



inps journal

Indiana Native Plant Society

Spring 2020

Natural area profile

Moraine Nature Preserve

By Derek Nimetz

A visit to Moraine Nature Preserve in Porter County has the amazing ability to put a smile on my face every day. Time slows down and stress fades away when I walk the trails of this preserve, situated nine miles south of Lake Michigan. Some

lane through an upland forest, past three ponds, up and down hills, and past a private driveway to get to the parking lot.

From the gravel lot, there are two public trails to enjoy and explore. Both are about a mile and a half in length, but they differ in difficulty and plant composition. The trail south of the entrance road is relatively flat and easier to hike. It winds around the edge of former farm fields which are slowly



Lynne Tweedie

L. A. Tweedie

In the Moraine preserve, "The calls of wood ducks, spring peepers and belted kingfishers echo from the ponds."

people enjoy the peace and quiet the preserve has to offer, but I enjoy the diversity of habitats, plants and animals that are protected within this natural area.

Moraine Nature Preserve, which is approximately 474 acres, is owned and managed by the DNR Division of Nature Preserves. In 1971 it became the 14th State of Indiana dedicated nature preserve and the first one directly managed by the division. Almost five decades later, DNR acquired another 405 contiguous acres, known as Moraine Addition Nature Preserve. Natural communities contained within Moraine Nature Preserve include mesic and dry-mesic upland forests, mesic floodplain forest, natural ponds, shrub swamp and fens.

Entering the preserve can be a little surprising. The ten-vehicle parking lot is about half a mile from the nearest county road. One must travel a single

succeeding to upland forests and loops back to the parking lot. In these fields, some of the dominant tree species are tulip tree (*Liriodendron tulipifera*), basswood (*Tilia americana*), black cherry (*Prunus serotina*) and white oak (*Quercus alba*). This trail also leads visitors to the edges of steep ravines and mature forests with large diameter red oaks (*Quercus rubra*). In spring, mayapples (*Podophyllum peltatum*), white baneberry (*Actaea pachypoda*), red trillium (*Trillium recurvatum*), and common blue violet (*Viola sororia*) can be observed from the trail's edge. However, there are also some impressive populations of poison ivy (*Toxicodendron radicans*) so visitors are well-advised to stay on the trail.

The trail north of the entrance road is narrower and traverses some steep elevation changes. This trail meanders through both young and older upland forest natural communities with some exposed roots along the trail. Red maple (*Acer rubrum*), sugar maple (*A. saccharum*) and American beech (*Fagus grandifolia*) occur, along

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Native plant profile

Wild petunia

By Judith Lieberman

One of Indiana's unsung beauties among its wildflowers is the wild petunia. Indiana has three species of *Ruellia*: woodland wild



Jon Zander (Digon3)



peganum - wikimedia

Above: Carolina wild petunia, below: hairy wild petunia

petunia (*Ruellia strepens*), sometimes called limestone petunia; hairy wild petunia (*R. humilis*); and Carolina wild petunia (*R. caroliniensis*) (Homoya, 2012). These are not true petunias but get their common name because the plants sport generous-sized blossoms similar in size and shape

to garden petunias, which are indigenous to South America and unrelated.

Woodland petunia is a plant of wet areas, found along stream banks, woods edges and in open woods. It grows to a height of two feet. Unlike its cousins that thrive in drier

sites, woodland petunia's stems and leaves are mostly hairless (glabrous), and its ovate leaves are the biggest of the group, up to six inches long. One curious thing about this plant is that it may have a secondary flowering phase in the fall. These fall flowers do not open but are full of seeds at maturity (Homoya, 2012; www.illinoiswildflowers.info). The seeds of both types of woodland petunia's flowers, like other *Ruellia* spp., disperse from capsules by "exploding." Areas of dense shade, like forest patches where sugar maple has taken over, can cause the plant to die out.

Hairy wild petunia likes sunnier, drier habitats. It is one to two feet tall, with narrow leaves and stems covered in soft white hairs. Because of its ability to thrive in poor soil and dry places, hairy wild petunia is being planted more often in cultivated gardens that use native plants.

Carolina petunia is a plant of the southeastern US but can be found in southern Indiana counties. It prefers moist, sandy soil and part shade but can tolerate drought and sun. It is a host plant for the buckeye butterfly (*Junonia coenia*) while the other two *Ruellia* spp. are said to be only occasional hosts for it (Florida Native Plant Society, 2020). As in other wild petunias, its large petals have creases which guide pollinators to the center of the flower (www.illinoiswildflowers.info). It is bushier than the other species and has hairy stems, but hairless leaves. It is about one and one-half feet tall.

The flowers of all wild petunia species only last one day, but a long blooming period, usually June through July, makes up for this. Their showy pink to light purple blooms are lovely and worth a second look.

References

Florida Native Plant Society. www.fnpl.org, accessed Jan. 25, 2020

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Judith Lieberman is a member of INPS Central Chapter.

U.S. Congress

Bi-partisan conservation effort advances

By Tom Hohman

According to the National Wildlife Federation, one-third of all US wildlife species are imperiled or vulnerable. However, without much fanfare, a bi-partisan effort to help conservation and America's endangered wildlife is advancing in Congress. Planning for this effort began years ago when a coalition of leaders from conservation organizations and the private sector met to discuss how to make more resources available to help lagging conservation efforts. The result has been the Recovering America's Wildlife Act.

Moraine – from page 1

with shagbark hickory (*Carya ovata*) and flowering dogwood (*Cornus florida*). Spicebush (*Lindera benzoin*), pawpaw (*Asimina triloba*) and serviceberry (*Amelanchier arborea*) dominate the understory, while jack-in-the-pulpit (*Arisaema triphyllum*), cutleaf toothwort (*Dentaria laciniata*) and wild geranium (*Geranium maculatum*) are scattered on the forest floor.

This north trail also brings visitors closer to the naturally occurring ponds at Moraine Nature Preserve. Although some of the ponds are relatively small, they provide habitat for numerous salamanders, frogs, turtles and dragonflies. These ponds also provide habitat to a few rare wetland plant species including branching bur-reed (*Sparganium angrocladum*). Some of the plants found along the borders of these ponds are buttonbush (*Cephalanthus occidentalis*), winterberry (*Ilex verticillata*), swamp rose (*Rosa palustris*) and an occasional marsh marigold (*Caltha palustris*).

Moraine Nature Preserve has much to offer visitors in every season, but spring is when the woods and wetlands erupt with activity. The calls of wood ducks, spring peepers and belted kingfishers echo from the ponds as one hikes along the trails, admiring the beautiful blossoms of bloodroot (*Sanguinaria canadensis*), while flashes of brightly-colored migrating birds catch one's eye as they scatter among the trees.

For more information and directions to Moraine Nature Preserve, visit www.in.gov/dnr/naturepreserve/files/np-Moraine.pdf.

Derek Nimez is an ecologist with the DNR Division of Nature Preserves and a resident of Moraine Nature Preserve.

The proposal would provide \$1.4 billion annually in permanent, dedicated funds for state fish and wildlife agencies and tribal nations in their efforts to prevent wildlife from becoming endangered. A portion of the funds can also be used for species already officially classified as endangered, but the intent is to become proactive. This would be done by actions identified in locally developed State Wildlife Action Plans (SWAPs).

Indiana, like most states, has already developed a SWAP, but has no budget to implement it. If passed, the proposed bill would make \$16-\$20 million available to Indiana annually for the plan. To access these funds, Indiana would need to approve matching funds, estimated to be about \$5-\$6 million.

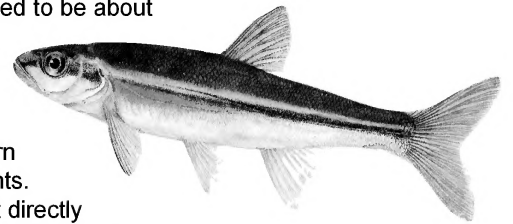
As INPS members know, the health of our wildlife populations is highly dependent on healthy habitat, which is in turn heavily dependent on native plants. While endangered plants are not directly the focus of the bill, it does specifically say that plants are crucial to healthy habitats for fish and wildlife, and that funding for conservation efforts of plant species is allowed as part of the SWAPs. Indiana's SWAP identifies habitat and the threat of invasive species as the prime threat to many of our imperiled wildlife species.

The current version of the proposal is contained in HR 3742. It was introduced by Rep. Debbie Dingell (D-Michigan) and Rep. Jeff Fortenberry (R-Nebraska) and has a bi-partisan list of over 160 co-sponsors, including Rep. Susan Brooks (R) of Indiana. On Dec. 5 the bill was passed out of the House Natural Resources Committee with a vote of 26-6.

You can find more information on this proposed law on the National Wildlife Federation website at www.nwf.org/Our-Work/Wildlife-Conservation/Policy/Recovering-Americas-Wildlife-Act. Information, including a current list of co-sponsors, can also be found at www.congress.gov.

Editor's note: In February, the board and council of INPS voted unanimously to join numerous environmental organizations in supporting passage of HR 3742.

Tom Hohman is president of Indiana Parks Alliance, a member of the INPS board of directors and past president of INPS.



The reidside dace (*Clinostomus elongatus*), a colorful minnow, is listed as endangered in Indiana. (painting by Ellen Edmundson)

Naturalist profile

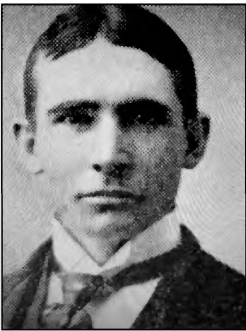
Howard Walton Clark: “all-around

By Terri Gorney

Who is the man behind the Howard Walton Clark Scholarship at Indiana University?

In 1905 *The Star Press* newspaper in Muncie wrote, “One of the most popular of the government scientists is H. Walton Clark of Fort Wayne. He is conceded to be one of the best all-around field naturalists the government has. He is one of the field assistants in the division of scientific inquiry under Dr. Evermann. The habits of fishes and the character of aquatic plants form his life work. He spent an entire year studying Lake Maxinkuckee in Indiana and is now preparing his report.”

For most, to be an expert in one field is an accomplishment. Clark mastered both zoology and botany and contributed to the knowledge of both.



Jason Hollinger IU Archives



Clark observed how plants with broad, sheltering pads such as water lilies furnish shade in the aquatic environment.

In the summers of 1899 and 1900, he conducted a detailed field study of the flora of Eagle Lake in northern Indiana. There is now more than one Eagle Lake and none currently with that name matches his description. Research showed that his Eagle Lake is now known as Winona Lake in Kosciusko County. His report was published as “Flora of Eagle Lake and Vicinity” (Indiana Academy of Science, 1901).

His summary of the lake’s flora presented a remarkable variety of conditions and ecological regions: upland forest with native trees and shrubs; cleared and abandoned upland where new flora had taken over; creeks, valleys and gullies; introduced flora along railroads; lowland forest; lake plain; tamarack swamp; ponds, temporary and permanent; quaking bogs and bayous; ice ridge; beach; and the lake with several zones of plants.

Over several years at Lake Maxinkuckee* in Marshall County, he identified a total of 817 plant species, both aquatic and terrestrial. His report was published in 1920 as a two-volume set, “*Lake Maxinkuckee, a Physical and Biological Survey*,” in collaboration with Dr. Barton Evermann (Indiana Dept. of Conservation, 1920). The books can be found in the Harvard Biodiversity Heritage Library.

Lake Maxinkuckee was studied for the physical and biological conditions in a typical glacial lake of northern Indiana. This lake contained 64 species of fish and more than 100 species of aquatic plants. From Aug. 27, 1900, to July 11, 1901, Clark spent nearly a year alone at the lake, devoting his time to field observations. He noted the essential connection of plants to fish. The plants perform the important function of furnishing oxygen to the water. Plants such as water lilies (family Nymphaeaceae) with broad, sheltering pads furnish shade. Other plants provide places for smaller fish to hide from larger fish. Plants such as pondweeds (family Potamogetonaceae) are eaten by fish such as bluegills that eat a mostly vegetarian diet.

Clark was born to Wilson and Sarah Partner Clark on their Aboite Township, Allen County, farm in 1870. From a young age he was interested in natural history and wanted to make it his life’s work. He was valedictorian of the Fort Wayne High School class of 1892. While studying at Indiana University in 1894, he contracted typhoid fever and almost died, but recovered and graduated with his class. He obtained a BA (1896) and an MA degree (1902) in botany from IU. He married Prudence Bowman in Fort Wayne in 1907 (IU Archives).

Clark worked for the ichthyology department at the Field Columbian Museum

field naturalist”

in Chicago from 1902 to 1904. From 1904 to 1909 he worked as an assistant for the US Bureau of Fisheries and, for a time, lived in Washington, DC. In the summer of 1908, he conducted a study of mussels in the Maumee River with Charles B. Wilson. That fall, Walton presented a lecture to the Allen County Audubon Society (now Stockbridge Audubon Society) about this research. Clark and Wilson's work was published as "The Mussel Fauna of the Maumee River" (US Dept. of Commerce and Labor, 1912).

From 1910 to 1923, Clark was assistant superintendent of the US Fish Culture Station in Iowa. He moved to California in 1923 to become the collector and aquarist at the new Steinhart Aquarium in San Francisco for the California Academy of Sciences. He became assistant curator of the California Department of Fishes in 1925 and curator in 1933, a position he held until his death (MacFarland, 1941).

After a brief illness, Clark died in 1941. His obituary in the *San Francisco Examiner* stated that he was "an enthusiastic amateur horticulturist" and "widely known among local botanists and amateur gardeners." An understatement for a man with two degrees in botany and a life-long passion for plants!

After his death, his wife established the Howard W. Clark Scholarship in Biology at IU. She asked that the scholarship be given to those students whose "young souls thirst for knowledge." This is an ongoing scholarship.

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- Biodiversity Heritage Library, www.biodiversitylibrary.org, accessed Jan., 2020
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- IU Archives, accessed Jan., 2020
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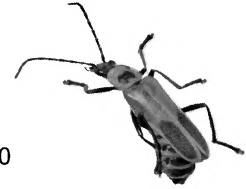
Terri Gorney is a member of INPS Northeast chapter and vice-president of Friends of the Limberlost.

Pollinator Day is April 25 at Floyd Purdue campus

Floyd County Purdue Extension Office will host its annual "Pollinator Day" Sat., April 25, from 10 a.m. to 3 p.m. at the Purdue Research Park, 3000 Technology Ave., New Albany.

The free program will feature indoor classes on native bees, planting native species for pollinators, preserving bees and butterflies, and related topics. There will be booths on the lawn with hands-on activities, kids' crafts, lunch and T-shirts.

The event will go on "rain or shine." The venue is located off Charlestown Rd. across from Kohl's. For more information, call 812-948-5470, email Gina Anderson at gmanders@purdue.edu, or visit Purdue Extension Floyd County on Facebook. 🌱



Goldenrod soldier beetles (Chauliognathus pensylvanicus) help pollinate their namesake flower.

2019 Annual Conference sponsors

Thanks to all 2019 Annual Conference sponsors who contributed \$400 or more to support the event. Smaller donors were acknowledged in conference materials.

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Late breaking news

With sadness, Patricia Happel Cornwell and Katherine Newkirk, editors of this *Journal*, report that INPS has asked us to step away from our posts effective after the next issue (summer, 2020).

We extend heartfelt gratitude to our many collaborators – from mail room to board room – and especially to the *Journal's* volunteer writers, photographers and fact-checkers (you know who you are). Together, we've taken the *Journal* on a great run over the last seven years. 🌱

Toxicity: a defense mechanism

Botany Basics



Rough horsetail (Equisetum hyemale) absorbs silicon from the soil to make itself unpleasantly abrasive to herbivores.

By Mackenzie McQueen

Unlike animals, plants are unable to move away from potential predators. This sessile nature forces plants to adapt and evolve novel strategies for defense. A plant's first line of defense can be a physical armor. Such defenses include thorns or prickles like those on roses (*Rosa* spp.); trichomes, hairs on the surface of a plant like those on most milkweeds (*Asclepias* spp.); a waxy coat on a plant's surfaces; and even the use of inorganic compounds absorbed from the soil, such

as silicon, to make plants (*Equisetum* spp.) abrasive to the mouths of herbivores. When such a first line of defense fails, a plant may turn to toxic chemicals (Plant Defenses, 2020).

Most plant defense chemicals are known as *secondary metabolites*. This means these chemical defenses are not used directly in any metabolic pathway; defense is their only purpose. Secondary metabolites can impact predators in both direct and indirect ways. A major example of an indirect impact is the increased production of nectar to attract insects such as ants (*Formicidae*), which not only eat the nectar but also defend the plant from herbivores. Direct chemical defenses are used by the plant to ward off potential

predators. Their impact on herbivores can be quite profound. They can simply make the plant unpalatable, but frequently have more drastic consequences. They can impact the growth or reproduction of the animal or potentially kill the herbivore. Despite the benefit of these chemical defenses, they do cost the plant energy that could be used for growth or reproduction (Plant Defenses, 2020).

Plants have two main forms of direct chemical defenses: constitutive and induced. *Constitutive defenses* are always active within the plant,

typically with high concentrations of the compound present at all times. This is common in tropical plants in peril of being attacked by insects year-round. In *induced chemical defenses*, it is typical to see the compound in the plant at much lower concentrations until needed. Induced defenses are turned on or turned up when the plant is wounded.

A defense chemical that is active in almost every plant is jasmonic acid. This compound regulates genes that can have huge effects on herbivores, including slowing growth, preventing reproduction, and even killing the predator (Plant Defenses, 2020).

In a broader category, plants have two main groups of defenses: qualitative and quantitative (Mortensen, 2013). *Qualitative defenses* are those that are effective against generalist herbivores. Specialist herbivores that coevolved with a plant species have adapted ways to get around these defenses and, in some cases, even use them to advantage, such as the relationship between monarchs (*Danaus plexippus*) and milkweed (*Asclepias* spp.). These defenses are typically low doses of powerful compounds, often produced in short-term parts of plants such as seeds and stem shoots.

Quantitative defenses may not be as powerful but are found in higher concentrations. An example of this is the latex found in milkweed. Quantitative defenses are effective against both generalist and specialist herbivores.

Plants frequently have chemical compounds that affect one class, genus or species but not another (Mortensen, 2013). These chemical relationships allow plants to use animals, including humans, to spread their seeds through their consumption, not only giving rise to more plants but also to a greater food source, allowing more species to thrive.

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Plant Defenses, learn.genetics.utah.edu/content/herbivores/defenses, Genetic Science Learning Center, accessed Jan., 2020

Mackenzie McQueen is a sophomore biology student at Butler University and a student assistant at Butler's Friesner Herbarium.

May 9 at KIB

New location for INPS plant sale

The annual INPS plant sale and auction moves this year to the Keep Indianapolis Beautiful (KIB) facility at 3655 E. Raymond St.

Emily Wood, executive director of Indiana Wildlife Federation, will kick off the event at 9:30 a.m. Sat., May 9, with a half-hour talk on how to "Garden for Wildlife." Wood holds a BS degree in wildlife biology from Ball State University. Her work focuses on using native landscaping to support wildlife and pollinators.

Parking and entrance to the sale will be from S. Sherman Dr., on the north side of the building. Doors will open at 9 a.m. A \$10 ticket to the talk serves as a voucher for \$10 off an auction purchase. Ticket holders will be allowed to enter the sale at 10 a.m. The public will be admitted free at 10:15 a.m. Buyers are advised to bring containers or boxes to transport their purchases home.

The auction of specimen and rare plants, including trees and shrubs, will begin at 11 a.m. following a brief presentation from KIB staff. This year's auctioneers will be Central Chapter members Nancy Hill and Tammy Stevens. The auction will conclude about 12:30 p.m., with remaining sale plants auctioned off table by table.

Donated native plants can be dropped off Friday, May 8, between 3:30 and 7 p.m. or on the day of the sale between 7 and 9:30 a.m. →

The drop-off location is on the east side loading dock of the building; enter off Sherman Dr. and follow signs.

Used books, only about native plants, will also be sold. Donated books can be dropped off during the same hours as plants. Anyone with a large number of books to donate may also contact book sales chair Suzanne Stevens at booksale@indiananativeplants.org to make other arrangements.

A new feature of the sale is that this year the INPS website will have a list of plants that are expected to be donated by nurseries or individuals. Donors are asked fill out an intent-to-donate form online at indiananativeplants.org.

Volunteers are needed to help carry, move, identify and label plants, direct traffic, check out buyers and do other chores.

Volunteers must register online at signup.com/go/ugJDNkz.

Christy Krieg (317-432-5496) chairs this year's event, assisted by Janice Gustaferra (317-596-0977). More details are at indiananativeplants.org/gatherings/native-plant-sale-auction. 🍃



Amy Wood

Emily Wood will kick off the annual plant sale with a talk on gardening for wildlife.

Wake Up, Woods is pick for April StoryWalk® in Fishers

Hamilton East Public Library in Fishers will feature the INPS-published children's picture book *Wake Up, Woods* at the April 15 StoryWalk® event at Ritchey Woods Nature Preserve in Hamilton County. The quarter-mile hike will begin at 10 a.m. at the preserve at 10410 Hague Rd., Fishers.

The library and Fishers Parks and Recreation Dept. collaborate to offer the program at a different Fishers natural area on the third Wednesday of each month. Books chosen monthly are nature-themed and appropriate for ages six and under.

The StoryWalk® Project was started by Anne Ferguson in Vermont in 2007. 🍃

Want to donate plants?

- Dig and pot plants at least two weeks prior to the sale.
- Dig a wide root ball to avoid root damage.
- Bring only viable plants.
- If plant is an ephemeral and has faded, label it as such.
- Label with common name (and botanical name if you know it).
- Pot in potting soil rather than native soil; water well and often.
- Store in a semi-shaded area and bring to sale at designated time.

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Mission

To promote the appreciation, preservation, scientific study, and use of plants native to Indiana.

To teach people about their beauty, diversity, and importance to our environment.

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Florathon fun:

The birthday girls' adventure

By Ruth Penner

Anticipation of April and wildflowers in Indiana is an annual rite of spring, and Florathon offers an opportunity to compete in the annual hunt for wildflowers and raise money for INPS programs.

Spring of 2019 was cold and late. Our team of two had significant birthdays last year, mine in April, so we planned to celebrate with a girls' adventure. At the time, I lived in Indianapolis; my sister-in-law Linda lives in Lebanon, OH.

The weather in central Indiana being unfriendly, we headed south to Clifty Falls State Park on the Ohio River, knowing the landscape was unusual and varied, and historic Madison was nearby.

Focus on Florathon 2020

By Barbara Homoya

Want to make an impact on the environmental attitudes of today's children and have fun doing it? If you care about native plants and natural areas, here's an activity you are sure to enjoy: the 2020 INPS Florathon. The goal is to find the most blooming wildflowers in the allotted time. The contest period has been extended from last year, running from April 18 to May 31.

It's easy – find one to five others to join you (if you need help connecting, let me know), create a team name, select a day for your outing, and enlist sponsors.

Florathon donations go to the INPS Letha's Youth Outdoors Fund, which supports schools and other groups in getting kids out in the natural world.

Some tips for increasing donors are:

- Ask everyone – friends, family, co-workers, neighbors.
- Ask in person – face to face contact is usually the most successful.
- Ask other groups you are involved in if you can present the idea or write an article for their newsletter.
- Ask businesses to sponsor your team.

For a complete description, rules and forms, check out the "Gatherings" tab at www.indiananativeplants.org. You may also contact me at florathon@indiananativeplants.org with questions or for help in forming a team.

Barbara Homoya is INPS' Florathon chair.

This geologic and floral destination is only about 100 miles south of Indy, an easy drive. It was well worth the trip, with a fun adventure and an impressive list of wildflower sightings.

The hiking and scenery definitely met our expectations and the muddy trails were navigable. Everywhere were colorful views of abundant



Chris Light

common species such as larkspur (*Delphinium tricorne*), chickweed (*Stellaria pubera*) ragwort (*Packera aurea*), phlox (*Phlox paniculata*), and geranium (*Geranium maculatum*). Sadly, the view was somewhat dimmed by a parallel abundance of garlic mustard (*Alliaria petiolata*) ready to fling more seeds into the surroundings.

Special discoveries abounded also. Along the creek was a mass of blue-eyed Mary (*Collinsia verna*), while red columbine (*Aquilegia canadensis*) clung to the sides of the cliffs seeping with spring moisture. Meanwhile, white shooting star (*Dodecatheon meadia*) stood at attention. High above the falls was mountain stonecrop (*Sedum tematum*).

We found more than 50 species and our guide books were essential for identification. However, many times we longed for the wisdom of the excellent botanists of INPS. Although we did not win the Florathon contest for most species, the experience and memories are priceless.

Ruth Penner is a former member of INPS Central Chapter and now lives in Denver.

Mountain stonecrop grows high above the falls at Clifty Falls State Park.

Scholarships honor Keith Board

By Jan Hunter

At the December, 2018, North Chapter board meeting, one agenda item was how to draw younger people into the organization. It was suggested that a student scholarship would offer incentives to young people interested in the natural world. A committee was to outline recommendations to the board in the coming months.

It was during this period that we learned of the untimely death of our chapter member Keith Board on Jan. 12, 2019. (See "Keith Board" tribute in the spring, 2019, issue of *INPS Journal*.) Keith was one of the foremost botanists in the Chicago region, an accomplished artist in photography and woodworking, and a local history buff. He often mentioned that the environment would suffer in the future if we did not bring more young people into the organization.

It was decided at our February, 2019, board meeting that we would offer two scholarships to students within our nine-county region and name the annual awards the Keith Board Student Scholarships. A committee of chapter

members judges applications based on questions that indicate students' genuine interest in the environment and intent to further educate themselves in a related field. Applicants are required to also submit a letter of recommendation from a teacher. The awards consist of a one-year membership to INPS plus costs for registration, travel and lodging to the annual INPS conference.

In September, we received several applications and two excellent students were selected.

The 2019 recipients of our first North Chapter Keith Board Student Scholarships were Megan Huys from Elkhart Memorial High School and Jacob Crawford from Indiana University South Bend. Megan is an agriculture student and Future Farmers of America president. She is a STEM (Science, Technology, Engineering and Mathematics) intern for SAE International, a professional standards association. Jacob is a graduate student completing a certificate in strategic sustainable leadership. A framed

certificate was presented to each student at the INPS conference in Fort Wayne in November.

We encourage scholarship recipients to attend chapter meetings, hikes and presentations, not only to learn more about our local flora, but to connect with knowledgeable members. We hope they will become involved with developing our chapter, assisting in outreach programs, and connecting with the community. We hope the scholarship program will become a staple in environmental clubs and classes for schools in our region, while honoring the memory of Keith Board.

Jan Hunter is president of INPS North Chapter.

Chapter news West Central

West Central Chapter hosted Kevin Tunesvick, senior ecologist with Eco Logic, for his Nov. 25 talk on "Nectar Sources in Indiana Woodlands." On Jan. 27 they heard from Bob Easter, stewardship manager for Niches Land Trust, who spoke on land restoration projects. Mickey Penrod, chapter president and Advanced Master Gardener, spoke on "Native Plants for Your Space" on March 23. The April 27 meeting will be devoted to the INPS children's book *Wake Up, Woods*, with details to be announced.

West Central co-sponsors free public "Wednesdays in the Wild," a series of natural history talks, workshops and field trips, along with Tippecanoe County Parks & Recreation Dept., Sycamore Audubon Society, NICHES Land Trust, Lilly Nature Center and West Lafayette Parks & Recreation.

The chapter meets on 4th Mondays at Lilly Nature Center at Celery Bog in West Lafayette.

South Central

South Central members convened Feb. 9 at the studio of artist Gillian Harris in Bloomington for a meeting, followed by social time at Bloomingfoods East. Gillian is the illustrator of the INPS-published children's book *Wake Up, Woods*.

The chapter is participating in Weed Wrangles April 4 at Burkhart Creek Park and May 9 at Old Town Waverly Park, organized by the Morgan County Invasive Management Cooperative.



Anonymous
Jan Hunter



Top: Keith Board
Bottom: Scott Namestnik presents a Keith Board scholarship to Megan Huys, while Jan Hunter presents one to Jacob Crawford.

Chapter news

Central

Central Chapter hosted Master Naturalist Coletta Kosiba Oct. 13 at the Wayne Branch Library, where she spoke on "Wild Turkeys in Indiana."

Members held a "Fall Festival on the Farm" Nov. 16 at member Lisa Meek's Creekside Quarter Horse Farm, northeast of Noblesville. Approximately 25 members and guests enjoyed self-guided tours of native landscaping and a tour of the adjacent property where Lisa and her husband Mike planted 4,500 trees and shrubs as a riparian buffer along Stony Creek.

On Dec. 15, Dr. Candace Corson, who practices integrative medicine, repeated her class on "Healing with Native Plants." She helped participants in the sold-out session to make their own healing cream for skin conditions, using several wild plants.

Members met Jan. 12 at the home of Judith Lieberman for their annual meeting and ice-breaker. On Feb. 23 the chapter sponsored a talk at Pike Branch Library by Carrie Tauscher, DNR community and urban forestry coordinator, on "Proper Tree Planting and Maintenance Techniques." On March 29 Dawn Slack, The Nature Conservancy's director of stewardship and chair of the Indiana Invasive Species Council, spoke at the library on "The State of Invasive Species in Indiana."

Upcoming chapter events: Several at Newfields Art and Nature Park, Indianapolis, including a May 2 garlic mustard pull; a May 16 *Wake Up, Woods* hike at 10 a.m. led by Chandler Bryant, park manager, and Ben R. Hess, Cardno senior ecologist; a May "Perennial Premiere"; an August "Day of Flight"; and an October honeysuckle removal work day. Also, members will conduct a hike at Ritchey Woods in April (date to be announced), a Marion County Weed Wrangle at Eagle Creek Park April 25, multiple Weed Wrangles in Hamilton County on May 2, and a May 31 program by Carrie Tauscher on "The Scoop on Soils" at 2 p.m. at the Nora Library. The "pop-up tour" committee plans three or more garden tours in 2020, starting with a woodland tour in April.

For event details, see the chapter's website or Facebook page.

North

In 2019 North Chapter created the Keith Board Student Scholarships in memory of their late member, who died Jan. 12, 2019. (See "Scholarships honor Keith Board" at left.)

Chapter members gathered in December at the home of Michael Huft and Charlotte Gyllenhaal for the annual potluck dinner and elections. A feature of these potlucks is the sharing of photos of native plants. Scott Namestnik shared highlights of his new position as DNR state botanist. Pete Grube loaned Michael a DVD of Indiana orchids, which was viewed. Michael and Charlotte shared an interesting variety of photos of plants native to California.


Executive board elections took place in December. Jan Hunter continues as president, Cookie Ferguson as vice-president and Scott Namestnik as treasurer.

North Chapter members participated in the Second Annual Michiana Regional Seed Swap Jan. 18 at Goshen College. On Jan. 25 they had a table at the 16th Annual Porter County Master Gardener's Gardening Show at Porter County Exposition Center. On Feb. 16 they met at the ETHOS Innovation Center in Elkhart for a membership meeting and program. Speaker for the program was DNR invasive plant biologist Eric Biddinger. In March members participated in the Second Annual Michiana Master Gardener's Garden Expo at the Northern Indiana Event Center.

Northeast

Nate Simons, executive director of Blue Heron Ministries, shared his knowledge of prescribed prairie burning with members on Jan. 30 at Rieke Park Lodge, Auburn. Such burns mimic the lightning strikes and native American burns of the past that are critical to sustaining healthy prairie ecosystems.

Members joined Little River Wetlands Project (LRWP) in observing World Wetlands Day Feb. 1 in Fort Wayne with a day of family activities, educational sessions and hikes. Chapter members demonstrated propagation of wetland plant species in a seed-starting workshop.

Beth Ricketts led a Feb. 15 wetland hike, cosponsored by LRWP, at Eagle Marsh Nature Preserve, Fort Wayne. 



April 22 will mark the 50th annual Earth Day with the slogan "Climate Action." The official website is www.earthday.org/earth-day-2020.

The Putnam County Public Library plans to celebrate with a series featuring presentations by INPS' Central Chapter members Kit Newkirk (April 15), John Garner (April 29) and Mike Homoya (May 6). Look for more information at www/PCPL21.org.

Naturally Native Nursery

by Jan Hunter

Naturally Native Nursery in South Bend began in 2002 as a retail and wholesale nursery. I had worked in restoration for The Nature Conservancy and as a firefighter at Indiana Dunes National Lakeshore. At the time we started the business I was stewardship director at Shirley Heinze Land Trust. My partner was good with bookkeeping, finance and banking. We sold plants at our nursery and attended farmer's markets, festivals and fairs in order to spread the good news of native plants.

Our biggest selling plants are butterfly weed (*Asclepias tuberosa*) and cardinal flower (*Lobelia cardinalis*). These two beautiful plants are well-

behaved in smaller spaces like yards and gardens. Butterfly weed grows well in different soils, moisture and varying sunshine. Their vivid orange blooms attract butterflies and other pollinators and are a host plant for the monarch butterfly. Cardinal flower's beacon of red

draws in hummingbirds like crazy! It is generally well-behaved in a garden with enough moisture to sustain it. Other popular sellers are *Coreopsis* spp., various asters (*Symphyotrichum* spp.), *Eurybia macrophylla*, *Doellingeria umbellata* and woodland plants like wild ginger (*Asarum canadense*), large-flowered white trillium (*Trillium grandiflorum*) and wild columbine (*Aquilegia canadensis*).

Horsemint (*Monarda punctata*) has to be my favorite. Up close, sitting on the ground, holding a magnifying glass to observe a random pollinator is mesmerizing. The flowers encircling the stem look like orchids.

Many people feel that our native flora belongs only in natural areas, roadsides and fields, not in their back yards. This is not true. Native plants are no more aggressive or messy than cultivated or exotic plants. A well-maintained native garden is a thing of beauty, attracting butterflies, sheltering bees, inviting birds to feast on berries and seeds, and beckoning people to enter.

We started out to be a sustainable company, providing a variety of native plants over the years

for home landscapes. We have provided plants to several states, scores of schools, several large corporations and governmental properties, and many home gardens.

We also monitor monarchs for the Monarch Larva Monitoring Project of the University of Minnesota and Journey North, a program of the University of Wisconsin-Madison. We are registered as a Monarch Waystation (part of Monarch Watch) and tag and test monarchs for disease. We are a Certified Wildlife Habitat, part of the National Pollinator Garden Network, a Xerces Society pollinator site and a Certified Butterfly Garden from Wild Ones. We give presentations to garden clubs, church groups, community centers and school children. Many of our gatherings feature giveaways of plants or seeds.

Naturally Native Nursery, 20525 Johnson Rd., South Bend, 46614, can be reached at 419-833-2020 or nnn@naturallynative.net. The website is www.naturallynative.net.

Jan Hunter is owner of Naturally Native Nursery and president of INPS North Chapter.

Grow
Indiana
Natives



The yard at Naturally Native Nursery is filled with native pollinator plants.

Is your yard bee-friendly?

Purdue Extension and Sunnyside Master Gardeners of Floyd County offer these tips for making your yard a healthy and safe habitat for native pollinators, including bees, butterflies, moths, hummingbirds and other species.

- Use pesticides and herbicides sparingly and only as a last resort.
- Don't buy plants treated with systemic pesticides such as neonicotinoids.
- Choose plants with different flower colors, shapes, bloom times, heights and textures.
- Plant for continuous bloom from early spring till frost, with three species in bloom at any given time.
- Use masses of color to attract pollinators.
- In small areas, plant single species together to increase pollinators' foraging efficiency.
- Replace exotic plants with natives, which are better food sources for native insects.
- Provide patches of bare soil, untilled or unmowed areas, leaf litter, brush piles or logs.



Jan Hunter

Grants help environment, education

By Alicia Douglass

2019 grants

The winter, 2019/20, edition of *INPS Journal* featured the Loblolly prairie restoration conducted by Friends of the Limberlost that was funded in part by an INPS biodiversity grant of \$1,000. This was one of four great projects that received INPS biodiversity grants last year.

Bloomington High School North environmental students cleared invasive species from two areas totaling 700 square meters (over 9,000 square yards) in the forest preserve on school property. Students germinated seeds and planted nearly 1,000 native plants in the areas cleared of invasives, as well as in a newly established pollinator garden at the school. The \$1,500 INPS grant was used to purchase seeds, tools and supplies.

An INPS grant of \$1,500 to Tippecanoe County Parks and Recreation Dept. enabled the purchase of a native pollinator seed mix that was planted on eight acres at the Tippecanoe County Amphitheater property in West Lafayette. The field was previously planted in winter wheat. Annual weeds were treated with herbicide in spring prior to the planting of native seed with a no-till drill in June. Two mowings and selective weed treatment were done after planting. Educational signs that carry the INPS logo are planned for placement at the site this year as the planting matures.

A \$1,500 INPS grant was awarded to support installation of two signs for the Indiana Native Tree Arboretum and the Prairie Patch at the Indiana Medical History Museum in Indianapolis.

2020 grants

INPS has approved grants for four projects to be completed during 2020. Purdue University student Isabelle Turner was awarded \$800 for supplies in a study that will look at how native plant seed origins affect seeding performance. NICHES Land Trust is a partner in the study, providing seed from local remnant prairie populations for royal catchfly (*Silene regia*), wild bergamot (*Monarda fistulosa*) and tall thimbleweed (*Anemone virginiana*). Part of the experimental trials will be conducted on NICHES property.

A joint project of Monon Farms Home Owners Assn. and the Carmel Adopt-a-Park Program was awarded \$900 to purchase native shrubs to be planted along part of the Monon Greenway in Indianapolis.



Angie Shelton

Approximately 250 volunteer hours have been logged so far removing bush honeysuckle in this location.

Unitarian Universalist Congregation of Fort Wayne was awarded \$870 for plants and supplies for a demonstration garden. The congregation intends to register the garden as a National Wildlife Federation "Sacred Grounds" project.

STRIVE Worldwide, Inc., was awarded \$1,500 to install a native plant demonstration garden as part of the Union Chapel United Methodist Church public greenspace in Indianapolis. The greenspace, a portion of the church's five-acre property, will feature native plants, community gardens and educational and recreational opportunities.

If you know an Indiana native plant project that would benefit from an INPS biodiversity grant, check out grant guidelines at indiananativeplants.org/biodiversity-grants. New applications will be accepted from Sept. 1 to Oct. 1, 2020.

Alicia Douglass is INPS biodiversity grants chair.



Kathleen Hill

Top: Native Prairie Patch sign installed at Indiana Medical History Museum, Indianapolis

Above: Native plant plugs grown from seed and planted by students at Bloomington High School North

Jan.-Dec. 2019

INPS revenue & expenses report

By Don Gorney

The 2019 financial statements reflect only state-level operations and do not include any chapter financial information.

The financial position of Indiana Native Plant Society remains strong. During 2019, revenue exceeded expense by \$13,143. The surplus is similar in amount to 2018 results. At year-end 2019, the organization had liquid cash assets of \$110,639 and no liabilities. However, \$14,000 is restricted to fund Letha's Fund grants.

Don Gorney is treasurer of INPS.

Statement of Financial Activities Fiscal Year 2019

Income

Membership	
Gross Membership Dues	33,609
Dues Transfer to Chapters	-5,509
<u>Total Membership</u>	<u>28,100</u>
Donations	6,787
Plant Sale	14,391
Annual Conference Income	37,695
Trips/Tours	15,350
Interest Income	61
Grow Indiana Natives	1,400
Misc Income	684
Children's Book	7,634
<u>Letha's Fund Donations</u>	<u>5,167</u>
Income/Gross Profit	117,267

Expense

Legal Fees	484
Credit Card Proc. Fees	589
Network for Good - Monthly Fee	473
Publications/Brochures	5,932
Insurance - General Liability	2,029
D&O Insurance	1,217
Membership Expense	1,893
Journal Expense	9,707
Other Postage	491
Website Expense	4,606
Technology Expense	1,972
External Grants	6,500
Plant Sale Expense	1,713
Annual Conference Expense	34,413
Trips & Tours	13,586
Children's Book Project	11,387
Grow IN Natives	2,340
Letha's Fund Distributions	4,156
Donations to Others	504
Misc. Expenses	132
Total Expense	104,124
Net Income	13,144

INPS Balance Sheet - State Only December 31, 2019


Assets

Checking	4,796
<u>Money Market</u>	<u>105,843</u>
Total Assets	110,639

Letha's Fund grants approved

INPS approved seven Letha's Youth Outdoors grants in fall, 2019, totaling \$4,128, to schools in five counties. Funds are distributed upon completion of the programs.

Applicant	County	Trip location	Approved
Goshen High School	Elkhart	Merry Lea Environmental Learning Ctr	\$490
Penn High School	St. Joseph	Ind. Dunes W. Beach Succession Trail	\$636
Bloomington HS North	Monroe	Six stream locations, Monroe County	\$630
Chandler Elementary	Elkhart	Amigo Centre, Sturgis, MI	\$700
Wm McKinley School 39	Marion	Eagle Creek Park, Indianapolis	\$272
Stephen Decatur Elem.	Marion	Moore Road Farm, STEM Connection	\$700
Westwood Elem., Greenwood	Johnson	Camp Tecumseh, Brookston, IN	\$700

Applications are considered at any time throughout the year. Angela Sturdevant, Letha's Fund chair, advises INPS members, "If you know of a teacher or youth organization leader who may be interested in applying, please refer them to indiananativeplants.org/education/letha." 

Start snapping!

Photo contest

By Lee Casebere

Deadline to submit photos: Aug. 31, 2020
INPS held its first photo contest in 2019. The premise for the contest was to establish a reserve of good photos for use on the website, brochures and other promotional materials. First, second and third place cash prizes were established in two categories, Native Plant Portraits and Native Landscape Scenes. (See the winter 2019-2020 issue of *INPS Journal*). This year we hope for even more high-quality entries.

We did not receive as many entries as expected in 2019. One possible reason is that only INPS members could enter. *So this year the contest will be open to both members and non-members.*

Of the two categories, we had better participation in Native Plant Portraits, but hope for more this year. We would especially like more entries in the Native Landscape Scenes category to show what is possible with natives in landscaped settings. This category is not meant for photos of natural communities, but for photos of natives in man-made settings. They may range from intimate patio settings to expansive prairie or wetland restorations. Human-related evidence (pathways, fences, fountains, rock features) is encouraged. These scenes do *not* have to show only native plants, but considerable use of natives is expected.

Some entries in the 2019 contest lacked crisp focus. A few were of prize-winning caliber in all ways except sharpness. There is a standard in animal photography that if overall sharpness is not possible, at the very least the animal's eyes must be sharp. Although plants don't have eyes, something in a plant photo needs to be in focus. In close-up plant portraits, it's best to focus on pistil and/or stamens. In broader perspective shots, it would be unacceptable for the stem to be in focus if the flowers are not. Shutter speed should be high enough to stop blurring.

Rules for the 2020 contest are at <https://indiananativeplants.org/native-plants/inps-photo-contest>. Check out the rules and start taking those contest-worthy shots!

Lee Casebere is INPS photo contest chair and a member of Central Chapter.

Volunteer profile

Judy Houser

By Cindy Monnier

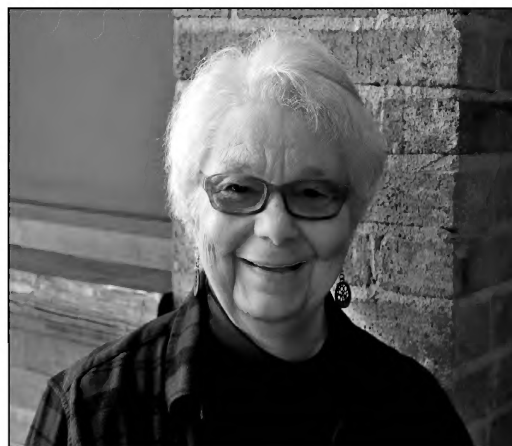
Although Judy Houser has been a Central Chapter INPS member since 2008, I only met her last March when she volunteered to help write thank-you notes to donors.

I could tell immediately that she was very organized and used to getting things done. A native of Indianapolis, Judy retired after 46 years from long-term accounting and administrative positions at P. R. Mallory and Co. and Simon Property Group, among others. After retiring in 2006, she enrolled in a Master Gardener class, followed by stints of gardening with Eagle Creek volunteers and at Cold Spring School with Wendy Ford. Then she began helping with INPS membership support, garden tours (including her own in 2017), many Central Chapter invasives SWAT Team events with Tom Hohman, with Central Indiana Land Trust, and with Brenda Howard, land steward at Eagle Creek, plus serving as Indiana Organic Gardeners secretary and newsletter editor.

To keep up with the latest initiatives, Judy now attends meetings of the Cooperative Invasive Species Management Area (CISMA) led by Dawn Slack. In her spare time, Judy is president of Decatur Garden Friends and is taking Master Naturalist classes.

Judy has been a delight to work with, a gracious dynamo, making significant contributions to the conservation movement in central Indiana.

Cindy Monnier is INPS membership chair and a member of Central Chapter.



Cindy Monnier

“April is the kindest month. April gets you out of your head and out working in the garden.”

- Marty Rubin



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Let's go hiking!

DNR's Division of Nature Preserves will offer several guided field day hikes this year, sponsored by INPS. Participation is free but limited, and registration is required at www.in.gov/dnr/naturepreserve. Hikes begin at 10 a.m. and last two hours, unless otherwise noted.

<u>Date</u>	<u>Site</u>	<u>County</u>	<u>Partner</u>
Apr. 25	Ogle Hollow Nature Preserve	Brown	INPS/DNR State Parks
May 2	Calli Nature Preserve	Jennings	INPS/Jennings Community Foundation
May 2	Blue Cast Springs NP	Allen	INPS/ACRES Land Trust
May 16	Bluffs of Beaver Bend (12:00 pm)	Martin	INPS
May 30	Perfect Lake Nature Preserve	Steuben	INPS/ACRES Land Trust
June 6	Moraine Addition Nature Preserve	Porter	INPS/Lake Michigan Coastal Pgm
Sept. 19	McCloskey's Burr Oak Savanna	Lake	INPS/Shirley Heinze Land Trust
Sept. 26	Elkhart Bog	Elkhart	INPS