

IMNature The newsletter for IMN hosts and certified graduates

2023 Fall Edition



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Naturally inclined.....

..... a note from the State Council President.

Years ago, when I was living in Illinois, I was befriended by a woman at the church I was attending. I had recently been divorced and, for some reason, she decided she needed to become “my aunt”. Whenever she saw me, she would stop me and ask: how I was doing, about my daughter, family members that lived out of state and other things—sometimes just to make conversation. Occasionally, she would invite me to her home for lunch, or dinner, and more conversations. Gradually, over the years, our roles reversed, and I began checking on her; when I went to her home, I would take something for our lunch or dinner. Just inside her front door, she had a barometer hanging on the wall, and each time I visited her, I adjusted the setting. It seemed it always needed

adjusting, and she joked how I was the only one that ever paid any attention to it.

When a job change caused me to move to a suburb about an hour away, my visits became less regular. Sadly, one day I learned she had passed away unexpectedly. Several months later, I received a call from the executor of her estate, informing me that she had bequeathed that barometer to me. The executor told me he had received implicit instructions to personally give the barometer to me. While I certainly enjoyed receiving it, I was touched to be remembered in that manner.

Since that time, the barometer has always been in a prominent location in my home. I walk past it several times a day and check it when I do. One evening, while listening to the weather report, I realized that the reading on my barometer was significantly different than what had just been reported for our area. I wondered if it was broken, so I decided to learn a little more about barometers. I knew they were considered a scientific instrument used to forecast the weather, but that was about it.

The word barometer is from the Greek language, baro- meaning weight, and meter- meaning measure. There are a variety of types: one consisting of a vertical tube sitting in a mercury filled basin, a Goethe sphere, one that uses a water filled glass tube, and one, like mine, that uses a collapsible air chamber. The mercury barometer, the earliest type, was invented in 1643 by Evangelista Torricelli, (a student of Galileo). It’s a relatively simple device: the air pressure pushes down on a pool of mercury, which then forces some of the mercury up a tube. The more pressure, the higher the column of mercury. Due to its weight and density, mercury is an excellent fluid to use. Mercury barometers are precise instruments, but can also be expensive and challenging to relocate.



The Goethe sphere and the water filled tube, (often referred to as a weather glass), can frequently liquid, this style tends to be less accurate, and not able to offer the precise results needed to forecast the weather. They are better suited to give a “general idea” of approaching weather patterns.

A barometer, like the one I have, is called an aneroid (meaning without liquid), barometer. Aneroid barometers use a sealed, flexible-walled chamber containing air, which expands or collapses depending on the pressure around it. A pointing device, connected to the chamber by a lever mechanism indicates the pressure reading on a dial. Aneroid barometers are relatively inexpensive, (compared to the ones using mercury), and can be quite accurate. Due to their size, they are often used in portable instruments. I learned that there is a small screw on the back of the barometer, and by adjusting the screw one way or the other, I could correctly set the reading. A quick check of the barometric pressure that day, a slight twist of the screw, and my barometer was providing accurate readings.

Barometric pressure, also known as atmospheric pressure, is an indicator for weather patterns. It is the measurement of air pressure in the atmosphere, actually the weight of air molecules, and pressure is related to the density of air molecules: the more molecules, the more pressure. Barometric pressure changes constantly and is usually different depending on where the reading is taken, especially at higher elevations, where there are fewer molecules than at sea level. High pressure areas are associated with warmer, drier air, and fair weather—the denser air “pushes away” moisture laden clouds, bringing clear skies. Low pressure systems are associated with cooler temperatures, rain/snow, and storms—the lack of pressure allows the air to move upward, forming clouds that can block the sun and produce rain, or snow. So, the weather actually changes with the changes in barometric pressure.

One morning earlier in the week, I noticed a drop in the barometric pressure, and later that afternoon, it rained. Today, the pressure reading went up a little, and as I write, the skies are clearing. While having a barometer does not make me a weather expert, I certainly enjoy having mine; and it is a valued reminder of “my aunt” who gave it to me.

Chuck

A Brand New Junior IMN Program

By Rachel Felling, Naturalist, Zionsville Parks & Recreation



During the first week of August, and the last week of our summer camp season, Zionsville Nature Center hosted our first ever Junior Master Naturalist program. We enrolled 20 kids, ages 9-12, from the local community and formatted the program as a week-long day camp. Each day focused on different topics of Indiana natural history and involved time for the participants to earn their requirement of six volunteer hours. Upon completion of the week, participants were officially recognized as Junior Indiana Master Naturalists!

We covered many different natural history topics, including birds, fish, aquatic ecology, invasive plants, and more. Some topics were taught by our Zionsville Parks & Recreation staff, and some were taught by local experts like Mark Booth of Take

Flight Wildlife Education and Clint Kowalik of Go Fishin' With Clint. Our program was generously sponsored by our local Zionsville Optimist Club, which allowed us to bring in these guest speakers and provide fun take-home resources like binoculars and field guides, while also keeping our prices reasonable for participants.

One of the challenges of the program was figuring out how to make sure our participants earned their volunteer hours. Finding age-appropriate volunteer opportunities for kids can sometimes be difficult. The kids completed some of their time by helping collect data for the citizen science program, Hoosier Riverwatch. They also spent time working with our Maintenance team to safely remove invasive honeysuckle from one of our parks. Their main volunteer project, however, was to create a field guide for Eagle Creek, which runs through the middle of Zionsville and through many of our parks, for use as a community resource. Zionsville Nature Center is located within our local library, who allowed us to borrow laptops for the participants to use in making the field guide. Students worked in small groups to research different areas of study related to Eagle Creek (like plants, fish, water quality, and more) and then designed their section of the field guide. Our staff and volunteers helped students with some basic design and proofreading, but the kids took ownership over the research and content. We were so impressed with how well they pulled together information and designed their sections, especially with only a few hours of work! Each group presented their work to the whole class at the end of the session, and then our staff compiled their pages into the field guide document and published it on our website for the community to view and use. Here's a link to view the field guide created by the Junior IMNs:

https://issuu.com/townofzionsville/docs/eagle_creek_field_guide_-_jr_imn?fbclid=IwAR23G6OKlRYGTv0vPgkC6rEviChOkkftJPzruCIHlo6EvibmGtJboEu19PM

Overall, our first Junior IMN program was fun and successful! Our participants had a great time and we received nothing but positive feedback from their parents and guardians. We plan to offer the program again next summer in the same format of a week-long camp experience. We will likely keep some of their favorite activities the same (they loved meeting live birds of prey and assessing the water quality of Eagle Creek!), while also incorporating new topics, activities, and speakers. We hope it will be as well-received next year and look forward to another class of Junior Indiana Master Naturalists!

Project Wingspan

By Andy Grinstead

Project Wingspan is seeking volunteer and landowner collaboration throughout Indiana. The [Project Wingspan](#) program engages volunteers to visit parks, natural areas, or to go out into their own private properties to collect ecotypic native seed, which will be cleaned and redistributed to high quality restoration projects in the same region the seed was collected; all in an effort to increase the quality, quantity, and connectivity of vital pollinator habitat. Project Wingspan provides [free training and educational resources](#) to all volunteers, including those who may not want to go outside for the field activities. We would love to



help you or a group host a seed collection event in your community and find new ways to explore fantastic local natural resources.

If you are interested in joining Project Wingspan, please contact Andy Grinstead (andy@pollinator.org) for additional information.

A more in-depth article about Project Wingspan will be in the Spring 2024 IMN Newsletter.

Close Encounter with a Monarch

By Jim Carpenter, Elkhart County AIMN

I usually try to help a few Monarch caterpillars survive to adulthood by keeping them in a large plastic container with an abundant supply of food as they make the transition to becoming a butterfly. I have had the opportunity to do that successfully with several caterpillars this year.

It is a unique opportunity to have a newly emerged Monarch sit contentedly on your finger as they pump blood from their body into their wings in preparation for the next part of their journey in life. I think anytime you observe nature up close it becomes more real and personal. That is one reason I love to pass around natural artifacts to young children when I have the opportunity.



I recently had the privilege of having a newly emerged Monarch climb onto my finger while it was working its wings to dry them out and get the blood flowing. I sat down and observed this beautiful creature firsthand for a period of time. My impatience took over as I realized I did not know how long it would be before the butterfly would be ready to fly away and I was planning on going back to the woods for a bit.

It was a very breezy day, so I decided to put him (I did identify it as a male) in my Nature Shack with the door propped open. As I prepared to set him down, I picked up a nearby magnifying glass and had an even closer encounter with this magnificent insect. The vivid orange and black patterns on my little friend were even more spectacular close. I then placed him gently on a mammal skull (raccoon, I think) near the open door of my shack so he could fly away whenever he was ready.

I forgot about the Monarch until I returned from the woods about an hour and a half later and then went to see if he was still there. As I came up to the shack, I saw him on the grass just in front of the open door. As I approached, he flew up and seemed to fly around me as if he had been waiting to say good-bye. After this brief interaction he proceeded to fly up into the air and off he went.

Anthropomorphism is when we ascribe human qualities to objects that are not human. I suppose this is exactly what I did with the butterfly, thinking he waited until I came back from the woods to tell me goodbye. The fact is it was more likely just coincidence that he waited until I approached to fly up to me and then up into the sky.

I think it is exactly this type of interaction with nature that enriches our lives and leaves us in awe of the mystery that surrounds us in our natural environment. Interacting with nature on a personal level can leave us with a sense of spiritual satisfaction that adds to our everyday journey in life.

And who doesn't need more of that?

A Testimonial for the Pokagon IMN Program

Sometimes we take for granted the value of the IMN program, but this note, received by IMN host Aimee Wentworth, is a reminder of the joy that a solid program can bring:

“I really can't even explain how much I loved our IMN class - and how it awakened so many new adventures and passions for me. My husband and I spend so much time outdoors—hiking and camping and volunteering. And leading group hikes. Bird watching. Foraging. All sorts of stuff. And it was the knowledge and the excitement from our class that really springboarded everything. It's taken over my life—but like in the best way. It's come to the point that all my friends and family come to me to identify plants and birds and bugs for them. Half of them call me nature boy. LOL. My family and friends who have kids in Scouts groups have Mike and I lead educational hikes for their troops.

This has been a magical journey. I'm learning so much - and so fast! My current hyperfixation is snake ID. I'm still pretty bad at it, but I'm learning so much!

When I talk to friends who have taken IMN classes, they always say they're jealous of our class, when I describe how much fun it was. We had a good group, and a good chemistry together.

Looking forward to the alumni group! I'm super hoping that it works out for me to attend the first meeting!”

-Curtis Liberalis

News from the Indiana DNR

Fall Fun and Halloween. An assortment of events are happening at DNR properties throughout October. These include campsite decorating, pumpkin decorating, costume contests and a variety of other events. You can come for one activity, stay for a day, or spend the entire weekend at most events. For details regarding a fall or Halloween event near you, or one that's well worth a road trip, visit the DNR Calendar at calendar.dnr.IN.gov.

Sandhill cranes begin fall migration at Jasper-Pulaski FWA. Sandhill cranes can be seen at [Jasper-Pulaski Fish & Wildlife Area](#) from late September through December. Crane numbers peak in mid-November. The best time to view is sunrise from the Goose Pasture viewing area.

An Adventure in the Rain

By Elma Chapman

The Indiana Department of Natural Resources conducted a free guided hike on Saturday, July 15, at Pisgah Marsh Nature Preserve near North Webster, IN, at the intersection of Noble, Whitley and Kosciusko counties. It has been a DNR property for a while but was designated as a nature preserve in 2017. It has a very diverse topography of oak uplands, sedge meadows, marshes, fens, and a small lake. The best way to see a little of all of it is to take the boardwalk which is only a half-mile long and is ADA accessible. The boardwalk is built on an esker, a glacial feature formed by streams that ran through the glaciers and deposited rocks and gravel along their route. The boardwalk ends by the beaver dam which forms Pisgah Lake and then you walk back on the same boardwalk.



It was a rainy morning, and I was sure we'd be the only ones to show up, but I was wrong. There was a group of about 12-15 people dressed in raincoats and hiking boots or muck boots to explore this property with the two guides from the DNR. The preserve is a 118-acre property and is part of the larger Pisgah Marsh Fish and Wildlife Area. From State Road 5, look for a brown and yellow DNR sign for Pisgah Marsh then turn west off SR5 onto a gravel road. The first parking area you come to is quite small and says "Foot traffic only in this area." Not much farther down the road there's a sign that says "Road closed. Flood danger." This sign is quite disconcerting, particularly on a rainy day, but just before the end of the road as you search for a place to turn around, there is suddenly a paved road leading to a larger parking area and the boardwalk.

According to the Indiana Natural Resources Commission, the preserve provides habitat for a number of state-endangered wildlife species, including Blanding's turtle, spotted turtle, Virginia rail, sedge wren and least bittern. Massasauga rattlesnakes can also be found there and are also endangered in our state. However, they are mostly shy creatures and try to avoid contact with humans, unless you step on one of them. One of the participants in our walk was quite disappointed because he was hoping to see one. According to Tina Flanigan with the DNR, the most likely time to see them is when they first emerge from their hibernaculum, that is, a den where they spend the winter in large groups. According to her, they like to sun themselves on the top of the beaver dam after a long winter of inactivity.



Pisgah Marsh is also listed in the Indiana Birding Trail guide (www.indianabirdingtrail.com):

"Waterfowl tend to begin showing up at Pisgah Marsh as soon as ice-out occurs. Sandhill Cranes and Wild Turkey are common nesting species and observed in all seasons. Most of the ducks are dabblers in Pisgah Unit 1 viewed off the Boardwalk or a short trail that extends west where the entrance road ends. However, large numbers of Ring-necked Ducks, a few Lesser Scaup and a few Herons and grebes have staged during both migrations in the large pond north of the west side (350 N) entrance road (to Durham

Lake Unit). The particularly best reason to visit Pisgah is to look for marsh species that are hard to find in NE Indiana, such as Common Gallinule (probable nesting), Soras, Green Heron, Virginia Rail (a few nest annually), American Coot (may nest), and Black-billed Cuckoo (usually heard calling across from the Boardwalk).” Also, it notes that both Purple Finch and Pine Siskin have been recorded. Rarities have included Cackling Goose, Trumpeter Swan, Long-eared Owl and Common Redpoll. A further note is made that U.S. Highway 30, just five miles south of there is considered to be the dividing line between the Black-capped and Carolina Chickadees, the black-capped variety being more northerly.

Because this is a nature preserve, everything is protected and there is no hunting or fishing; however, the adjoining area owned by the DNR does permit hunting and fishing.

Along the boardwalk there are numerous benches for resting or observing and covered areas to protect walkers from rain. There are also several large boards that talk about the water cycle, the importance of



wetlands, and the wildlife you might see. And if you can’t get there in person, there’s even a YouTube video that takes you the full length of the boardwalk and back. It was filmed in the spring, so it looks a lot different from how we saw it, but it still is worth a look. The videographer also got some great pictures of a pair of Sandhill cranes doing a mating dance. However, be aware that the first 5 minutes of the video are not the boardwalk, but rather the area beyond the road closed sign.

The Indiana Master Naturalist program is sponsored by the Resource Conservation & Development Councils, Indiana Soil & Water Conservation Districts, Purdue Cooperative Extension Service and Indiana Department of Natural Resources. www.indianamasternaturalist.org

Want to promote your alumni group, highlight a volunteer, or tell about your favorite experience with nature? Have an article and/or pictures you would like to submit? Or does your organization need volunteers? Let us know by contacting chapman_ej@yahoo.com

Deadline for submissions for the **Winter edition** will be **December 15**.

Submitted articles may be awarded volunteer hours!



Extension



The mission of the Indiana Master Naturalist program is to bring together natural resource specialists with adult learners to foster an understanding of Indiana’s plants, water, soils and wildlife, and promote natural resource volunteer service within the State of Indiana