

# Pennsylvania Wildlife

SUMMER 2023

IN THIS ISSUE:

## Sharing the Experience

Do's and DON'Ts of Hunting  
Wild Mushrooms

Soaring Eagle Wetland's Water Birds

Pennsylvania's At-Risk Wildlife

and more!





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*Cover photo: Woodcock Hunting by Tim Flanigan. Tim Flanigan is a writer, photographer, naturalists,  
and a retired Pennsylvania Wildlife Conservation Officer. He is the author of the book; GROUSE &  
WOODCOCK – THE BIRDS OF MY LIFE, published by Wild River Press and he delights in sharing the  
fascinating life histories of these intrinsically wild and elusive game birds.*

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# Wetlands Update

by Mark Nale

**W**ildlife for Everyone's properties—the Soaring Eagle Wetlands and the nearby Dreibelbis Birding Area—have seen heavy use so far in 2023. Both areas have been visited by many birders, and Bald Eagle Creek as it flows through WFE Soaring Eagle property has received a lot of fishing pressure. This includes people with walkers and wheelchairs using our ADA accessible trail and fishing platform. Many others use the mowed trails to just enjoy nature or walk their dogs.

The Dreibelbis Birding Area remains one of the top birding spots in Centre County. Visitors regularly see or hear swamp sparrows, willow flycatchers, red-winged blackbirds, tree swallows, yellow warblers and many others. Activity increased this spring as birders flocked to see a pair of common gallinules, as well as several Virginia rails, and soras. The gallinules arrived appropriately on Earth Day. Will English's Eagle Scout trail, completed last fall, allowed people to easily see or hear the Virginia rails and the gallinules.

Beavers were a welcome addition to the wetlands at the Dreibelbis Birding Area. They raised the water level and delighted visitors with their presence. However, beavers often create a challenge with their welcome. The increased water levels flooded a neighbor's property and the beavers cut down some of the neighbor's fruit trees. Unfortunately, this resulted in the beavers being trapped and relocated to a safer location.

While individual use of the wetlands is up, Wetlands Committee members have been busy providing organized tours to interested groups. Last summer, Margaret Brittingham led a tour of both wetlands for Leadership Centre County.

May 2023 was a big month for tours. Members of the Juniata Valley Audubon Society toured the wetlands on May 13. A guided tour was held for the Pennsylvania Outdoor Writers Association on May 19. Several members toured both wetlands and several others chose to fish for trout on the area's only Keystone Select Stocked trout stream as it flows through Wildlife for Everyone property. POWA



Members of the Juniata Valley Audubon Society toured the wetlands in May.



members Alex and JoAnne Zidock filmed a segment about the wetlands for their "Out in the Open" TV program.

The Pennsylvania Society for Ornithology held their 2023 conference in State College and two wetland tours were part of their conference offerings. Joe Gyekis and Nash Turley led a tour for ten PSO members on May 20. Gyekis and this writer led a second tour for PSO members on May 21. Tour participants have provided many favorable comments, and some pledged to return again.

Three trustees—Patrick Morse, Jennifer Shuey and Dan Crust—of the nonprofit State College based Hamer Foundation, were given a tour of the wetlands on June 2. The Hamer Foundation has been a major contributor to our work at the wetlands. The tour gave them a chance to see the results of their contributions. During the tour, they announced their continued support with another grant to help fund the next phase of development at Soaring Eagle Wetlands.

Looking ahead—Centred Outdoors, an effort of the ClearWater Conservancy, has wetland tours planned for July 23 and 27. We on the Wetlands Committee believe that the more people who experience our wetlands, the more support we will get for the improvements that we are making. 🌿

# The *DO's* and *DON'Ts* of Hunting Wild Mushrooms

by Michael Kensinger

**W**hen it comes to hunting wild mushrooms, Pennsylvania is one of the best places in the world to forage. Our climate allows for edible fungi to appear year-round, offering both nutritional and medicinal benefits. While many of our table-friendly fungi come to fruition in the late summer and early autumn, worthwhile fungal foraging can be found year-round in the keystone state.

From the delectable morel mushroom to the chunky chicken of the woods, to the golden chanterelles to the black trumpets there is no shortage of delicious edible wild mushrooms to hunt for. Despite being tasty, however, each mushroom comes with a list of risks including look-a-likes and potential contamination from the surrounding environment. Here is a beginner's list of the "Do's and Don'ts" of hunting these delectable fungi.

**DO** buy a field guide to mushroom identification and learn how to use it. Field guides are a great way to learn the identifying features of edible species, and perhaps more importantly, toxic species. There is an array of books available, and I suggest buying several to keep at home and carry in the field. Be aware that many field guides are based on location, so be sure your choices feature mushrooms of the northeast, or your given region if you are not from Pennsylvania.

**DO** buy a field guide to identify trees. Believe it or not, a successful mushroom hunt depends a lot on your ability to identify specific trees as many mushrooms are in a symbiotic relationship with a particular tree species. For example, for morel mushrooms I seek out elm, ash, cherry, and tulip trees. Keep in mind that





bark identification is important for morel hunting since some trees are just leafing out when the season begins. For late summer and early fall mushrooms, the oak trees are your best friends as chicken of the woods, chanterelles, black trumpets and maitake mushrooms are all found in conjunction with oak.

**DO** learn the land you will be hunting. Be aware of the terrain, property lines and potential hazards. You can also scout for specific tree species that play host to your fungi.

**DO** bring water and a healthy snack. This is important if you are hunting in remote regions, or plan to be out all day. Hunting ridges and valleys can tire you



Michael Kensinger

quickly, so you need to take care of yourself and replenish your energy as needed. Sometimes when you really cover terrain, you can quickly exhaust yourself before making the long trip back to your car.

**DO** wear tick repellent. If you do not, it is possible you will spend more time picking ticks off your clothing than picking morels from the forest floor.

**DO** bring a knife to cut your mushrooms, rather than pulling them out of the soil. It will save you a lot of time when you need to clean your mushrooms for the skillet. Otherwise, you'll have clumps of soil in your mushroom bag.

**DO** join your local mushroom hunting club. There are several active mushroom hunting clubs throughout the state, and I highly recommend joining the one nearest you. A few examples include Western PA Mushroom Club, Central PA Mushroom Club, and The Susquehanna Mycological Society. All of these organizations have websites for more information on how to join.

**DON'T** use questionable Internet sources as a primary guide. Remember that anyone can post online, and their information or photos may be inaccurate.

**DON'T** consume an edible mushroom if it is located near railroad tracks or other chemically treated areas. This includes near roadways, powerlines, active apple orchards

and developed areas. Mushrooms often act as sponges and siphon the toxins from the soil. Some of these chemicals may stay in the soil for a century, so it is best to avoid these areas.

**DON'T** consume uncooked wild edible mushrooms. Even the most delicious wild mushrooms contain small amounts of toxins that can result in gastrointestinal distress if consumed raw.

**DON'T** eat a large portion your first time consuming a wild mushroom. Even once properly identified, just sauté one mushroom and sample it. Make sure you personally are not allergic to that specific species, because even edible mushrooms can cause a reaction. Some people have a reaction to eating morels.

As you can see, the number one thing to consider with mushroom hunting is safety. When in doubt, throw it out! Or better yet if you aren't 100 percent sure, don't pick it at all.

Mushroom hunting is a great way to make memories with friends and family. By taking the time to educate yourself on proper mushroom identification, you too can enjoy one of the most fruitful outdoor recreations our state has to offer. 🍄

**Disclaimer:** *This article is NOT to be used as a comprehensive guide for consuming wild mushrooms.*

*In some cases, toxic look-a-likes can occur, resulting in illness and even death if consumed.*

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Michael Kensinger is a writer and award-winning artist based out of Altoona, Pennsylvania. Working in a variety of mediums, Kensinger's work aims to bring awareness and appreciation to wildlife and habitat conservation. Michael can be reached at MichaelKensinger@gmail.com.

# A City Girl's Experience at Wildlife Leadership Academy

by Paloma Munoz

**E**nvironmental Conservation: From the need to protect areas like our national parks to keep species from going extinct, to the growing concern of climate change and how it will and is affecting endangered species, conservation is a large and open topic with plenty of things to look into. It's a prominent topic in the media and politics these days. As a girl who grew up in Washington, DC, the political heart of our country, habitat conservation was something I had never considered. I only had previously known only a city that, even though it was one of the greenest cities in the country, had little to nothing about river and forest ecosystems, let alone how they were being endangered.

My conservation journey started when I saw my school offering AP Environmental Science. I asked myself, "What's that?" Followed with, "The planet's in trouble?" Ultimately concluding with, "This is interesting." I signed up and loved the class, but the COVID-19 pandemic had taken away the one thing I wanted most of all: to see

Munoz Town Hall:  
Paloma was the  
spokesperson for her group's  
Town Hall presentation.





**Munoz**  
**Macroinverte-**  
**brates: Paloma**  
**and other**  
**students kicked**  
**the stream to find**  
**macroinvertebrates;**  
**this exercise**  
**teaches students**  
**one way to assess**  
**stream health.**

it with my own eyes. I was tired of reading about how forests were in trouble and how invasive species were taking over. The only forest I'd known my whole life was Rock Creek Park, which was nowhere near the magnitude the textbooks talked about and didn't have many of the issues that the same books discussed beyond pollution. However, given my location and the circumstances of the pandemic, I lost all hope of that wish. Then, "Eureka!" hit me. What if I did a program over the summer that supplemented what I had missed? After some searching, my mom found something. Wildlife Leadership Academy? Never heard of it, and it was pretty far, about a 4-hour drive for me, but it had everything I wanted. Experiencing first-hand all the concepts I'd learned up close and personal? Yes, please, and thank you! I would get the experience I had been longing for all year. So, I signed up.

After a pretty simple application process, I was in. In the weeks before camp, I was nervous. I'd never even done a sleep-away camp before. I recall being hesitant to accept my spot in the program. What if something went wrong? But after discussing it with my mother and a bit of back and forth



**Munoz Hatchery:**  
Students had the opportunity to tour the PA Fish & Boat Benner Springs State fish hatchery.

it and had a ton of fun. I learned a ton about finding macros under rocks and dirt. We even caught a few tadpoles! Getting to see all the animals and do all the tests I had only read about in books was the experience of a lifetime for me, and looking back on it now, I wondered how I could've ever

questioned my decision to accept my invitation. I may have had no skills outside of a classroom, but the camp was still fun and educational. Never at any point did I think I couldn't do something. I made friends that I'm still in touch with today and brought all of that knowledge from camp back to DC to share with all of my city friends!

Outreach with the camp is teaching me that you don't have to live next to a forest reserve or be great at hiking to be involved in conservation. I love writing, and the outreach opportunities that Wildlife has offered me so far have allowed me to do just that! I write monthly for the NextGen Blog in collaboration with my friend, I actively use the skills I learned at camp to make trifold and lecture slides to educate others, and I'm working on starting a new podcast regarding conservation! In the end, Wildlife Leadership Academy is something that I would recommend to anyone interested in protecting local ecosystems. It was an experience to behold. 🌍

from the camp through email reassuring me, I accepted. I arrived late on the first day thanks to the long drive, which didn't help my anxiety at all. I remember walking into the room and finding my seat, realizing I was the last one who had arrived. Everyone kept on asking what county they were from and I recall being confused. I didn't even know Pennsylvania had counties until this moment, and when I looked over at a state map marked with where everyone was from, I wasn't even on it. I was in the lower right corner in the margins labeled "DC". My group was in shock when they heard where I was from. However, I met my roommates, found some new friends, and pretty soon I felt right at home. We then split into groups and went outside. I couldn't help but look around in awe. Believe it or not, I'd never seen so many trees in such a disorganized heap! I was so used to the planned and planted trees of the city. But seeing all the forests around me like that for the first time was amazing. When we finished off our first day with nature journaling, one of my new friends came to me and asked me what I was staring at. I chuckled and replied, "This may seem crazy, but I don't think I've ever seen so many trees before!" She couldn't believe me when I said that, and several others came to laugh along with us.

The camp continued as a mixture of lectures and outdoor activities. The lectures were a breeze because I always had learned about the environment from inside a classroom, separate from the outdoors, but that made the outdoor activities a challenge. I felt so lost the first time we went into the nearby lake looking for macro-invertebrates and fish. Through the help of our wonderful teachers and my friends, I got through



*Article written by Paloma Munoz, who attended the Pennsylvania Brookies field school, offered by the Wildlife Leadership Academy, this past summer. Paloma will be returning to the field school this summer as an Apprentice, taking on a larger leadership role. The mission*

*of the Wildlife Leadership Academy is to engage and empower high school age youth to become Conservation Ambassadors to ensure a sustained wildlife, fisheries and natural resource legacy for future generations. The Academy offers high-achieving youth, ages 14-17, a comprehensive study of specific wildlife species, including classroom and field-based, hands-on education. Led by experts, including biologists and educators from across the state and beyond, the program also engages participants in team work, friendly competition, and an awareness of their natural world.*

# SCHOLARSHIP RECIPIENTS



*The Wildlife For Everyone Foundation has selected 5 Pennsylvania students as recipients of their annual scholarships. These students were chosen based on demonstration of exemplary academic achievement and commitment to furthering the conservation of wildlife and natural resources in Pennsylvania.*



**Anne Puchalsky**, Carlisle, PA, graduated from Penn State, University Park, this spring with a BS in Wildlife and Fishery Science and a minor in Forest Ecosystem Management. Anne has participated in several undergraduate research projects, including an investigation of eastern box turtle thermal ecology and population monitoring. More recently, she worked on a project analyzing how adult eastern Bluebird cognitive abilities relate to nesting success. Anne also serves as vice president for the Penn State chapter of the Spurs Collectors, a National Wild Turkey Federation club. Anne hopes to pursue a career in either herpetology or ornithology, preferably with non-game species of particular conservation concern.



**David Pearce** graduated in May of 2023 from Penn State, University Park, with a bachelor's degree in Wildlife and Fisheries Science and a minor in Forest Ecosystem Management. David is very active in the Penn State chapter of the Wildlife Society and received an undergraduate research grant from the College of Agriculture, which has allowed him to study occupancy of native mammalian species in Rothrock State Forest. David will begin pursuing a master's degree at Texas A&M in Rangeland, Wildlife and Fisheries Management. His aim for the future is performing ecological research and sharing his knowledge with the next generation of conservationists as a professor.



**Makayla Holleran**, Wellsboro PA, graduated this spring from Penn State, Dubois, with an Associate of Science degree in Wildlife Technology. Throughout her educational career Makayla has worked as a habitat management intern for the Pennsylvania Game Commission and has participated in many outdoor activities including hunting trapping fishing and hiking. Makayla strives to be hired as a wildlife biologist upon completion of her studies.



**Jeremiah Irwin**, Johnstown PA, is enrolled in wildlife and fisheries science program at Penn State, Dubois with an anticipated graduation date of December 2023. Jeremiah has spent two summers as a wildlife research technician in Colorado performing survivorship studies with Mule deer and Rocky Mountain elk. These experiences have convinced Jeremiah to continue working with the survivorship studies as a wildlife biologist, with hopes of advocating for the importance of species labeled as pests or nuisances.



**Elizabeth Bruner**, Blairsville PA, finished her first-year at Penn State, Dubois. Pursuing an Associate of Science degree in Wildlife Technology, she plans to continue her education at the University Park campus with a bachelor's degree in Forest Ecosystem Management. Although just one year complete, Elizabeth has considerable conservation outreach experience, including serving as president of the Governor's Youth Advisory Council for hunting, fishing, and conservation and currently serves on the adult council. Elizabeth's career goal is to become a forester managing Pennsylvania's eastern deciduous forests.



# Wildlife for Everyone Properties Important for Water Birds

by Mark Nale



The Soaring Eagle Wetland and the Dreibelbis Birding Area are a mecca for waterfowl and water-related species. Wood ducks, hooded mergansers, Canada geese and Virginia rails nest there. Many other species visit during their spring and fall migrations.

Quite a number of rare-for-Central-Pennsylvania birds have been spotted there—including common and least bitterns, great egrets, red-necked and Wilson's phalaropes, a marsh wren, long-tailed ducks, Eurasian wigeon, and a red-throated loon. A pair of common gallinules showed up at the Dreibelbis Birding Area during the Juniata Valley Audubon Society's Earth Week Birding Classic during the past two years.

Birders know about the birds, too. Checking Cornell University's eBird website as I write this, 32 eBirders, and not all birders are eBirders, visited the Dreibelbis Birding Area during the past week.

The species that stop during migration are dependent on the weather during peak migration, as well as the water levels in our wetlands. When conditions are favorable, visitors could see almost any waterfowl or waterbirds that migrate along the eastern United States.

The following waterfowl have been spotted at the Wildlife for Everyone wetlands—mallard, pied-billed grebe, green-winged and blue-winged teal, red-breasted and common mergansers, northern shoveler, ruddy duck, American black duck, tundra swan, common loon, gadwall, American wigeon, bufflehead, northern pintail, American coot, red-head duck, common goldeneye, and a flock of snow geese.

Other water-related species spotted at Soaring Eagle or Dreibelbis Birding Area wetlands include—lesser and greater yellowlegs, Louisiana and northern waterthrushes, great blue and green herons, sora, osprey, assorted sandpipers, as well as Bonaparte's, herring, and ring-billed gulls.

Make time to walk the relaxing trails at Wildlife for Everyone's signature properties—seeing birds is a given. Recent improvements have made it easier to enjoy nature at both properties. 🗺️

*Mark Nale is an award-winning outdoor writer and photographer living in Centre County. He loves trout fishing, hiking, kayaking and observing nature. Mark has had over 1000 photos published during the past three years and he is a past president of the Pennsylvania Outdoor Writers Association.*



# H I G H L I G H T S

The **2023 SPRING CELEBRATION** was held at Wyndham Garden on May 19th. 150 friends gathered in support of Wildlife Conservation. Nicole Ranalli, *Endangered Species Biologist with U.S. Fish and Wildlife Service* was the guest speaker. Her presentation of Pennsylvania's Imperiled and At-risk Turtles, along with her live turtles, delighted the audience.

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# Pennsylvania's At-Risk Wildlife

by Nicole Ranalli, USFWS

**Female frosted elfin butterfly  
ovipositing on yellow wild indigo**

Photo credit: John Peplinski



**A**t-risk wildlife may not get the attention of a federal or state-listed species like the endangered Indiana bat (*Myotis sodalis*), but they fill an equally important niche in our drive to conserve biodiversity. The term “at-risk” carries no legal or regulatory definition, it means one of two things 1) management attention may be needed to facilitate species recovery, or 2) species life history is poorly understood and research could help fill data gaps.

As an endangered species biologist, I spend a lot of time working with people to avoid and minimize impacts to listed species and the habitat they depend on. Work with at-risk wildlife takes a different approach, a proactive one—we have the ability to change the course for a rare species before it requires legal protection. Should protection be necessary in the future, working closely with these species equips scientists with crucial knowledge to get us a leg-up in the recovery game. Here I discuss two such at-risk species, one from dry uplands, and one found in Pennsylvania’s beautiful rivers and streams.

The first species is the frosted elfin butterfly (*Callophrys irus*) which calls pine barrens home year-round. Pine barrens contain well-drained sandy and acidic soils. In the past, fires maintained these habitats, which resulted in an early successional structure that contained a diverse shrub and herbaceous understory, ample food and cover for wildlife, and few scattered trees. Fire suppression throughout Pennsylvania in the early 1900s has led to these habitats succeeding to closed canopy forest, resulting in lower plant and animal diversity. Other threats include the introduction of invasive exotic species that crowd out host plants, pesticides that can kill or harm individuals, incompatible land use, and habitat conversion.

Historically, frosted elfin were found in the Great Lakes and East Coast states. Frosted elfin are now scattered in disjunct patches of habitat, rights-of-ways, and former mine lands.



**Pine barrens habitat begins to develop a closed canopy when ecological disturbances are interrupted. Mowing is one method to open the mid-story to allow sunlight to reach the ground.**

Photo credit: Nicole Ranalli USFWS

Frosted elfin in Pennsylvania are known to use yellow wild indigo (*Baptisia tinctoria*) as their host plant, lupine (*Lupinus* spp.) are used in other parts of the species range. However, as a non-migratory species, the plant serves as more than just a caterpillar buffet; the elfins are tied to this plant during winter as well; in fact, this elusive butterfly is hard pressed to wander more than a couple hundred feet from a patch of host plants. By late summer, larvae that have fattened up on indigo, wiggle their way down through the leaf litter, close to the base of the host plants to pupate during winter. During this time, they are often covered in snow, blanketing them from the bitter cold. Once spring arrives, sunlight warms the duff layer, and life under the leaves begins to awaken. The drowsy elfins wiggle their way out of their cocoon, and crawl along the forest floor searching for perches to rest in order to allow their delicate wings to harden for flight.

Around mid-May, adults roughly the size of a quarter flit around on warm, sunny days



### Yellow lampmussel siphoning

Photo credit: Mary Walsh, Western PA Conservancy

grabbing a quick drink of nectar from early blooming wildflowers and shrubs, such as huckleberry (*Gaylussacia* spp.), blueberry (*Vaccinium* spp.) and cinquefoil (*Potentilla* spp.). Timing, and attention, must be perfect to view adults—individuals only fly for a couple of weeks, and are camouflaged brown and silver, perfect for eluding predators. Their true purpose in the spring, however, is to find a mate. During their short flight window, adults mate, lay eggs, and die. Caterpillars, resembling a green slug, hatch and begin their 5–6 week long feeding binge.

As you can imagine, ensuring that habitat is in prime condition to support a population has been a primary goal for this species thus far. Management that opens the understory such as mowing, exotics treatments, and overstory thinning have all been employed in Pennsylvania to help improve habitat for frosted elfins. We're also working to locate any remnant populations left in the state. So far, we only know of two populations in PA, in Centre and Huntingdon Counties. However, since the species' historic records are spread throughout many other counties (see this NRCS/USFWS Guide showing the species potential range: [https://ento.psu.edu/files/frosted-elfin\\_landowner-version-final.pdf/view](https://ento.psu.edu/files/frosted-elfin_landowner-version-final.pdf/view)), we are hoping more are out there waiting to be found.

In Pennsylvania's rivers lie another at-risk species, the yellow lampmussel (*Lampsilis cariosa*). Before getting into specifics on yellow lampmussel, here is a brief primer on freshwater mussels and their role in our ecosystem in

Pennsylvania. Freshwater mussels are among the most imperiled group of animals in North America. In Pennsylvania, we had 67 mussel species, 15 of which are now federally protected. In Pennsylvania, the Ohio River Drainage has the highest mussel species diversity, including 14 of the 15 listed species. The Delaware River Basin contains the other listed endangered species, the dwarf wedgemussel (*Alasmidonta heterodon*).

Freshwater mussels are keystone species within aquatic ecosystems, they serve to anchor and stabilize streambeds, shells act as refuge for other aquatic invertebrates, and mussels are a food source to a variety of aquatic and semi-aquatic species. Raccoons, river otters, great-blue herons, and muskrats feed on adult mussels, and glochidia (larval mussels) are a food source to a myriad of invertebrates and fish. However, due to their efficient filtering ability and very long life span, freshwater mussels can have a high viral and toxin load, which make them unsafe for humans to consume.

As filter feeders, mussels provide a source of clean water, which directly benefits people and greatly improves ecosystem quality. Mussels have the ability to greatly improve water quality through filtration and denitrification—the process by which nitrogen is removed from water by transforming it into gas. A single mussel can filter 10 – 15 gallons of water per day. It's no wonder mussels are beginning to get attention for these services! (See how mussels are uniting municipalities and conservationists in the Philadelphia region to improve water quality: [https://www.tpomag.com/online\\_exclusives/2018/07/philadelphia-is-using-mussels-as-mini-treatment-plants](https://www.tpomag.com/online_exclusives/2018/07/philadelphia-is-using-mussels-as-mini-treatment-plants)).

Just as butterflies and moths use host plants to facilitate their life cycle, most freshwater mussels use host fish. The cycle begins as females draw in sperm released into the water column by males of the same species (see image 4). She broods the glochidia in her gills, waiting patiently for her preferred fish host to happen by before releasing her young. Freshwater mussels employ unique strategies to entice their fish hosts. Some

have sophisticated lures resembling minnows, crayfish, or worms. Once the unsuspecting host takes the bait, glochidia are released, parasitizing the fish's gills and fins. In weeks or months, the larvae grow large enough to survive on their own, fall off the host, and settle into the new substrate. A genius evolutionary strategy bringing mussels to new habitat, and ensuring genetic exchange occurs between populations.

Yellow lampmussel ranges from Nova Scotia to Georgia on the east coast. In Pennsylvania, it's found in the Susquehanna and Delaware River Drainages. They prefer medium to large rivers, but can also be found in lakes and ponds in some parts of their range. Host fish include yellow perch (*Perca flavescens*) and white perch (*Morone americana*), and possibly other species such as bass (*Micropterus* spp.).

Threats to freshwater mussels include sudden changes in water levels, poor water quality, dams, and invasive exotic species. Adult mussels have a limited ability to move should water quality or quantity change suddenly. In addition, their breeding strategy makes them especially vulnerable to exotic species such as zebra mussels (*Dreissena polymorpha*) that have high filtration rates, and thus the ability to impede the transfer of sperm between males and females. Dams also impede the mussel's ability to breed, interact with host fish, and disperse. Restoration projects that benefit aquatic and semi-aquatic species also benefit mussels. Dam removal, streambank stabilization and riparian buffer plantings improve water quality, and provide more stable habitat for mussels and their host fish.

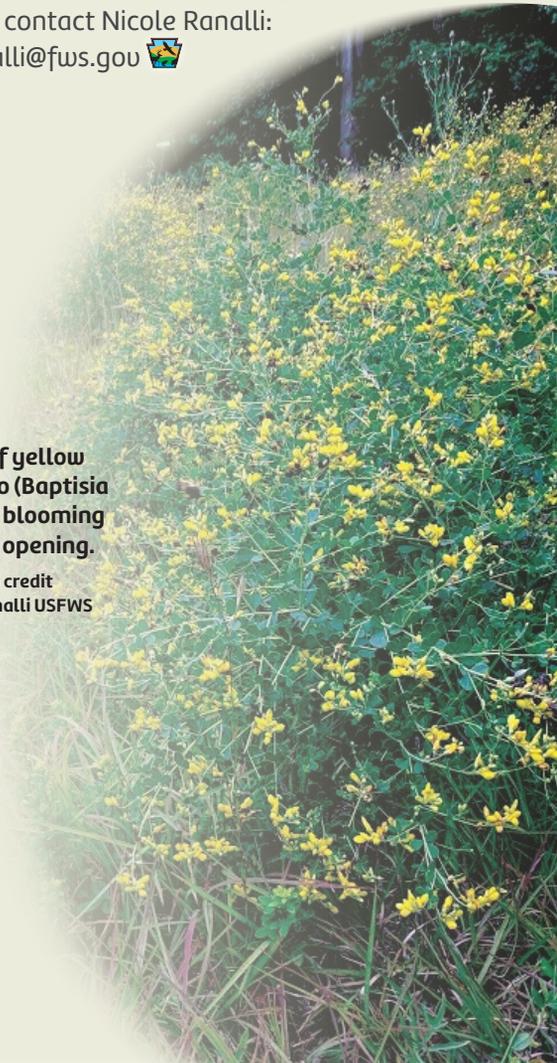
Scientists are working to fill in some of life history gaps, for yellow lampmussel including the status of each population throughout its range. Once some basic questions are answered, we will then begin to prioritize and focus conservation efforts.

You can also work to conserve Pennsylvania's imperiled wildlife! PA Game Commission and PA Fish and Boat Commission created an awesome online tool that can provide you a

list of vulnerable species in your area: <https://wildlifeactionmap.pa.gov/home>. After creating an account, you can draw your property in the map, or simply choose the county of interest. You will then receive a list of species that may be present, along with conservation recommendations.

Also, your observations are important to us! Let us know if you find a patch of yellow wild indigo, or a rare mussel. Depending on water level and velocity, mussels can be viewed by wading, using water scopes, snorkeling, or SCUBA diving. See this PA Fish and Boat Commission identification guide for a list of PA freshwater mussels, and directions for submitting observations: <https://pa.fisheries.org/wp-content/uploads/2018/02/Mussel-ID-workshop-field-guide-2-9-18.pdf>

For more information, or to report wild indigo, contact Nicole Ranalli: [nicole\\_ranalli@fws.gov](mailto:nicole_ranalli@fws.gov) 



**Patch of yellow wild indigo (*Baptisia tinctoria*) blooming in forest opening.**

Photo credit  
Nicole Ranalli USFWS

# SHARING THE EXPERIENCE

by Tim C. Flanigan



*“You know Tim; I believe that far more people have come to know the American Woodcock through watching their springtime sky dance rituals at sunset than have ever gotten to know them through hunting. I never tire of marveling at it,” Doc said with a smile in his voice. “And it’s far easier to take folks out to a field edge on a spring evening than it is to get them into a hawthorn or alder thicket on a hunt.”*”

“I wish I could remember how many folks I’ve introduced to the woodcock through watching their courtship rituals; got to be hundreds,” he continued as though talking to himself. “Never knew anyone to not be awed by the experience. Some acted like kids on Christmas morning when they first saw it. Many of them have told me that they still go out each spring to watch the courtship flights and often take others with them.”

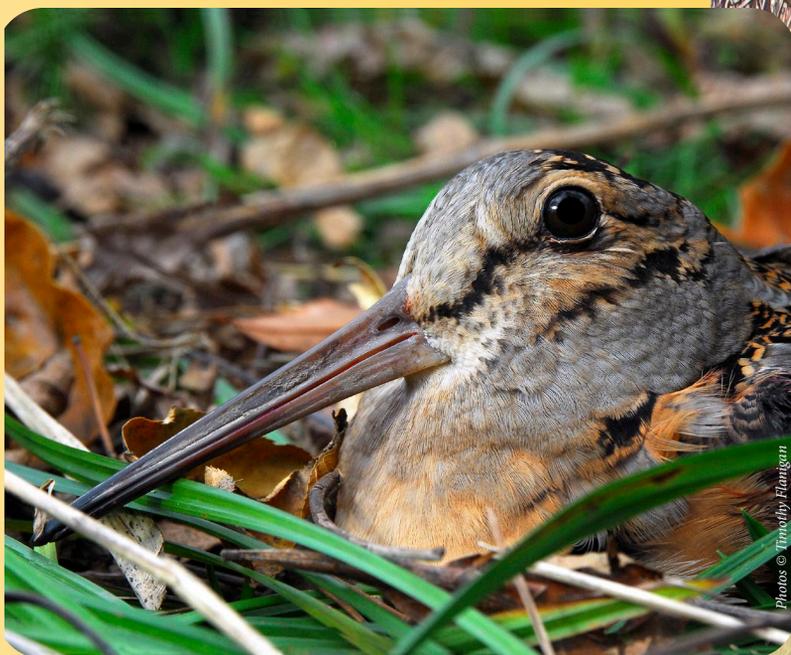
As Doc reminisced, a male woodcock peented (called) repeatedly on the ground, just a few yards from our location, seated upon an oak log at the edge of a little-used cattle pasture dissected by a small stream. The pasture was bordered by a woodcock-friendly hawthorn thicket that we’d hunted in successive fall seasons. Scattered young hawthorn trees dotted the reverting pasture. Alders lined the stream’s edges and its numerous open areas provided stages for several male woodcock to perform their sky dance courtship displays. This was a singing ground.

Each repeatedly announced his availability and virility with a series of nasally, buzzing “Peents.” Following each series of eight to ten calls, the males would launch skyward on twittering wings to perform their entrancing sky dance in the rapidly fading dusk.

We could easily hear the aerial portion of the nearest bird’s performance high above and we watched intently for a glimpse of the little show-off. At each flight’s zenith, he circled widely while broadcasting his courtship song of enchantingly melodic, trilled notes to woo his lady friends below. During his spiraling descent, he punctuated the still, cool, clear

evening with musical kissing notes; “Kiss-Kiss-Kiss-Kiss-Kiss!”

A few ensuing silent seconds indicated that he’d landed. “PEENT” signaled the start of another series of calls and another upward-spiraling flight that would reach several hundred feet above our admiring ears. During one of his spiraling, corkscrew-like descents, Doc and I caught a glimpse of him skittering across a hint of daylight in the western sky. “Isn’t that wonderful?” Doc whispered.



Watching the woodcock’s sky dance ritual is an unforgettable pleasure and sharing it with others makes it even more memorable. Doc’s history of introducing others to the American Woodcock, (*Scolopax minor*), in this manner also included an occasion that resulted in 1000 acres of prime woodcock habitat being set aside for these odd and fascinating, long-billed birds.

On a pleasant spring evening in 1960, Doc and a wealthy land developer lay on their backs, watching woodcock perform



on a large tract of land destined to be converted into a palatial resort. Doc had invited the developer to the show; hoping that he might be charmed by the woodcock's elaborate display and realize the value of woodcock habitat. To say that his plan worked is an understatement.

When darkness ended the timberdoodle performances, the enthralled developer turned to Doc and said: What kind of people are we if we can't set aside places for wildlife too? Today, a conservation easement preserves those one



thousand acres of that habitat, including their woodcock-watching site that remains in a natural state, protected from the urban sprawl that surrounds it. Doc's adjoining twenty-two acres are similarly protected.

The woodcock is a migratory upland game bird that thrives in damp riparian habitats all across the eastern half of the USA and Canada. Their preferred habitats are typically densely populated with short trees and shrubs and tangles of thorny plants and briars making entry by humans challenging. Other than woodcock hunters, few people probe such inhospitable cover to see the wondrously camouflaged woodcock.

So secretive and mysterious is the woodcock that many avid birdwatchers have not seen one. We hunters employ keen-nosed dogs to locate these secretive birds, but even when pointed, a motionless woodcock sitting on the forest floor is virtually invisible. It is their spring courtship displays that render them very obvious.

Watching these performances is especially gratifying an experience. To do so, select an appropriate site near a wooded riparian flood plane on a mild March or April day with generally clear skies and calm winds at sunset. As daylight fades into darkness, listen for the male's "PEENTS" on the ground followed by the whistling twitter of woodcock wings and his melodious songs above.

Woodcock perform their courtship rituals at dawn and dusk, but the evening performances last longer. Sky dance watchers should be on sight as the sun sets and remain still and quiet until the first tell-tale "PEENT" is heard.

Once generally located, viewers can hone in on the male's repeated peents and approach his stage stealthily while he performs successive sky dances above. Wear dark clothing and avoid spooking the amorous bird by approaching too closely. Viewers can easily enjoy the show from as close as thirty yards to his stage location to which he will return following each aerial performance.

Within seconds after returning to earth he'll "PEENT" to begin another display. On the ground he is sensitive to movements, but seems oblivious to artificial light, permitting viewers to illuminate his antics with flashlights for a very personal view of this rarely-seen bird. It is wise to extinguish the artificial light when he launches into the night sky and only use the light to view him on the ground.

By remaining quiet and still, viewers are commonly able to enjoy successive performances before the descent of full darkness ends the show. The very lucky observer may see a hen woodcock approach the male bird's stage, captivated by his elaborate exhibition.

Witnessing this age-old ritual cements a unique connection between the little long-beaked performer and his privileged audience who are inspired to learn more about "timberdoodles," and the more that we know about a species, the more we tend to care for it and its survival. 🌿

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*Tim Flanigan is a writer, photographer, naturalist, and a retired Pennsylvania Wildlife Conservation Officer. He is the author of the book; GROUSE & WOODCOCK - THE BIRDS OF MY LIFE, published by Wild River Press and he delights in sharing the fascinating life histories of these intrinsically wild and elusive game birds.*



Photo © Timothy Ettinger

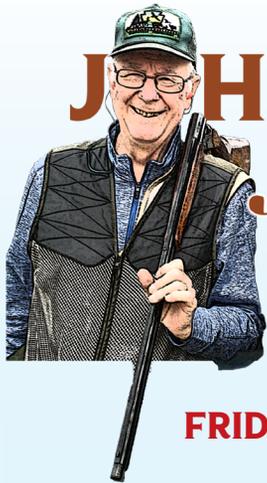
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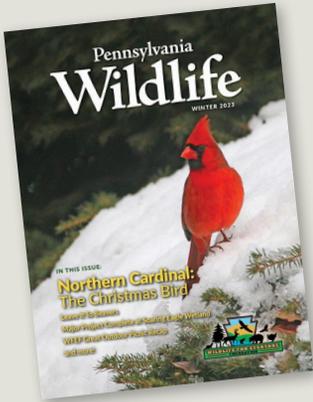


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While individual use of the wetlands is up, Wetlands Committee members have been busy providing organized tours to interested groups. On June 2, Margaret Brittingham (*far right*) led a tour of both wetlands for trustees of the Hamer Foundation.