of our amazing mother, Janie Wild*  
Abigail Wild

(Includes memberships at the Booster, Patron, and Benefactor level)



# Enos Mills in Indiana

By Terri Gorney

In 2016, we are celebrating the centennial of the creation of our state park system. Hoosiers are fortunate to live no further than an hour's drive to



Enos Mills was a Colorado native with strong ties to the Hoosier state.

one of our state parks. Richard Lieber is known as the "Father of Indiana State Parks," an appropriate title, as is the statuary tribute to him at Turkey Run State Park.

Another name that deserves mention in connection with our state parks is Enos Mills. Who?

Enos Abijah Mills was a Colorado naturalist, author and photographer who would become

known as the "Father of Rocky Mountain National Park." Why was a Colorado man interested in the creation of state parks in Indiana?

Enos had deep roots in the Hoosier state. It is puzzling that his biographers do not mention this connection. Both of his parents, Enos, Sr., and Ann Lamb Mills, were native Hoosiers. His father was born in South Bend. His mother's family were early settlers of Richmond. In the back country of Colorado, Enos did not carry a gun — his biographers fail to mention that his parents were Quakers and pacifists.

In November, 1915, Mills stated, "To celebrate the one-hundredth anniversary of the birth of the state of Indiana next year without taking definite steps to make permanent state reservations of the primeval wilderness that still exists in three places in the state would be no celebration at all in my opinion."

These three "primeval wilderness" locations were in the counties of Brown, Parke, and Porter.

There are at least two letters that Mills wrote to his friend, author and naturalist Gene Stratton-Porter, in which he urged her to speak out in favor of preserving land for future generations through creation of state parks.

"The state of Indiana," he said, "should buy as much of Brown County as possible. It should acquire at least 1,000 acres in the wildest part of the country [where] we find the primeval forest and a large array of plant and bird life."

He made a good case for purchasing 600 acres in Parke County that contained one of the most spectacular sandstone gorges in Indiana, and he pushed for protecting a large tract of land along the shores of Lake Michigan in Porter County in order to protect its vast array of plant life.

While celebrating the one-hundredth anniversary of our state park system this year, it is fitting that we remember Enos Mills — the man who spoke out in favor of preserving the natural gems we now know as Brown County State Park, Turkey Run State Park and Dunes State Park. Cheers to Enos Mills for his help in forever preserving these areas for all of us to enjoy.

Terri Gorney is vice-president of Friends of the Limberlost and a DNR volunteer at Limberlost State Historic Site in Geneva.

# Recent scientific papers

By Rebecca Dolan

I had the opportunity to publish four papers last year that I hope will be of interest to INPAWS members. They are summarized below, but the entire articles are available online. (To access them, Google Rebecca W. Dolan and the first choice should be my Digital Commons site — thank you, Butler University and BePress, for your search engine optimization).

A paper published in *Arbiculture and Urban Forestry* compares historical forest composition in Marion County, based on 1820 General Land Office surveys, with data from a street tree survey undertaken by the city of Indianapolis and surveys I conducted with Butler students in remnant natural areas in the county. All the species recorded in historical surveys are still present in either remnant natural area forests or among city street trees, but frequencies and sizes have changed and many additional species are now present.

Comparison of the composition of the original forest with current remnants shows a 95 percent decline of American beech (*Fagus grandifolia*), the most common species in pre-settlement forests. Sugar maple (*Acer saccharum*) has more than doubled in number. Silver maple (*Acer saccharinum*) is the most important street tree, with eight species of non-native broadleaf trees among the most common on city streets, along with evergreen gymnosperms that are not documented in the pre-settlement flora. The results are mostly unsurprising, but it is nice to be able to quantify the change. The paper includes information on trees being planted by Keep Indianapolis Beautiful as a glimpse of what future tree composition in the city will be.

Surveys that my colleague Marcia Moore, Butler students and I conducted through the years for IndyParks Land Stewardship office formed the basis of a paper in *American Midland Naturalist*. This one looks at vegetation changes between sample surveys conducted roughly ten years apart at two State-dedicated nature preserves within Eagle Creek Park in Indianapolis: Spring Pond and Eagle's Crest.

No changes in community structure (total species richness, evenness, and diversity) were found. However, the number of non-native species increased between survey years, especially in

Spring Pond, where numbers went from zero to six, five of which are classified as invasive. There was considerable turnover in individual species presence, with perennial forb species most likely to be found in only one year or the other. Species did not rearrange themselves within plots, but completely appeared or disappeared from all plots within a pre-serve between the sample years, suggesting that species composition of the flora is dynamic.

Bacon's Swamp was a significant natural area in Indianapolis, located west of today's Keystone Avenue between 54th and Kessler Boulevard. The glacial kettle bog was a frequent site for field trips by Butler ecology classes, starting as early as the 1920s. In a paper published in the *Proceedings of the Indiana Academy of Science*, I reanalyze historical plant records using current Floristic Quality Assessment techniques and compare the historical flora with that which remains, based on recent surveys. Unfortunately, little high-quality habitat remains, but historical records support the premise that Bacon's Swamp was floristically unique in central Indiana.

The final paper details a massive effort underway in Indianapolis to remove invasive Amur bush honeysuckle (*Lonicera maackii*) from along waterways in the city. My co-authors and I present the project in the context of civic ecology. In response to local residents' concerns and following months of planning, over 2,000 volunteers removed more than 760 cubic meters of Amur bush honeysuckle from 30 acres of land along Fall Creek during a single day. The honeysuckle removal served ecological and environmental goals of removing an invasive species, but also helped foster in citizens a sense of place and connection with Indianapolis's waterways, reflecting local history and culture. Aspects of the project can serve as a model for action in other cities. This paper was published in the journal *Ecological Restoration*.

Rebecca Dolan is director of the Friesner Herbarium at Butler University, a member of Central Chapter and a Past President of INPAWS.



Stanley Cain's inaugural undergraduate Plant Ecology class at Butler University visits Bacon's Swamp in 1928.

From left to right: Stanley Oren, unknown student, Rex Daubermire, and Alice Phillips. Rex Daubermire, Oren, Daubermire, and Phillips subsequently earned Ph.D.s in plant ecology at other universities.

Rex Daubermire



# Dreaming of spring

By Dona Bergman

The seed catalogs are here! Those colorful catalogs, brimming with gorgeous blooms and enormous veggies give me hope that spring will eventually arrive. Browsing these catalogs is better than fantasizing about winning the lottery: I envision my yard chock-full of lush beds

of lettuce, tomatoes, green onions and zucchini, even blueberry bushes and fruit trees. There would be a riotous bounty of red, pink and yellow blooms and

birds, bees and butterflies in an orgy of flight and song. Maybe there would be an arbor supporting native honeysuckle and climbing pink roses. Then my husband reminds me it takes a year's work and planning to turn dirt into soil, that we have rabbits, groundhogs and deer, and that he doesn't even like zucchini. I plummet back to reality.

Before we started the Southwest Chapter of INPAWS (SWINPAWS), I didn't know much about native plants or invasives. I happily planted the "bad guys" out of ignorance and misguided good intentions. I still have a lot to learn, but am much more cynical as I read the catalogs' glowing descriptions of their plant offerings. At the very least, I don't want to add to the spread of invasive species.

I'm wary of catalogs that don't provide botanic

names for plants. Tree of heaven sounds romantic, but *Ailanthus altissima* by any other name is still a real pest of a tree. Would you order it if the catalog called it Chinese sumac? How about stink tree?

It's easy to look up a plant on the internet, so you can do a little fact-checking before you place your order. Missouri Botanical Garden has a "Plant Finder" on its web site ([missouribotanicalgarden.org](http://missouribotanicalgarden.org)); just type in the common or scientific name of the plant you're researching.

I am paranoid about plants from Japan or China. They have a place in their native habitats, with insects and animals that feed on them and keep them in check. Here, our insects and animals have also evolved to utilize plants that evolved with them.

Maybe one exotic plant in your garden isn't a big deal, but when the exotic decides to "be fruitful and multiply" and elbows out the native plants, that's when it earns "invasive" status (think kudzu or Japanese honeysuckle).

You might be surprised that the following popular ornamental plants, still sold at many garden centers, are serious invasives:

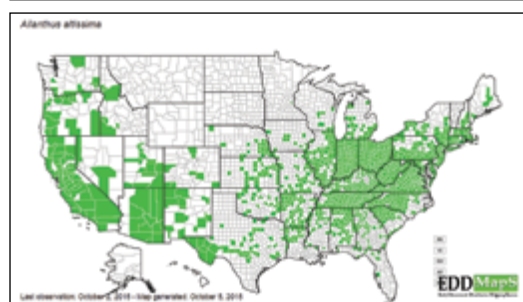
Bradford or Callery pear tree (*Pyrus calleryana*): As you drive down a highway in early spring, many of those white blooming trees along the road are "volunteer" Bradford/Callery pears taking over territory from native trees.

Burning bush (*Euonymus alatus*): In the fall, you can spot the bright red foliage of burning bushes taking over the forest floor and muscling out native plants.

Butterfly bush (*Buddleja* L.): Sadly, this lovely ornamental has become a real problem. Some new cultivars are available which are supposed to be non-invasive.

Fortunately, garden centers and catalogs are offering a wider variety of native plants and their cultivars (nativars), and there are some non-native ornamentals that are well-behaved. You can check out species in question at [www.inpaws.org](http://www.inpaws.org), on the SWINPAWS Facebook page or with a Master Gardener.

*Dona Bergman is director of the Evansville Department of Sustainability, Energy and Environmental Quality.*



*Tree of heaven is a very rapidly growing tree, possibly the fastest growing tree in North America. Growth of one to two meters (3.3 to 6.6 ft) per year for the first four years is considered normal in some regions.*

## Speak to the Earth by Rachel Peden

Reviewed by Holly Faust

From time to time, I find a non-fiction book like this little gem, in which the author has written about her outdoor experiences of the past. This brilliant writer may have been a farmwife of 45 years, but she was very much in tune with her environment and its natural rhythms. *Speak to the Earth* by Rachel Peden (IU Press/Quarry Books, 2011) has been touted by its publisher as "a book of rural virtues and a naturalist's philosophy." I agree.

Peden was a newspaper columnist for the

*Indianapolis Star* and the *Muncie Evening Press* for over 30 years. She writes beautifully, like no other, in describing her surroundings and the nature and people that are a part of them. I love reading such books because they give me a window from the past to understand where people get their ideas, according to what was happening in nature at the time.

The lyricism of Peden's writing is demonstrated in this description of the wind in *Speak to the Earth*: "The early-morning wind ran downhill singing of spring. At the wildlife corner of the front yard it pushed through slits in the tops of maple and locusts, turning them into a woodwind section of its orchestra. It ran on up the front porch and shook the solemn clay wind-bell at the roof's edge and the bell answered, measuring the wind in its earthly utterances."

This book provides a road less travelled for anyone who cares to take a stroll and find out how to better understand plants and animals and how past generations interacted with them. Peden has written two other books, *Rural Free: A Farmwife's Almanac of Country Living* (first published 1961; IU Press, 2009) and *The Land, the People* (first published 1966; IU Press, 2010). I intend to take those walks with her as well. 🌿

American fly – continued from page 1

the LaPorte County population, approximately two miles from where legendary Indiana botanist Charles Deam found it in 1911.

Although American fly honeysuckle can grow up to six feet tall, it is often much shorter; the LaPorte County plants are about knee-high. Unlike Eurasian fly honeysuckles (e.g., *Lonicera tatarica*, *L. morrowii*, *L. x bella*, and *L. x muen-deniansis*), which have hollow branchlets, American fly honeysuckle has solid branchlets filled with white pith (Swink and Wilhelm, 1994).

American fly honeysuckle also has entire, opposite, ovate leaves to about three inches long, with obtuse to acute leaf

apices (tips) and off-white ciliate (hairy) margins and petioles (Swink and Wilhelm, 1994; Weeks and Weeks, 2012). Its tubular, nearly regular, pale yellow to creamy flowers (often tinged with pink) occur in pairs in the leaf axils; these flowers give rise to red, fleshy oblong berries in mid- to late spring (Swink and Wilhelm 1994; Weeks and Weeks 2012).

The next time you curse the honeysuckles, be sure to think of the honeysuckle species that were here prior to European colonization, and especially of the extremely rare American fly honeysuckle, hanging on at one location in the northwestern corner of our state.

### References:

Swink, F. and G. Wilhelm, 1994. *Plants of the Chicago Region*. 4<sup>th</sup> ed., Indianapolis: Indiana Academy of Science

Weeks, S.S. and H.P. Weeks, Jr., 2012. *Shrubs and Woody Vines of Indiana and the Midwest: Identification, Wildlife Values, and Landscaping Use*, West Lafayette, IN: Purdue University Press

*Scott Namestnik is a botanist at Orbis Environmental Consulting, treasurer of INPAWS North Chapter and INPAWS Journal team leader.*



Book  
review





## Inside INPAWS: chapter news

**West Central Chapter** members have recently enjoyed programs on “Walnut and Butternut in Indiana” by Lenny Farlee, “Orchids of Woods, Wetlands and Prairie” by Derik Luchik and “How to Restore a Marsh” by David Hicks. On April 25 Alan McPherson will present “Nature Walks in Indiana.”



South Central Chapter members cut and pulled bush honeysuckle at Cascades Park in Bloomington last fall. From left are Judy Ochs, Greg Hass and Steve Dunbar. Joe Phillips, who took this photo, was also on the work crew.

The group meets at 7 p.m. on the fourth Monday of the month at Lilly Nature Center at Celery Bog Park in West Lafayette. They do not meet in May, June, July or December.

Last August, Bill Fielding and Allen Shaffer of the Indiana Department of Transportation discussed native plantings along Indiana highways. In September, chapter member Ed Zschiedrich shared photos of his favorite wildflowers from Indiana and further afield.

Chapter president Greg Shaner gave a presentation on wildflowers of southeast England in October, and in November Dave and Jane Savage discussed how to establish a prairie and updated us on the Mounds reservoir project.

In addition to chapter meetings, WC INPAWS co-sponsors “Wednesdays in the Wild” along with West Lafayette and Tippecanoe County Park Departments, Sycamore Audubon Society, and NICHES Land Trust. These are either indoor talks or outdoor excursions, depending on the topic and season. Recent presentations were “Indiana Forests: A Walk through Time” by Lenny Farlee and “Urban Wildlife” by Megan Dillon.

The chapter also supports and participates in the work of the RIP (Removal of Invasive Plants) squad led by Patty Rader. This group removes invasive plants, mainly garlic mustard, Japanese stilt grass, Amur bush honeysuckle and burning bush, from Tippecanoe County and West Lafayette parks. During 2015, 24 volunteers from the community and 34 students from Purdue participated in this work. The group donated 106 hours of work in West Lafayette parks and 327 hours of work in Tippecanoe County parks. The chapter, in partnership with the local Audubon Society, has received grants to help with the work at the Ross Hills County Park, which has enabled it to hire some of the work done and purchase equipment and herbicide for work days there. Funds from one of the grants paid for purchasing a brush cutter, which is being used there and will be useful in other locations in the future.

Chapter member Joan Mohr Samuels assembles and widely distributes “Native Roots,” a quarterly listing of all programs dealing with nature in our area.

The chapter also has an “adopt-a-spot” along one of the major entries into West Lafayette (old US 52), which members continue to work on.

Members of **South Central Chapter** spent a November afternoon cutting and pulling bush honeysuckle at their adopted spot at Cascades Park in Bloomington. Over the last three years, 10 members have eliminated approximately 2,300 of these plants from the site.

In January, Sandy and Jeff Belth hosted a gathering of 16 members for the chapter’s “Winter Blues Plant Pep Rally” at their Bloomington home. Paul Rothrock characterized the meeting as a chance to “review favorite plants and places seen in 2015 and give thought to those we want to see in 2016.”

## What blooms when?

Flowering periods for many garden plants were reported in the 1995 book *What Flowers When*, by Janice Glimm-Lacy, edited by Wendy Ford. For each species in her Indianapolis garden, Glimm-Lacy recorded the date she observed the first fully-expanded flower and the last date blossoms were still in good condition.

For Eastern redbud (*Cercis canadensis*) between the years 1989 and 1994, she recorded the tree’s earliest blossoms on April 12, 1991, and the latest on May 15, 1993.

For flowering dogwood (*Cornus florida*), Glimm-Lacy



wikimedia

recorded the earliest bloom on April 8, 1991, and the last on May 13, 1994. For red-twig dogwood (*C. sericea*), she observed earliest blossoms on April 30, 1990 and 1991.

How will 2016 compare?



Left: blossoms of eastern redbud (*Cercis canadensis*)

Above: Janice Glimm-Lacy’s 1995 book

### SCINPAWS to tour Eco Logic nursery July 30

On Saturday, July 30, at 10 a.m., INPAWS South Central Chapter members will tour Eco Logic’s native plant nursery in Bloomington. The nursery has a storm water wetland and prairie with over 70 species of native plants. Participants will also try to identify the pollinators they see. For details, contact chapter president Steve Dunbar at [clarencestevendunbar@hotmail.com](mailto:clarencestevendunbar@hotmail.com).

### Hendricks native plant sale April 16 at Sodalis Park

Hendricks County Parks Foundation will hold its second annual Native Plant Sale and Festival April 16, 9 a.m. to 1 p.m., at Sodalis Nature Park, 770 S. County Rd. 975E, Plainfield. This year’s event will include children’s activities, demonstrations by experts, food trucks and vendors. The group sold close to 3,000 natives last year and hopes to sell 5,000 this year, including trees. More information may be obtained by contacting Julie Randall at [jrandall@pfohc.org](mailto:jrandall@pfohc.org) or 317-694-5097.

### Fairy spuds – from page 3

can then germinate safely away from the mouths of seed-eating animals.

Carolina spring beauty (*C. caroliniana*) has flowers just like our spring beauty but its leaves are more spatulate (spoon-shaped). Mistaking the leaves has led some to believe they have seen Carolina spring beauty in the Hoosier state. However, in *Wildflowers and Ferns of Indiana Forests*, DNR botanist Mike Homoya says not to bother looking for *C. caroliniana* in Indiana. One would be more apt to find it in Ohio, Kentucky or Michigan. I trust his advice because I know of no one who has spent more time in our natural environments looking for and identifying plants than he has!

This spring, grab a blanket and a magnifying lens and go find a patch of these edible “fairy spuds.” Lie down on the ground and spy on the pollinators and ants busying themselves around spring beauty and revel in watching their pollinating and seed dispersal behavior. All of this detailed information gives me a better appreciation for a “common” spring native wildflower. I can hardly wait for them to pop up this spring!

Holly Faust is an interpreter with Hamilton County Parks and Recreation at Cool Creek Park in Carmel.





## Indiana Native Plant & Wildflower Society

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# DNR Field Days

Indiana Division of Nature Preserves and its partner organizations will offer guided hikes in several state preserves in the coming months. Participation is free, but registration is required at [www.in.gov/dnr/naturepreserve](http://www.in.gov/dnr/naturepreserve).

<u>Date</u>	<u>Preserve</u>	<u>Co-sponsor</u>	<u>County</u>
April 9	Calli	INPAWS	Jennings
May 7	Bluffs of Beaver Bend	INPAWS	Martin
May 14	Moraine	INPAWS	Porter
May 14	Brown County Scarps	INPAWS	Brown
May 21	Fogwell Forest	ACRES	Allen
May 21	Twin Swamps	INPAWS	Posey
June 24	Dunes	INPAWS/LMCP	Lake
Aug. 13	Chamberlain Lake	INPAWS	St Joe
Sept. 18	Eagles Crest	INPAWS	Marion
Sept 14	Stoutsburg	SHLT	Jasper
Sept 24	Clark & Pine	INPAWS	Lake
Oct 15	Blue Cast Springs	ACRES	Allen

ACRES = ACRES Land Trust; LMCP = Lake Michigan Coastal Program; SHLT = Shirley Heinze Land Trust