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The mission of the Wildlife for Everyone Foundation is to promote wildlife conservation and education in Pennsylvania.

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If your address has changed or you do not want to receive this magazine any longer, please notify the Wildlife for Everyone office using the contact information listed above.

**Cover photo: Pink lady's-slippers by Mark Nale.** 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 1,000 photos published during the past three years and he is a past president of the Pennsylvania Outdoor Writers Association.

#### PRESIDENT'S MESSAGE



Scouts BSA Troop 32, State College clear cattails in the Soaring Eagle Wetland



Result of scouts' effort in Soaring Eagle Wetland

Cpring is here and summer is on the way, • just like accessibility improvements to the Soaring Eagle Wetland, our 83-acre wetland in Centre County. Completion of ADA-compliant features at this natural area will give persons with physical challenges a destination for recreation and restoration. An accessible trail connecting handicap parking to a platform overlooking Bald Eagle Creek will allow persons to walk or wheel on a firm, flat path to the Bald Eagle Creek to fish for trout year-round. Visitors can view wildlife from accessible observation areas and picnic under a pavilion. These opportunities to connect with nature will increase a sense of well-being for all individuals who venture into our wetlands.

The Soaring Eagle Wetland complements the completed Dreibelbis Birding Area (DBA), located one mile to the north. Both wetlands have experienced many visitors over the past year, some seeking rejuvenation, others lending their effort to improve habitat or keep the area pristine. Many thanks to Scouts BSA Troop 32 in State College who thinned invasive cattails in the Soaring Eagle Wetland to expose open water for wildlife.

The Wildlife for Everyone Foundation is currently seeking funding to open access to

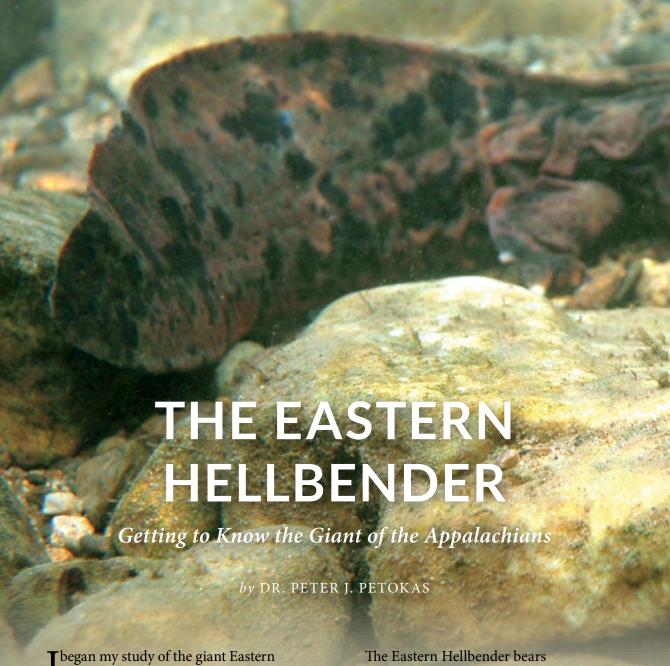
the north side of the DBA where substantial standing water attracts more secretive marsh birds like the Virginia rail and American bittern. The proposed handicap-accessible, elevated viewing platform in this remote site will allow all visitors a chance to see wildlife without disturbing the wetlands.

Other happenings this spring include the 4th annual Soaring Eagle Celebration, our biggest fundraiser, the awarding of scholarships to four university students, and continuation of the successful Seedlings for Schools program which targets schoolage youth across the state for conservation education.

If you'd like to make a donation to the Wildlife for Everyone Foundation, go to our website: www.wildlifeforeveryone.org or call the office at 814-238-8138. Another way to support our important work is to buy a ticket to the MEGA Raffle (see page 25). Good things are on the horizon. Be a part of it today!

Yours in Conservation,

Reed McCormick, President Board of Directors



Tbegan my study of the giant Eastern
Hellbender salamander in the summer of
2006. A state wildlife grant from the PA Fish
and Boat Commission provided research
funds to identify where these elusive animals
could be found and how the populations were
faring in face of ongoing threats to aquatic
life. My initial field studies concluded that
the hellbender was in severe decline; this
sparked a 15-year quest to restore hellbender
populations at historic locations in the
Susquehanna River watershed.

The Eastern Hellbender bears the scientific name *Cryptobranchus alleganiensis*. The first part implies that the hellbender has "hidden gills," but this is not true. All salamanders have gills as larvae, and so does the hellbender, but by two years of age they have resorbed the gill tissue and "breathe" by gas and ion exchange through their skin. This explains why hellbenders have extra skin as lateral folds along their bodies and feet to increase their skin's surface area. Hellbenders never leave the water and would not survive for long if they were to do so.



The last part of the name indicates where the hellbender was first discovered, in streams of the Allegheny Mountain range which are part of the larger Appalachian Mountain chain. The name "hellbender" may be a derivative of the German anbinder, which in translation means "alligator." German-speaking migrants to the New World may have mistaken the hellbender for an alligator and it is reported that settlers referred to it as the "Mountain Alligator."

The Eastern Hellbender is truly a giant. It can attain lengths of more than two feet and is one of two subspecies of giant

salamanders found in North America. The Ozark Hellbender is a slightly smaller, more darkly pigmented form found exclusively in streams and rivers in northeastern Arkansas and southeastern Missouri. The Ozark form was designated as federally endangered in 2011, but our subspecies is in a lot of trouble too. Pennsylvania populations have been declining throughout the Commonwealth, so it is essential that we apply conservation measures to ensure the continued existence of the Eastern Hellbender in our northern watersheds.



Hellbenders are completely aquatic and reside inside gravelly chambers that they excavate beneath massive rock slabs in large streams and rivers. In late summer, the males entice females to enter their chambers to deposit 100-250 eggs in bead-like strings. The eggs are then fertilized externally with milt, much like fertilization in freshwater fish. This approach to reproduction differentiates the hellbender from all other New World salamanders and is one of many traits that tell us that the species is most closely related to the giant salamanders of China and Japan. The fossil record tells us that the east Asian giants once occurred in what is now Nebraska and Saskatchewan, and it is generally believed that Eastern Hellbenders are their evolutionary descendants.

Hellbenders are sit-and-wait predators that grab a passing food item, usually a crayfish, using a powerful suction-feeding mechanism. They have small conical teeth they use to grab prey but are unable to chew food and must swallow prey items whole. Amazingly, hellbenders can digest the entire crayfish including the hard chitin exoskeleton. Chitin-digesting enzymes are found in some mammals, but it is unclear how these giant salamanders assimilate this substance.

Adult hellbenders are at little risk from predators other than humans, who sometimes kill them not realizing how harmless they are or how valuable they are to stream and river ecosystems. There is no other aquatic predator as effective at controlling invasive crayfish populations as the hellbender. The hellbender does best in high quality freshwater streams and rivers, and generally disappears from severely and moderately polluted streams. As such, they are indicators of water quality, kind of like "the canary in the coal mine." Hellbenders offer biological diversity and to ensure their continued existence, we must strive to be excellent stewards of our environment.

The underlying cause for the decline of the Eastern Hellbender is not clear. Multiple stressors are often cited, such as diminished water quality from mine and industrial discharges, loss of critical habitat, sediment deposition from logging and agricultural practices, channel straightening, and an increased magnitude and frequency of flood events. Hellbenders are also dealing with emerging diseases that may reduce their tolerance to other stressors. Invasive rusty crayfish, a typical prey item, can host chytrid

fungus and vector the disease to hellbenders. Additionally, crayfish are known predators of hellbender eggs and larvae, which can reduce or eliminate hellbender populations.

Each summer season for the past 15 years
I have taken college students out to
study and tag hellbenders with RFID
microchips that allow us to track

growth and health in individuals when recaptures occur, as well as document local and long-distance movements.

Some hellbender movements have been extensive, up to six stream miles, mostly in the upstream direction, and mostly by young males, thus promoting gene flow and genetic diversity in local populations. Some movements have taken place following habitat loss during severe flood events.

The Eastern Hellbender will need our assistance to reestablish itself in Pennsylvania streams and rivers. To this end, we have been installing artificial shelters, known as "bender huts," in several different waterways. The shelters are made of concrete and are intended to offer habitat and attract adults for shelter and nesting. They have provided us with a means to collect fertile eggs and hatchlings for captive rearing and eventual release to the wild.

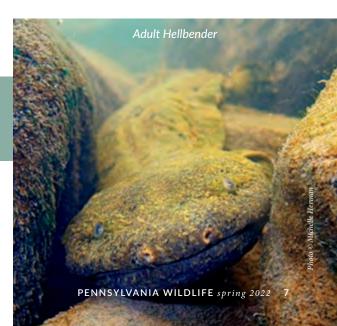
The shelters work quite well and in 2014 we collected eggs from them for the first

If you are fortunate to see a hellbender in a Pennsylvania stream, and you would like to share your experience or for more information, visit http://www.lycoming.edu/~petokas.

Dr. Peter J. Petokas is a Freshwater Ecologist and Research Associate with the Clean Water Institute at Lycoming College in Williamsport, Pennsylvania. His research interests include the study of amphibians and reptiles, conservation biology, vernal pool and wetland ecology, the ecology of native and invasive crayfish species, and the restoration of streams and watersheds.

time in Pennsylvania and brought them to our partners at the Wildlife Conservation Society's Bronx Zoo. Those eggs yielded 99 juvenile hellbenders that were introduced to a Susquehanna River tributary when they had attained 3-1/2 years of age. Following their release to the wild, those that survived have been feeding on invasive rusty crayfish and are growing and thriving. We have since raised a second cohort of juvenile hellbenders that were released in August 2021 and have a third cohort under care of the Bronx Zoo for release in 2025. Our long-term goal is to create a self-sustaining population in historic hellbender habitat, but we need to do much more captive rearing and habitat enhancement to bring the hellbender back to a healthy condition in Pennsylvania waterways.

One highlight of my work with the hellbender was my involvement with the Chesapeake Bay Foundation's Student Leadership Council. I shared my experience, knowledge, and resources with high school students who were working to develop and pass legislation to designate the Eastern Hellbender as the official Pennsylvania State Amphibian. I was especially thrilled to accompany the students to the state Capitol when Governor Wolf signed the hellbender bill into law in August 2019.





by ROBERT B.J. SMALL

Dr. Petokas and CBF students place nesting boxes.

Dressed in a blue "HELLBENDER DEFENDER" t-shirt, with an ambitious cadre of students gathered around, Governor Tom Wolf signed Senate Bill 9 on April 23, 2019, designating the Eastern Hellbender as Pennsylvania's official state amphibian.

"The voices of students can clearly make a difference here in Harrisburg," the Governor said.

For nearly three years, Chesapeake Bay Foundation (CBF) student leaders in Pennsylvania studied hellbenders extensively, installed nesting boxes in streams and sampled waters for hellbender DNA. They met with state legislators, and collaborated with Dr. Peter Petokas of the Clean Water Institute at Lycoming College in Williamsport.

The students' first draft of a bill designating North America's largest salamander, was sponsored by Senator Gene Yaw (R-Lycoming), and passed by the Senate in 2018. The bill expired at the end of the legislative session, but the students would not quit.

In early 2019, with student support, Senator Yaw reintroduced the effort as Senate Bill 9. The students' hellbender campaign garnered local, state, and national attention, making it onto the front page of the Wall Street Journal and as subject of the iconic Mark Trail Sunday comic strip. A radio station in Canada interviewed then-student leader President Emma Stone.

"It's about all species that rely on clean water, which essentially encompasses all wildlife in Pennsylvania, including us," former student leader President Anna Pauletta said.

"As students, it is our responsibility to make sure that the world we grow up in is the world we want and the world that we need," another former President, Lenka Platt added.

"It is my hope that other student leaders across the Commonwealth may be inspired by our work," Emma Stone added. "Making change is possible, no matter your age. All you need is dedication, support, and of course, a worthy cause. The hellbender is a worthy cause."

Robert B.J. Small is a Media and Communications Coordinator for the Chesapeake Bay Foundation, Pennsylvania.

## Spring Wildflowers

the first act of nature's three-act wildflower play

by MARK NALE

It's spring! The snow and ice have melted, turkeys are gobbling, trout fishing is in full swing and birds are singing. Familiarizing yourself with another key component of spring will enhance enjoyment while hunting, fishing and hiking.

As the sun climbs higher in the sky -warming the earth -- the curtain rises on
Mother Nature's wildflower play. The greens are
just getting started when the earth begins to
release the shoots and buds of the first flowers
of spring. The wildflowers that produce these
colorful blooms are the players in Act I of this
production. While some stand out as stars,
others make up the supporting cast.

Many of these early wildflowers are forest dwellers, such as hepatica, spring beauty, bloodroot, lady's slipper, Jack-in-the-pulpit, and trillium. Others, such as trout lily, coltsfoot, marsh marigold, wild geranium and Virginia bluebells often live streamside. I have many favorites, but exactly which ones get nominated for Tony awards will depend on you – the judges. Here are a few of my favorites to consider for nomination.

Trilliums – At least three species of trillium are found in Pennsylvania – red, white and painted. Its three leaves, three petals and three green sepals (the small leaf-like structures under the petals) give rise to the term trillium, from the Latin word for three. Painted trillium is found on dry ridgetops, while white and red trillium inhabit the richer soils found in the valleys. Red trillium is the most common.

Red Trillium

Lady's-slippers – About 50 species of orchids grow in the Keystone State, but probably the most widespread and one of the showiest is the pink lady's-slipper or moccasin flower. Pink lady's-slippers are usually found in more acidic soils, while the similar yellow species prefers more basic, limestone soils, such as those found at Canoe Creek State Park.

Jack-in-the-pulpit – This is likely the most unique wildflower in the state. Instead of normal petals, Jack-in-the-pulpit has a purple and green-striped, hood-shaped leaf (spathe) protecting a spike of minute flowers (spadix). Native Americans dried and ate the root of this plant. Jack prefers rich bottomland soils and often grows in association with red trillium. Although the plant often goes unnoticed in the spring, its cluster of red berries really stand out in the fall.

Bloodroot – Patches of sparkling white bloodroot flowers brighten up a drab forest floor in the early spring. In each flower's center, a single green pistil is surrounded by bright yellow pollen-producing stamens and a circle of white petals. Aptly named, if you break the plant's root-like rhizome, a bright red resin oozes out. The ephemeral bloom only lasts a day or two and, if fertilized, is replaced by a green seed pod.

Spring Beauty – Standing only four to five inches tall with flowers 1/3 of an inch in diameter, spring beauty is the smallest of the wildflowers listed here. However, the beauty of their delicate, pink-striped white petals more than make up for the plant's diminutive size. Spring beauty has a long blooming period. Its flowers open on sunny spring days, but close at night and during cloudy weather.

Columbine – Native red columbine is often found growing on limestone cliffs, for it favors basic to neutral soil and needs little moisture. Its unusual shape makes the red and yellow flower easy to identify. Some butterflies and bees will get nectar from columbine, but hummingbirds are the most efficient pollinators.



The leaf canopy develops in May – shutting off the flow of light to the forest floor. That signals the curtain drop on Act I of Pennsylvania's wildflower play. The light pink and white blooms of fragrant dame's rocket begin to line forest edges, signaling the end of spring. Soon summer wildflowers will take the stage in Act II of our wildflower play.

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 1,000 photos published during the past three years and he is a past president of the Pennsylvania Outdoor Writers Association.

DCNR SECRETARY
DUNN'S

# TOP 5 HIKES IN PA

by BARBARA SCHROEDER

Cindy Adams Dunn talks about her favorite hikes, the importance of volunteers and her hopes for improving the hiking experience in PA.

Imet with Cindy Adams Dunn, Secretary of the PA Department of Conservation and Natural Resources (DCNR), early in 2022 to discuss her favorite pastime – hiking. Cindy's connection to hiking is rooted in her childhood. Raised in Fishing Creek Valley just north of Harrisburg, Cindy remembers her father taking her on hikes as soon as she could walk; and she fondly recalls having free reign to explore the trails and forest of First and Second Mountains on either side of her valley home.

While hiking is a great way to get exercise, "for me, it's more mental," says Cindy. "I find it relaxing, it reduces stress and I feel more confident as a result of the experience." So where in Pennsylvania does this seasoned hiker go to reap these benefits. Cindy shared five favorite hikes that highlight different objectives, skill levels and terrains.







#### APPALACHIAN TRAIL at Scott Farm - Carlisle, Cumberland County

Situated in Cindy's "backyard," the Appalachian Trail at Scott Farm is one of Cindy's favorite hikes. It's beautiful, accessible and offers two distinct hiking options. On a weekend, Cindy often opts for the 4-mile round trip to the top of Kittatinny Ridge where it intersects with the Tuscarora Trail. "It's a wonderful view and there is a rock bench close to the top that's a nice place to rest and regroup." There is a significant climb and the entire trip takes about 3 hours.

When strapped for time during the week, Cindy likes to walk along the Conodoguinet Creek in either direction from the farm. The trail is flat and there is excellent birding. A boardwalk carries the hiker through wet lowlands. "The Virginia Bluebells are spectacular in the spring," notes Cindy.





#### FORBIDDEN DRIVE - Wissahickon Valley Park Trail - parts of Philadelphia and Montgomery Counties

Formerly a road, this path is a 7-mile gravel and asphalt trail that follows a picturesque section of Wissahickon Creek between the Schuylkill River and Montgomery County. A short distance from center city Philadelphia, the Forbidden Drive meanders through Wissahickon Valley Park, a verdant oasis of big forest, waterfalls, streams and wildlife.

According to Cindy, "This is a great urban experience and one of the best bird walks in the state." Warblers are prevalent in late April/May. Formerly dotted with logging mills, this trail is marked by numerous historical and natural features. The trail follows the creek and is largely flat. Horseback riding and bicycling are permissible on this multiuse trail.



#### BLACK FOREST TRAIL - Tiadaghton State Forest parts of Lycoming, Potter and Clinton Counties

This 42-mile loop trail is a challenging course noted by steep ascents and descents. "It is rugged, featuring a high plateau area and strenuous treks that dip into creeks and valleys followed by climbs to higher elevations," remarks Cindy. The vistas are breathtaking and the wildlife plentiful. There are side trails that offer day hiking opportunities.

This trail holds personal significance for Cindy. It was on a backpacking trip along the Black Forest Trail that she and her future husband would realize they had a shared connection to nature.





#### FOREST CATHEDRAL NATURAL AREA Cook Forest State Park – parts of Clarion and Forest Counties

According to Cindy, the 1.5 mile loop trail that includes the Longfellow and Ancient Forest Trails in the Forest Cathedral Natural Area is a must-do hike for all Pennsylvanians. Featuring old growth forest of white pines and hemlocks, the Forest Cathedral Natural Area is a reminder of what Pennsylvania looked like ages ago. The circuit takes about one hour and is best experienced when interpreted by an environmental educator at the Log Cabin Inn Environmental Learning Center. The trail is gravel with minimal elevation change.

## MID STATE TRAIL – central Pennsylvania – parts of Bedford, Huntingdon, Blair, Mifflin, Centre, Clinton, Lycoming and Tioga Counties

The Mid State Trail (MST) is the longest and most-connected trail in Pennsylvania, bisecting the state north to south from the Maryland to New York border. Much of the MST and its connecting trails are on public land, traversing through 8 state parks, 5 state forests and state game lands. The 327-mile MST offers hikers a range of experiences from railroad grade to rocky ridgetops. It affords outstanding views, remnants of historical industry and many side trails. It is rated moderate to strenuous, with the section from the Maryland border to Centre County being particularly rugged and demanding.

VOLUNTEERS
NEEDED:

"The trails in the middle part of the state are under-utilized," comments Cindy. A grassroots movement is underway by private, non-profit trail clubs to build new trials to connect the existing PA trail system. One example is the Greenwood Spur, a notable side trail of the MST in Huntingdon County. It was connected to the Standing Stone Trail, which leads south to the Tuscarora Trail, joining the MST to the Great Eastern Trail footpath, the 1800-mile long-distance footpath that crosses nine states.

#### Trail upkeep often depends 100% on volunteer effort.

-Cindy Adams Dunn

There are more than 12,000 miles of trails in Pennsylvania and volunteers are essential to maintaining them. The surge in trail use brought on by the pandemic has resulted in more erosion issues, trampled vegetation and increased litter. "Trail upkeep often depends 100% on volunteer effort," states Cindy. Two statewide groups that coordinate volunteers to provide trail maintenance are the Keystone Trails Association (KTA) and the Pennsylvania Parks and Forests Foundation (PPFF). The KTA organizes a Trail Care program that incorporates grassroots trail groups across PA. The PPFF organizes Friends Groups and raises money for trail maintenance in state parks and

#### My goal is for all 13 million Pennsylvanians to have a "Go To" trail, which means a trail within 10 minutes of their home.

-Cindy Adams Dunn

state forests. DCNR will connect interested volunteers to these groups.

According to Cindy, two issues of concern that have adversely affected trails and the hiking experience in Pennsylvania are the changing viewsheds and encroaching development. The increase in the number of warehouses along interstates like I-78 and I-81, as well as Route 33 in eastern PA, have broken up the once pristine view of the natural landscape. Additionally, development has disrupted trails. These challenges emphasize the importance of land conservation and the pursuance of long-term easements with landowners. Cindy urges Pennsylvanians to join their local trail group and land trust, whose missions are to promote land conservation and maintain trails.

Cindy Adams Dunn's goal is for all 13 million Pennsylvanians to have a "Go To" trail, which means a trail within 10 minutes of their home. This is not a far-fetched goal considering the vibrant trail system that Pennsylvania offers. Lace up those boots and get out there!

#### **KEYSTONE TRAILS ASSOCIATION (KTA)**

www.kta-hike.org

PENNSYLVANIA PARKS AND FORESTS FOUNDATION (PPFF)

www.paparksandforests.org

DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES (DCNR)

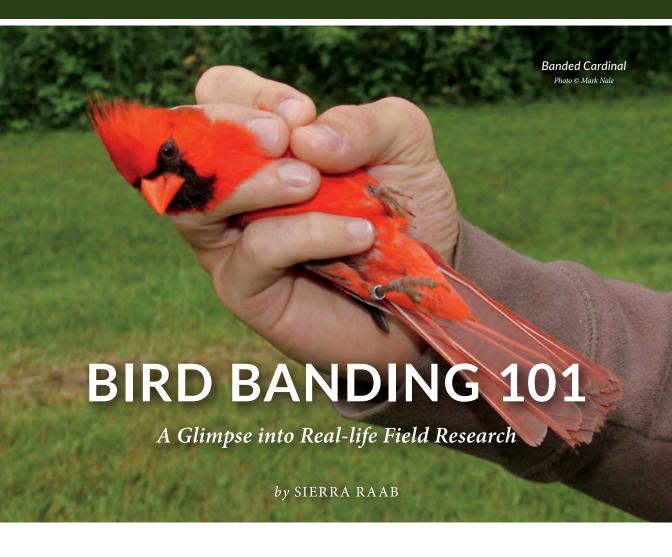
www.dcnr.pa.gov

#### 2022 SOARING EAGLE CELEBRATION UPDATE

The 2022 Soaring Eagle Celebration is in the record books! Close to 200 friends gathered at the Wyndham Garden State College in April to show their support for the Wildlife for Everyone Foundation. The ballroom, festooned in red, white and blue was fitting for the first Soaring Eagle Celebration, formerly the Pennsylvania Wildlife Gala. Patrick Miller, wildlife educator and member of the falconry team at Hershey Resorts was the speaker. Accompanied by Bliss, his eagle, Patrick regaled the audience with captivating facts about the golden eagle, one of the largest and most majestic birds of prey. A spirited live auction, led by auctioneer, Ron Gilligan, brought top dollar for interesting items and experiences. All proceeds benefit Wildlife for Everyone's mission of promoting wildlife conservation and education in Pennsylvania.







During my visit to the Penn State DuBois campus with the Wildlife Leadership Academy, I was able to participate in the hands-on research activity of bird banding. For those who have never been bird banding, it is a tagging method used to collect data on birds. The information collected goes to the Bird Banding Laboratory of the National Geologic Survey database. It can then be used in a variety of research such as habitat studies and migration analysis. At the DuBois campus, they run a voluntary bird banding station open to all students.

The first step to bird banding is catching the birds. At the campus, mainly songbirds are targeted. Wide field nets with finemedium netting are placed around flight level, just above a few small trees and tall brush within the habitat. The birds fly into the loose net vertically, then drop into the baggy mesh at the bottom. The bird bander then picks the bird directly out of the net.

The nets are set up around 7:30 am and checked every hour until they are taken down around noon. The first net check was at 8:30 am. It was a little cold, but songbirds

#### A WORD FROM OUR FUTURE CONSERVATION LEADERS



#### Bird Banding at Penn State DuBois was an amazing opportunity to get a feel for what real-life field research is like.

-Sierra Raab

are most active in the early hours of the day. Most of the birds were easily taken out of the nets except for one goldfinch that was a little more tangled than the others. With help from the experienced field technician, the campus students were able to pluck the bird right out. The birds were placed into their own private canvas sack which is very dark and helps keep the bird calm and safe.

With a large number of birds, we made our way to the banding station. There the bird is identified, and a band size is selected. The bands are made of lightweight aluminum and inscribed with a unique serial number. The serial number is entered on the data sheet along with a notation indicating whether the bird is designated a hatch-year (hatched during present calendar year) or past-second

year. After a bird's second year, it is almost impossible to determine exactly how old a bird is, although mouth and eye color and even formation of the skull can yield a good estimate in some species.

The bird's sex is also recorded if possible. Some birds' sex can only be identified during mating season when the females have a brood patch. Finally, the bird is weighed. This was my favorite part, largely because the method is a little silly looking. The bird is put into a pill bottle upside down and then weighed on a scale. Although seemingly odd, the upsidedown position and tight fit help ensure that the bird is still and secure. After a split second on the scale, the students are done with their data collection.

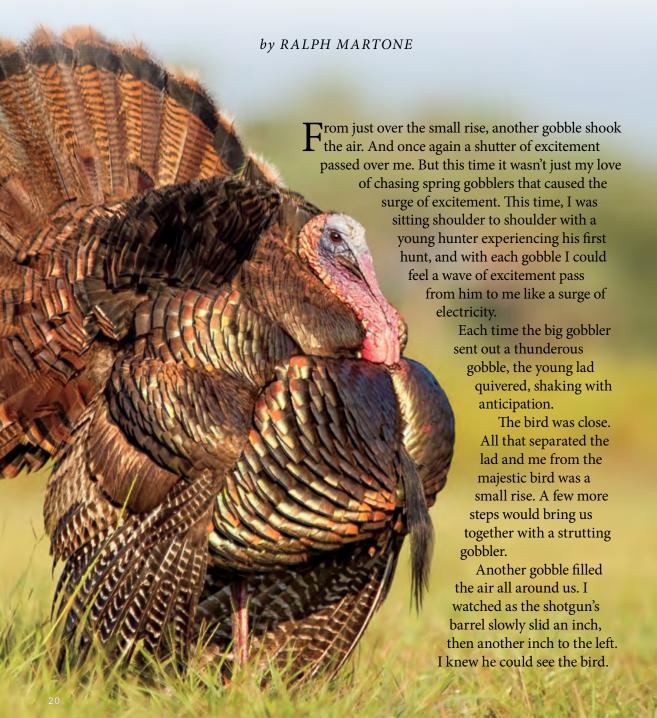
After all the data was collected, each of the Wildlife Leadership Academy students were ale to hold and release a bird. I released a stunning red-winged blackbird. Bird Banding at Penn State DuBois was an amazing opportunity to get a feel for what real-life field research is like.

Sierra Raab has been a Wildlife Leadership Academy blogger for two years. She is currently in her junior year of high school and is planning to attend college for wildlife technology.

#### PASSING ON A

## Hunting Heritage

ONE HUNTER AT A TIME



Then suddenly I could see the bird. What a magnificent sight!

A white head, the size and color of a softball floated slowly along the edge of the rise. A single eye scanned the shelf in search of the yet unseen hen. At just 25 yards every detail of that head told me we were looking at a big mature bird.

But with just the head visible, we had to wait. The young man sitting to my left and I had discussed the principles of spring gobbler hunting many times. Each discussion of the upcoming spring gobbler hunt had begun and ended with the three rules of safe gun handling and the need to see a beard before pulling the trigger. I knew the young hunter wanted to kill this bird more than anything in the world, but I also knew he wouldn't compromise the rules.

I watched and waited. When I saw the gun's muzzle begin a slow crawl to the right, following the bird, I nudged his shoulder just enough to send the message, don't move, wait.

It worked, the muzzle stopped moving to the right and so did the bird.

This hunt began long before today's hunt. It actually began during a science class.

After 24 years teaching science, I had seen all types of students pass through my classroom, but Jacob was different. Despite numerous attempts to get him to speak up in class nothing worked. Then one day, I announced that our school would be hosting its annual Hunter/Trapper Education course.

Suddenly, something changed in Jacob's face. The sullen, distant expression I had seen for the past semester was instantly replaced with a broad smile and glint in his eyes. I asked if anyone in the middle school class would be interested in taking the Hunter Education class. A few hands went up around the room, but one hand beat them to the top, literally quivering in place. It was Jacob.

The class ended and the students filed out except for one. Jacob stood in front of my desk, the broad smile and sparkle in his



Ralph Martone and grandson, Elliot after the hunt.

eyes were still there, but then I heard Jacob's actual voice for the first time. Not the mild uncertain voice he had used to answer the occasional question; this voice was clear and confident.

"I really want to take the Hunter Ed course, but I can't talk my mom into it. She says we don't have anyone to take me hunting," Jacob's voice trailed off as the excitement drained away.

"I see the beard," I whispered, "Go ahead and shoot." Those words still hung in the air when Jacob's shotgun roared, and the big gobbler rolled in a flurry of feathers.

I watched Jacob run forward to retrieve his trophy. Once again, my gaze fixed on the young man's face as he hefted the gobbler by the legs. The broad smile and gleam in his eyes were back and this time, there to stay.

Watching Jacob reminded me that mentoring young hunters is an important part of passing our hunting heritage on to future generations.

A 25-year career as a science teacher and 30 years as a Hunter Education Instructor convinced Ralph Martone of the importance of introducing a new generation to the outdoors. Serving as a volunteer for various conservation organizations, including the National Wild Turkey Federation and Wildlife Leadership Academy, offers him additional opportunities to involve the next generation in outdoor activities.



#### WETLAND UPDATE

## Soaring Eagle Wetlands: Building Momentum

by JASON BEALE, CHAIR OF THE WETLAND COMMITTEE

2021 was a landmark year for the Foundation with the completion of the Dreibelbis Birding Area, and 2022 is shaping up to build on that momentum. The Soaring Eagle Wetland project is ready to break ground and additional enhancements are planned at the Dreibelbis Birding Area. With the development of these ADA-compliant wetlands, we're seeing increased use beyond the birdwatching community, including neighbors and community service groups such as scouts, as well as individuals committed to the project and the Foundation's mission. The growing number of visitors at the Dreibelbis and Soaring Eagle wetlands has also led to more community investment in the form of donor and grant support.

Phase one development at the Soaring Eagle Wetland, with support from the Hamer Foundation, the Department of Conservation and Natural Resources (DCNR) and the Department of Community and Economic Development, focuses on improving access to Bald Eagle Creek. Site improvements include handicap parking, a pavilion, interpretive signage and over 600' of accessible trail to an observation deck and fishing area. The target completion date is November 2022.

Highlighting his years of service working on the wetland projects, the Foundation celebrated Mark Nale as our first "Volunteer of the Year". Mark has been instrumental in moving these projects forward, both through his own efforts, as well as recruiting and supporting other volunteers. You can see Mark's excellent bird photography on the interpretive signage at the Dreibelbis Birding Area. Volunteer opportunities will increase as we develop and implement a maintenance plan to manage trails and buildings, as well as improve wildlife habitat.

With the enhanced opportunities for accessible wildlife viewing and recreation at the Dreibelbis Birding Area and Soaring Eagle sites, we are working to improve our public outreach. To this end, the Foundation is developing a dedicated website for the wetlands that will include updated maps and educational resources to assist visitors in identifying the different habitats, plants, and wildlife they may see. I encourage you to come out and experience nature at the wetlands!



Wood Duck Way sign showcases Mark Nale's stunning outdoor photography.

Photo © Barbara Schroe



## Margaret Brittingham

#### RETIRES FROM PSU

by MARK NALE

Margaret Brittingham, professor of wildlife resources, extension wildlife specialist, and one of the state's leading ornithologists, recently retired from Penn State after a 33-year, innovative career in the College of Agricultural Sciences.

She was the first female faculty member in the School of Forest Resources (now Department of Ecosystem Science and Management). Originally given an extension and research appointment, she picked up teaching responsibilities in 1994, when she stepped in to teach ornithology. She continued to teach ornithology and an associated field lab each spring semester.

Teaching the field lab was one of Brittingham's favorite times of the year. Two of her usual stops were the yet-tobe-developed Soaring Eagle Wetland and Dreibelbis Birding Area.

"Each lab was unique, and we had so many great birding adventures," she said. "I especially loved seeing students come into the class knowing very little about birds and leave with a lifelong interest in birds and the environment. Preparing the next generation of conservationists was rewarding and one of the best parts of my work."

Brittingham is a respected researcher with more than 75 papers published in scientific journals — mostly focusing on avian ecology, ornithology and wildlife habitat management — as well as a trusted source of information about wildlife for the public and news media. With about 100 fact sheets and more than 50 extension publications online, she is widely known and respected in Pennsylvania.

Bradley Cardinale, professor and head of Ecosystem Science and Management, noted that she has been held in high esteem by her colleagues, valued by her students and trusted by the public.

"Margaret is a true trailblazer," Cardinale stated. "One thing I most admire about Margaret is how she has used her love for birds to connect people to nature. Her enthusiasm is contagious, and she has inspired many students to follow in her footsteps."

Even in retirement, Brittingham is still working to help people connect with their environment. She is an exceptionally knowledgeable Wildlife for Everyone Foundation (WFEF) board member and tireless advocate for the improvements occurring at the Dreibelbis Birding Area and Soaring Eagle Wetland.

"When Jerry Regan, former WFEF Executive Director, told me about the plans for the wetlands, I got very excited about his vision for making them accessible to more people, and I wanted to help," Brittingham shared. She is serving her second three-year term as a board member for the Foundation.

Board Chairman Russ Schleiden adds, "Margaret's academic background brought credibility to our efforts at the wetlands, and her knowledge of the wetlands and birds helped us to acquire several important grants." "She is also chairwoman of our scholarship committee which awards students who demonstrate excellence in natural resource-related fields."

Brittingham hopes for additional improvements at both wetlands, including an elevated blind at the Dreibelbis Birding Area.

Mark Nale is an award-winning outdoor writer and photographer living in Centre County. Thanks to Jeff Mulhollem for providing much of the background used in this article.

#### SCHOLARSHIP RECIPIENTS









Burlingame

Freed

Gundermann

Regmi

The Wildlife for Everyone Foundation recognizes the importance of scholarship and training in the fields of conservation and natural resource-related management. The Foundation is honored to assist these exceptional students with financial support in pursuit of their education and career goals.

REBECCA BURLINGAME - Junior, Bloomsburg University of PA: Ecology and Conservation Field Biology with a Spatial Analysis and GIS minor Rebecca's field research assesses the habitat of tree swallows using their nest feathers. She collected over 200 nests for disassembly, sorted and photographed the feathers, and later measured them to ascertain the tree swallow's response to artificial wetlands. Rebecca worked as an intern at Pocono Wildlife Rehabilitation Center, Stroudsburg, where she cared for a variety of wildlife and avian species. She plans to use her scholarship money to ensure the tree swallow study continues by funding nesting box repair and other materials. Her future ambition is to work for a government agency such as the U.S. Geological Survey or PA Fish and Boat Commission on conservation and research efforts.

#### CAMEALA FREED – Senior, Millersville University of PA: Environmental Biology

Cameala researched the impacts of invasive species on threatened and endangered species in the United States and will present her findings at the Council of Undergraduate Research in April. She converted parking lot islands to native plants for Johnson & Johnson in Lancaster and installed bluebird boxes on the property. She also monitors bats and small terrestrial mammals of conservation concern at Hawk Mountain, Pennsylvania. Cameala intends to use her scholarship funds to support research costs and subsidize conference registration fees. Her career goal is to work in a conservation capacity for a non-profit organization such as Alliance for the Chesapeake Bay or Lancaster Conservancy.

#### KATIE GUNDERMANN – Master of Science, Penn State University, University Park: Wildlife and Fisheries Science

Katie has a variety of field experiences working under the auspices of universities and state and federal natural resource-related agencies to conduct research on hoofed mammals. Her thesis assesses the relationship of elk movement in response to changes in reproductive status, forest structure and hunting pressures in Pennsylvania. She is a Graduate Research Assistant in the Quantitative Wildlife Ecology Lab at Penn State. Katie plans to use her scholarship money to help cover travel costs to the 2022 National Wildlife Society conference where she will present the results of her thesis. Upon completion of her education, Katie aspires to work as a quantitative ecologist for a federal agency such as the U.S. Forest Service or U.S. Fish and Wildlife Service.

#### ARUN REGMI – Doctor of Philosophy, Penn State University, University Park: Forest Resources

Arun's research investigates hunters' behavior and perception of deer population and management in Pennsylvania. He is collecting data by conducting hunter surveys in collaboration with the Pennsylvania Game Commission. As part of his research, Arun had the opportunity to participate in the PA mentored hunting program offered by the PA Game Commission. He has published many papers and delivered presentations focused on prescribed fire and optimizing value of pine sawtimber. Arun intends to use the scholarship money to support his travel to the Wildlife Society's annual conference where he will present his research findings. His goal is to become a professor of forest management and economics.

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