

A quarterly newsletter for Volunteers and Friends
of the Friends of Patuxent Research Refuge, Inc.

FRIENDS OF PATUXENT

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Jul-Aug-Sept 2023

Happy Trails

by Jennifer Greiner, Refuge Manager, Patuxent Research Refuge. Photos by Jennifer Greiner.

It's a saying often wished upon those who are leaving one thing and heading to another, and for good reason... trails invite their travelers to experience a host of emotions: wonder, adventure, gritty climbs and peaceful vistas. I happened to be writing this on June 3 – National Trails Day – and on the heels of a couple personal milestones: 30 years of Federal service and 3 years at Patuxent Research Refuge! All of which prompted some introspection, combined with a serious dose of “Wow – has it been that long?”

Without a doubt, some of the happiest aspects of the past three years are all the exciting new relationships built between the Refuge and a wide range of partners. Over the winter, a team of professionals from DC-area private firm Clark Construction volunteered its time over several weekends to assist Refuge staff in completing the long-awaited River Trail boardwalk project. What was a hands-on, pro-bono training opportunity for the crew resulted in top-notch work and a big improvement to this popular North Tract trail (see photos). This spring, expert volunteers from the Union Sportsmen's Alliance (USA) local carpenters' and painters' unions have been busy refurbishing the Environmental Education pavilion along the Wisdom Trail on the Refuge's South Tract. USA joins union members and like-minded organizations to volunteer their time and skills

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Completed River Trail boardwalk.

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Happy Trails

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to improve access to quality outdoor recreation <https://unionsportsmen.org>. Repairs to the access ramp are underway, including new railings and decking boards. Service staff have provided materials and labor and a dozen USA volunteers are re-constructing the access ramp and replacing the posts and railings on the 30-year-old pavilion. The Friends of Patuxent generously provided coffee, snacks, and lunches to fuel the volunteers.

To say I am enjoying this challenging climb with all of you and our new partners is an understatement. I look forward to where this trail will lead us, our visitors, and the Refuge! 🌿



Stone and gravel entryway to the newly completed River Trail boardwalk.



A USA Volunteer works on the boardwalk substructure.



Diana Ogilvie, Park Ranger and Volunteer Coordinator helps with transport.

Friends of Patuxent Bequest Program

Members of the Friends of Patuxent volunteer countless hours at Patuxent Research Refuge, and financially support research, conservation, and education programs and activities through Friends of Patuxent memberships, donations, and purchases at the Wildlife Images Bookstore & Nature Shop. There is another way you can provide support long into the future: Leave a gift to Friends of Patuxent, a registered 501(c)(3) nonprofit, charitable organization. You may make this gift by listing Friends of Patuxent as a beneficiary in your will or as a beneficiary on your annuity, trust, insurance policies, securities, or other types of accounts. If you would like to know more about how you can support the work of Friends of Patuxent long into the future, just request additional information about our Bequest Program Email: friendspr@friendsofpatuxent.org; Phone: 301-497-5789).

Friends of Patuxent is published quarterly and can be read online or mailed to our Friends upon request.

Many of the regular newsletter contributors and assistants are volunteers. We welcome and encourage all volunteers and Friends to submit items for the newsletter by emailing them to: ross.feldner@verizon.net

All articles submitted to the Friends of Patuxent Newsletter will be reviewed by newsletter staff prior to their publication. We reserve the right to not publish submissions based on length, content or suitability.

Article submission deadlines:

Issue No.	Months	Deadline	Issue No.	Months	Deadline
1	Jan-Mar	December 1	3	Jul-Sept	June 1
2	Apr-Jun	March 1	4	Oct-Dec	September 1

To become a member of the Friends of Patuxent or send a donation, please see "Membership Application" on page 19, or join online at <https://friendsofpatuxent.org/Join>

Babesiosis and other Tick-Borne Illnesses

by Jeannine Dorothy, Volunteer

Most people know something about Lyme disease, but do you know about other tick-borne illnesses in the Eastern USA?

Babesiosis is caused by a microscopic parasite, *Babesia microti*. The vector tick is *Ixodes scapularis*, the black-legged deer tick. This disease occurs mainly in the Northeast US, south to Maryland and Delaware and in the upper Midwest. Cases peak in summer, June to August.

Symptoms of babesiosis, if present, are flu-like: fever, chills, sweats, headache, body ache, nausea, fatigue, loss of appetite. Symptoms usually appear within a few weeks to a month. Babesiosis can be severe, even life-threatening, if not treated promptly. Those at higher risk are people with weakened immune systems or with no spleen.

Our other tick-borne diseases fall into the category of bacterial infections. Ehrlichiosis (caused by 3 species of *Ehrlichia*: *chaffensis*, *ewingii*, *muris eauclearensis*) and Anaplasmosis (caused by *Anaplasma phagocytophilum*) have similar symptoms to babesiosis, with the addition of a possible rash. If left untreated, they can cause severe disease (brain and nervous system damage, respiratory failure, uncontrolled bleeding, organ failure, death). Ehrlichiosis is more often seen in the very young or very old, or those with weakened immune systems. Symptoms for both appear between 5 and 14 days. Both can be carried by *Ixodes scapularis*, but Ehrlichiosis can also be carried by *Amblyomma americanum*, the Lone Star tick, which has become extremely common in our area. Peak incidence is seen in June & July. Anaplasmosis

has a very similar distribution to babesiosis. Ehrlichiosis is found in the eastern US, west to the Mississippi River and Texas.

Hard Tick Relapsing Fever (caused by *Borrelia miyamotoi*) has similar symptoms to the above, but with relapsing fever. It can progress to severe illness if not treated promptly. Onset of symptoms is within 3 days to 6 weeks. It is transmitted by *Ixodes scapularis*. It is found in the Northeast, Mid-Atlantic and upper Midwest and cases peak from June through August.

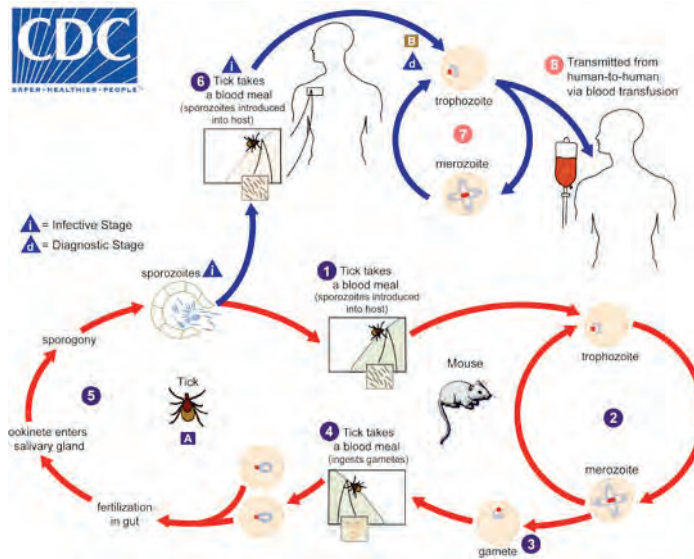
state, coma, cerebral edema, pulmonary edema, respiratory compromise, necrosis (often requiring amputation), multiorgan system damage and rash. The later rash appears as red or purple spots and signals progression to severe disease. Delay in treatment can result in severe illness and death.

Reducing your risk of contracting babesiosis and these other tick-borne illnesses is the same: **reduce tick exposure**. Check yourself frequently while in tick habitat, shower and do a thorough tick check when you return home. Remove any attached ticks immediately. Repellants can be used. Those containing at least 30% DEET are more effective for ticks. Permethrin clothing treatments are very effective for reducing exposure to tick bites. If you suspect a tick-borne illness, see your doctor for diagnosis and treatment information. All of the bacterial tick-borne diseases will likely be treated with doxycycline. Babesiosis may be treated with another medicine.

If you know you have been exposed to ticks or have found ticks attached, be persistent about testing and treatment. A negative titer test does not mean you do not have the disease, especially if it is a high negative titer. Also, tick-borne diseases can be stubborn – you may need to ask the doctor for more than a 10-day round of antibiotics.

Enjoy your spring and summer outdoors, but do be aware of the potential for tick-borne illness and reduce your exposure to the nasty little bloodsuckers!

All information is from the Centers for Disease Control (CDC) website. 🌿



Rocky Mountain Spotted Fever is the most severe of our tick-borne illnesses. It is found in the Eastern, Central and Western US. The causal agent is a bacterium, *Rickettsia rickettsia*. RMSF is transmitted by *Dermacentor variabilis*, the American dog tick. Incubation period is 3-12 days. Early symptoms are high fever, severe headache, malaise, myalgia, edema around the eyes and on the back, gastrointestinal symptoms and small pink non-itchy rash spots on wrists, forearms and ankles, spreading to the trunk. The rash will appear 2-5 days after onset of symptoms. Symptoms that develop 5 days and beyond are much more serious: altered mental

Getting to Know the U.S. Geological Survey Northeast Amphibian Research and Monitoring Initiative

by Evan Grant, Research Wildlife Biologist; Charles Shafer, Biological Science Technician; Adrienne Brand, Wildlife Biologist; Jill Fleming, Wildlife Biologist; and Jennifer Malpass, Biologist; USGS Eastern Ecological Science Center

The U.S. Geological Survey's Eastern Ecological Science Center (USGS EESC) is home to the Northeast Amphibian Research and Monitoring Initiative (NEARMI), one of 7 ARMI regions across the United States. NEARMI works on public lands in thirteen states from Maine to Virginia, including many National Parks and National Wildlife Refuges like Patuxent Research Refuge.

EESC's Dr. Evan H. Campbell Grant coordinates ARMI activities in the Northeast by conducting and developing amphibian research and monitoring projects. Research by NEARMI staff provides public land managers, including those at the National Park Service and U.S. Fish and Wildlife Service (USFWS), with information they need on the current status of amphibians, how amphibian distributions have changed

or are expected to change over time, and threats to populations. Data from the Northeast is also used collaboratively to evaluate questions about amphibian declines, threats, and changes over time at larger spatial scales.

NEARMI works to provide timely science not only about common, widespread species, but also to assist with conservation of species at risk and those being evaluated for listing under the Endangered Species Act. Work on these species may include field surveys, data analysis, or decision support for local managers. Many NEARMI projects are long-term collaborations and involve decision science, a set of tools and techniques for evaluating multiple goals and unknowns to aid resource management decisions.

Research Spotlight: Red-backed Salamander Population Dynamics and Climate Change Adaptation

In 2013, the Salamander Population and Adaptation Research Network started as a partnership between researchers at Penn State University and NEARMI with the intention of creating a research network to address climate adaptation and population dynamics across multiple scales. Our goals are to understand impacts of land use and climate change on salamander population dynamics and to develop a model to describe local and regional drivers of population dynamics by: 1) creating a versatile, statistically and methodologically efficient monitoring protocol, and 2) creating a network of linked observational and environmental manipulation studies.

Our focal species, the red-backed salamander (*Plethodon cinereus*), is a widely distributed, common woodland

species that uses habitat both on and beneath the soil surface. It is highly abundant in many forests and sensitive to environmental conditions (e.g., temperature, moisture), allowing us to make strong inferences about population dynamics and the effects of climate change on forest ecosystems. We use spatial capture-recapture analyses to estimate abundance, survival, recruitment, growth, and movement under a robust design sampling scheme.

We are currently working at ~30 locations within the range of the red-backed salamander with collaborators at a variety of academic, governmental, and public education institutions. Each location has 3-6 arrays of 50 coverboards, which are sampling tools that facilitate capture on the soil surface by mimicking natural habitat such as fallen logs. The replicated plots are big enough to capture a population, but small enough to conduct paired experiments that enable the comparison of controls to experimental treatments. Experiments have included manipulating winter snow cover to assess possible effects of climate change on overwinter survival and changing coverboard spacing to determine if resulting inference on individual space use is affected. Using site predictors such as habitat and topography, land use history, environmental conditions, and invertebrate community, we also plan to assess effects on morphology, abundance, age class structure, demography, and occupancy dynamics.

During active seasons (fall and spring, in most areas), red-backed salamanders are highly accessible to people of all ages and abilities in comparison to other wildlife, and occur in rural, suburban, and urban areas with for-

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Photo: Jill Fleming, USGS.

A NEARMI technician holds a recently captured red-backed salamander in a bag. Salamanders captured using mark-recapture methods allow us to spatially map the movement of individuals and estimate the overall population abundance near the study site.

South Tract's Bird Blind Receives Compliments from Texas!

by Karen Atwood, Friends of Patuxent Board of Directors Member, with thanks to PRR Rangers Tim Parker and Diana Ogilvie for details

Two recently visiting representatives of a national wildlife Refuge Friends* group in Texas enjoyed our bird blind on South Tract so much that they photographed it and plan to suggest a bird blind with a similar design for their Refuge in Texas! Many people visit national wildlife Refuges hoping to get to see the species of birds and other animals found on them; Patuxent Research Refuge (PRR) is no exception.

One of our Refuge's prime features is that it contains large sections of unbroken forest. Patuxent's unfragmented forest is ideal for songbirds and attracts many species, including beautiful, insect-eating Neotropical migrants**, in search of a good place to rest, to find food, and to nest and raise their young. Unfragmented forest means less disturbance and fewer predators than they would be exposed to in broken-forest areas. Some Refuge visitors, eager for opportunities to catch glimpses or photograph the winged wonders here, will traipse our wooded trails, binoculars and cameras in hand, necks craned, ears trained, watching and waiting -- but, not everyone can roam the forest trails, and some visitors are only vaguely aware of the feathered treasures in our trees.

Staff determined that one effective way to bring songbird observation and photography to more of the public would be to build a bird blind, with certain spe-



Photo: Tim Parker, USFWS.

The bird blind's design welcomes viewers of varying heights and ages.



Photo: Karen Atwood.

Visitors at the blind use different lens lengths and approaches for photos.



Photo: Tim Parker, USFWS.

cific design features, so people could more easily view some birds up close. The Friends of Patuxent*** supplied the necessary design-build funding through restricted-fund donations dedicated to education; and Refuge staff identified critical features for the design, including that the bird blind needed to:



Photo: Karen Atwood.

The colors mimic those of the National Wildlife Visitor Center (VC). Angular slats echo the Center's roof line.

- Have a natural look and feel on the interior: birds would be more at ease, could access shelter while visiting; the setting for photos would be native and "foresty";
- Be properly oriented, sunwise: the angle of light hitting the interior in morning and afternoon needed to facilitate both good viewing and photography;
- Allow for various camera types and lens sizes, without creating slats so large that visiting birds would be disturbed by human movements;
- Be situated and angled so that people of all heights could find a viewing win-

dow. Designers even added a bench at a sliding "window" for seated viewers.

- Be able to host school groups.

The team also determined that the design needed to include openings near the ground so that the youngest children could participate, too. And pho-



Photo: Karen Atwood.

The blind showing the sliding "door window" and a view through it when opened.

tographers would benefit: They could be on eye level with their subjects and get pictures of birds on the ground, resulting in stronger images. Designers also recognized that conditions for good bird/wildlife photographs would include natural frameworks for some foods placed in the blind to attract birds. For example, suet attracts woodpeckers, and one suet holder chosen for the blind looks like a log.

Woodpeckers are very tough to photograph in the wild; this feeder helps bring them in close for some amazing photo possibilities. Blind construction took place in 2019, and Visitor Cen-

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Sharing the Refuge with Columbia Residents at the Green Spring Fling in Howard County

by Abby Ershow, Maryland Master Naturalist (MMN), Refuge Volunteer, with contributions from Karen Atwood, Volunteer

On Sunday, May 7, I spent a beautiful and successful afternoon “tabling” with Karen Atwood on behalf of Patuxent Research Refuge (PRR). We staffed a table at the “Green Spring Fling” in Columbia, MD, on the grounds of the Meeting House in Columbia’s Oakland Mills Village. Event organizers (<https://omigreenteam.org/>) estimated that over 250 people attended that day, with many stopping by our table! Organizers had arranged for free native plants, including Bottle Brush Grass, Northern Sea Oats, Purple Love Grass, Black-Eyed Susan, and Short-Leaved Mountain Mint, plus planting instructions, for all who pre-registered, which helped draw the crowd. Organizers had also created bingo-card-like “Passports” to encourage attendees to visit multiple exhibit tables. Each table or exhibit received pre-inked stamps for stamping the passports, which participants then turned in for prize drawings.



Exhibits included conservation stewardship, climate change, stormwater management, pollinator gardening, solar power, electric vehicles (EV’s) and more.

Karen and I set up our event table and covered it with PRR location and trail maps in English and Spanish, Refuge and Friends’ brochures, newsletters, and monthly PRR program and activity schedules. We then laid out some animal specimens and field guides, and then welcomed attendees. People responded with curiosity when we invited them to our table by asking if they were familiar with the national wildlife Refuge that lay less than 15-20 minutes away from them by car, a locale but 10 miles from where they stood! They picked up our proffered materials, asked questions, and to our surprise, largely ignored the information-linked QR codes that we had also displayed.



Abby and Karen shared information and answered questions. The Electric Vehicle exhibit cars are visible in the background.

Photo: OMI Green Team.

Stephanie Everett, also a Master Naturalist and Patuxent volunteer, had assembled the animal specimens for us to share at the event: a deer pelt, a deer skull with antlers, fox skulls, and footprint stamps for making animal track impressions in clay — these garnered great attention! For sure — who, ever, gets to pet a deer? I also laid out the Poison Ivy educational presentation, wallet cards, brochures and opportunities for individualized Q&A sessions that I’d created based on my Master Naturalist certification project, all of which also drew much interest. Visitors said they knew they needed to avoid poison ivy, but often forgot what it looked like and eagerly took the informational wallet cards. Our collection of field guides for wildflowers, birds, insects, fish, mammals, and herps (reptiles and amphibians) inspired questions. The table-top Friends of Patuxent (FOP) display also drew lots of attention.



Photo: Karen Atwood.

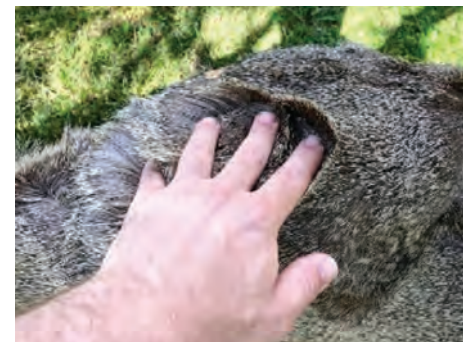


Photo: Tim Parker.

Specimens we brought to share. The deer pelt was a huge hit!

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PRIZE PASSPORT

Visit as many tables as you can for stamps for chance to win!

Citizens Climate Lobby	Community Ecology Institute	Coral Reef Encounter	Electrify Our Future	Friends of Patuxent
HoCo Watershed Stewards Academy	HoCo Office of Sustainability	Interfaith Partners for the Chesapeake	Interfaith Power & Light	Neighborhood Sun
Nurturing Nest	Oakland Mills High School		Sierra Club/Zero Waste	Craft Table
Play a Game	Visit all 4 Rain Gardens	Make a Mother’s Day Card	Check out the EV’s	Listen to a speaker
Visit our new Cistern	Purchase a Reusable Waterbottle	Check out the new native plant garden	Claim your Free Native Plant	Attend Clergy Panel Discussion

Photo: OMI Green Team

Bring your completed card back to the registration table for a chance to win!

OMI Green Team logo

NAME _____ Phone _____

E-Mail Address: _____

Visitors received a card with each exhibitor represented. Exhibitors stamped table-visitors’ cards with a pre-inked “bug” stamp.

Foundation Support of Friends of Patuxent

Lowell Adams, Vice-Chair, Board of Directors, Friends of Patuxent

Last year Friends of Patuxent received an anonymous and unsolicited foundation donation of \$30,000, no strings attached. The Finance Committee¹ was charged with the task of making a recommendation to the Board of Directors about how to spend the donation. The Committee requested needs of the Refuge and Science Center from Refuge Manager Jennifer Greiner and Science Center Director Tom O’Connell, and deliberated by email and Zoom meetings. It made its recommendations to the Board of Directors at the Board’s meeting of March 2023, and the Board approved the recommendations. The approved recommendations were to donate \$14,000 each to the Refuge and Eastern Ecological Science Center in support of the projects below, and to retain \$2,000 for growth of Friends of Patuxent.



Research conducted at Patuxent Wildlife Research Center helped to put the endangered Whooping Crane (*Grus americana*) on a path to recovery.



The Evening Grosbeak (*Coccothraustes vespertinas*) population in North America is declining and an R2R (Road to Recovery) initiative has been developed for the species.

Photos: U. S. Fish and Wildlife Service.

The donation to the Science Center will support a postdoc researcher to assist with a project studying the impacts to bird populations of collisions with buildings. Currently, there is no robust bird collision research using banded birds. By using existing data in the USGS Bird Banding Lab (BBL) database, researchers will examine collisions more accurately across species, sex, age, migratory flyway, season, and other factors to provide better estimates of annual survival and parameters related to mortality due to building collisions. Researchers also will be able to compare results with existing bird collision literature of non-banded birds and provide further guidance on a national study design for future collision data collection and conservation actions.

The BBL has been coordinating with the U.S. Fish and Wildlife Service (USFWS) to understand the data needs

of the USFWS and other partners in order to address the threat of bird collisions with buildings more accurately. Researchers have fleshed out ideas on what the BBL can accomplish by using banded bird data and how that analysis can complement conservation and recovery efforts for bird collisions by the USFWS and other partners. The BBL conducted an initial data query of its database and found that most collision records reported occurred for “backyard birds” or migratory birds that were coming to feeding stations. The two species that had the most collisions in the data query were Evening Grosbeak (*Coccothraustes vespertinas*) and Purple Finch (*Haemorhous purpureus*). Due to the steep decline of Evening Grosbeak, an R2R (Road to Recovery) Initiative for this species has been developed and is a collaboration of the Western Pennsylvania Conservancy’s Natural Heritage Program, the Carnegie Museum of Natural History’s Powdermill Avian Research Center, and The Finch Masters – Finch Research Network. The BBL and USFWS have joined the R2R working group as the current study can contribute to understanding how collisions may be a limiting factor for the decline of the Evening

Grosbeak. By further narrowing a regional-scale approach and understanding the specific covariates of bird collisions, researchers hope to shape the type of conservation measures and mitigation needed to reduce collision mortality in the most problematic areas across the U.S. and Canada.

The donation to the Refuge will support development of a Whooping Crane Exhibit in the National Wildlife Visitor Center. The exhibit will focus on Patuxent Wildlife Research Center’s (now Eastern Ecological Science Center’s) role in restoration of the Whooping Crane (*Grus americana*).

In the mid-1960s, the wild Whooping Crane population was very low, perhaps no more than 15 birds or so. Patuxent began its research program on cranes at that time. In 1966, biologists at Patuxent began a captive breeding program with 12 eggs collected from the wild in an effort to increase flock numbers. Over the next 50 years, researchers at Patuxent perfected techniques for breeding and rearing Whooping Cranes. The research program on cranes at Patuxent has ended, but cranes produced here were critical to the establishment of new populations in the wild. Patuxent can take pride in this work. The exhibit will help to keep the public informed of the important work Patuxent did in restoring wild populations of Whooping Cranes.

We are deeply grateful to the anonymous foundation donor and to you all for your support of Friends of Patuxent. Thank you!

¹Committee members: Lowell Adams (Chair), Ken Cohen, Rich Dolesh, Stephanie Kaufman, Brenda Stone, and Natalie Woomer. 🌿

Where Are They Now: William Edward Lomax

by Matthew C. Perry, Scientist Emeritus, Eastern Ecological Science Center

Bill Lomax came to Patuxent in 1956 shortly after being discharged from the Army and his tour of duty in South Korea (1953-55). He was hired at Patuxent as a janitor, although he was thinking of a better job, and certainly was qualified for a better job. He had been a heavy equipment operator in the Army and had his eye on this job, which involved taking care of Patuxent's extensive gravel roads, mainly on the Central Tract. Unfortunately for Bill, this job was occupied by Tom Hobbs, a local man that had support of supervisors. This was during a period in the government when minorities typically had problems with advancement before equal opportunity and affirmative action programs.

Bill's talents, work ethics, and enthusiasm were soon recognized by his supervisors in Facility Management. He worked for John Trower originally but then Bill Henson when Trower retired. He was given office assignments that included maintaining the huge hardware supply room that once existed in the Service Building. Other office duties were added to his responsibilities, including managing the large fleet of government vehicles, which included buying new ones and surveying old ones, based on miles driven or age. **In addition, over the years he maintained the water tower and sewer plant,** which both existed at Patuxent until the 1990s when these vital services were maintained by the Washington Suburban Sanitary Commission.

In 1987, Tom Hobbs tragically died of a heart attack while working at Patuxent. Patuxent had lost its hard-working heavy equipment operator. However, Bill Lomax quickly filled this position and enjoyed getting out of the office to grade the roads, like he had done 30 years earlier in South Korea. Many Patuxent staff did not realize that Bill



Sergeant Bill Lomax on a grading tractor in South Korea (1953-55).

had a license as a chartered bus driver and worked a total of 56 years as a driver on weekends for special group excursions in the Washington Metropolitan area. His expertise as a driver was recognized by his supervisors and he was often called to be the official driver of dignitaries visiting Patuxent or other Department of Interior facilities.

When Bill Henson retired, Gene Peeler became manager of the Facilities Management Section. Bill Lomax was now one of the most qualified and experienced people in the Section and a major manager along with Gene. Gene retired in 1987 and at the same time Patuxent Wildlife Research Center received a new Director, Mr. Harold "Hal" O'Connor. Hal wanted to upgrade the Facilities Section and hire a manager with a college degree. Unfortunately

for Bill, he did not technically qualify, even though he was very experienced and very knowledgeable about all aspects of the position. Hal asked me to assume an acting role as Facility Manager, which I did until the position was filled in 1988 with the hiring of John Stasko. John had been working at the Iroquois Job Corps Center and had excellent experience for the position. Bill continued in his role of overseeing the day-to-day work in the Section and he was respected and maintained a good working relation with staff.

John Stasko recalled that Bill was the key person in the Section he could count on to make sure the projects kept moving forward. John also remembers when we celebrated the 50th anniversary of Patuxent Research Refuge in 1989. John and his staff were moving a huge taxidermy mount of a standing polar bear from Patuxent to the hotel where we held a reception and dinner. They were wheeling the bear mount into the lobby when it began to fall on Bill Lomax. The men caught it before it fell all the way, but John had visions of Bill being "mangled by the bear."

Although Bill had a unique and major role in his professional career at Patux-



Bill Lomax with Tom Hobbs in Service Building.

ent, his personal life has been just as interesting and commendable. He was born during the Great Depression on July 17, 1933, in the Muirkirk Community, nestled between Laurel and Beltsville. He grew up in this general area with three siblings and went to local schools. He joined the US Army after high school and proudly served in South Korea during the Korean War. In 1954, he married his high school sweetheart, Shirley Eleanor Hall, and they had seven children. They lived together until she died in 2009 after 55 years of marriage. Bill now has eight grandchildren and seven great grandchildren, who all greatly love and admire him.

Bill's religion and church activities were important to him, and even while at Patuxent after work on Friday he and some colleagues would get together and say a few prayers for some of their colleagues, who were dealing with personal adversities. He still attends regular church services at Queen's Chapel United Methodist Church. But more amazingly, Bill was one of the founders of the Queen's Chapel Male Chorus and has sung in the chorus for 61 years. He also was the director of the chorus for over 50 years and has been a bass soloist for most of those years!!! One of the highlights of the chorus's ministry was traveling to the countries of South Africa and Zimbabwe for concert performances with Bishop Felton May.



Bill Lomax congratulated Dr. Fran Uhler after Island Marsh was renamed Fran Uhler Marsh at Patuxent's 50th anniversary in June 1989. Wild Kingdom's Jim Fowler and Dr. Uhler's niece, Helen Reser, look on.



Bill Lomax, Gene Peebler, Bill Henson, and Charlie Hebron.

One of Bill's passions has been all aspects of trains: collecting trains, reading about trains, observing the arrival and departure of trains at stations/depots, and going on train excursions. This passion was probably due to his first job at age 11, with the Muirkirk Post Office. Bill was a railroad express mail collector of mailbags that were kicked or tossed from the train daily! Sometimes the bags would end up on the rails, in the woods, or in a ditch, but he managed to retrieve them and carry them a quarter of a mile to the post office.

At age 12, Bill was a paperboy for the Times Herald News. He was small and thin for his age, so he really had to persuade the manager that he could handle the job. He delivered papers in the immediate Muirkirk neighborhood to about 10 homes at first. It wasn't long before his subscriptions increased to the adjacent neighborhoods of Rossville and Vansville. His hard work as a paperboy in the 1940s was rewarded with a \$300 Roadmaster bicycle gift from his employer.

He has many interests including sports (fan of NY Yankees and Dallas Cowboys) and music (favorite gospel quartet). He has always kept busy around his home and enjoys gardening and canning some of his garden products like tomatoes. Bill also finds time to can fruits like apples and peaches, and the apple sauce and apple butter are two favorites for the dinner table.



Bill with friends (Nell Baldacchino, Matt Perry, Henry Mouzon, and Mike Haramis) at Chan Robbins retirement party.

The professionalism that Bill brought to the Facilities Management Section had a major impact on efficiently and effectively maintaining Patuxent's facilities, so that managers and researchers could do their job with minimal support and logistical problems. A former Administrative Officer, Marion Clark, stated that "Bill was a gentleman, respected by all the staff." Marilyn Whitehead, who was the Administrative Assistant to several Directors of Patuxent, stated when Bill retired, he described his days at Patuxent as much "hustle and bustle," but that the ride into Patuxent in the morning and the departure from Patuxent at night were the most peaceful times he could imagine.

Although Bill was liked and admired by all staff, he sometimes would have disagreements with supervisors, because of his strong principles. He conducted all interpersonal activities with calmness and a smile, which made negotiations easier. In most cases managers above him took the advice of this sage man to the betterment of Patuxent. Bill's legacy at Patuxent is still present decades later with the younger people, who had the pleasure to work with him. Bill presently lives in Vansville Heights of Beltsville, and joins other retired colleagues several times a year for coffee and reminiscing about the early days at Patuxent. In July 2023 we will gather with Bill to celebrate his 90th birthday!

Special thanks to Ms. Sharon A. Lomax, Bill's eldest daughter, for providing personal information for this article. 🍏

Around the Refuge

Photos by Matt Beziat, Volunteer



Sunset at the Wastewater Pond (South Tract)



Sunset At Cash Lake (South Tract)



Cattail Pond (North Tract)



Mournful Thyris Moth (North Tract)



Forest Tent Caterpillar Moth (North Tract)



Grayish Jumping Spider (South Tract)

Brand-New Walking-stick Medallions and Pins Now in Our Bookstore & Nature Shop!

by Karen H. Atwood, Volunteer and Friends Board of Directors Member

What do souvenir pins and “walking-stick” medallions with a wondrous Whooping Crane in flight have in common with Patuxent-branded refillable water bottles, wildlife notecards, and natural bug repellent, child’s magnifying lenses, and specialty wildlife jewelry? These and more are now in the Friends Bookstore & Nature Shop! We’re especially excited to present two new items: colorful, custom-made, metal lapel pins and walking-stick medallions with the Friends of Patuxent logo, the iconic Whooping Crane. The crane is cast in flight with its long, graceful wings upraised, soaring above greenery, poised to power past a bright and hopeful sun into the brilliant blue beyond. Add the medallion to your walking stick; wear the pin with joy; show your support for our beautiful Refuge! (*Shop profits support Refuge missions.*)

We’ve also brought in many new books, including four engaging, fun, educational hands-on activity books, perfect for long summer days: Author/educator Jennifer Davis provides hands-on activities in **100 Things to do in a Forest** (Laurence King Publishing). Ms. Davis, passionate about the healing benefits for individuals and families through time outdoors, especially in woodland spaces, encourages learning through creativity and problem-solving. The book is both reference guide and inspiration: Use it for that little nudge to take a restful walk in the woods; go full-bore and take up restorative Woodland Yoga and Forest Bathing. Learn to build a campfire without paper or lighter fluid; try wood-whittling; sample some simple



Four engaging, fun, educational hands-on activity books, perfect for long summer days.

campfire-cookery recipes like Campfire Bread on a stick. Whether one is “outdoorsy” or not, this book helps us to connect with nature.

No forest nearby? No worries; we carry nature books for that, too! One example is **50 Things to Do in the Urban Wild**, by Clare Gogerty (Princeton Architectural Press). Ms. Gogerty provides 50 activities to address a city-dweller’s craving for connection to the



Photos: Ann Carlison.

great soil for a container garden; take a city hike; find nature in the city’s nooks and crannies — it’s there! Explore and enrich your urban lifestyle.

We have two more new books for sharing nature with youngsters: **The Nature for Toddlers Activity Book** (ages 2 to 4, by Jenette Restivo; Rockridge Press), and **The Nature Connection, an Outdoor Workbook for Kids, Families, and Class-**



Our new colorful, custom-made, metal lapel pins and walking-stick medallions, with the Friends of Patuxent Whooping Crane logo.

Photos: Karen Atwood.

natural world. This is a practical urban-activity guide, “full of inventive ways to interact with nature in all of its forms.” “Adopt” a tree on a city street; grow microgreens in a pot outdoors for yourself, and for some local pollinator-butterflies and bees. Start a mini worm farm to compost your veggie scraps; create

rooms (age 6 to “twens,” by Clare Walker Leslie; Storey Publishing, LLC). *The Nature for Toddlers Activity Book* has 50 interactive learning activities to engage young minds: Toddlers ask questions, recognize cause and effect, sort objects, develop their motor skills. Activities use basic household items, and can be done in a yard, a park, or a neighborhood. Learn about weather and seasons, soil and rocks, creatures, and green things that grow! Ms. Restivo is a naturalist, trained in ornithology and zoology, and a mother passionate about helping children fall in love with nature. She founded the website “Childhoodbynature.com,” and has written/produced programming for

Continued on page 18

Reels on Wheels Fishing Trailer is on the Job!

by Diana Ogilvie, Park Ranger, Patuxent Research Refuge, USFWS. Photos by Gina Hunt (MDNR) and Tim Anstotz, USFWS

Through a partnership with Maryland Department of Natural Resources, Patuxent Research Refuge now shares a new Reels on Wheels mobile fishing trailer, fully outfitted with equipment and supplies to offer introductory fishing programs for kids through adults, both on-Refuge and off-site at other fishing locations around the community. The trailer will extend Patuxent’s reach into areas where lack of transportation to the Refuge for fishing opportunities could be a barrier for some residents. The colorful and much-anticipated trailer is the result of a nationwide program funded by the Recreational Boating and Fishing Foundation (RBFF) to work with states and other partners to recruit new anglers to fishing. RBFF funded the purchase of the trailer, hitch, and all associated components necessary for a successful fishing event, including fishing rods, bait, coolers, folding chairs, and banners. Through a Memorandum of Understanding with Patuxent Research Refuge, Maryland DNR covers tags, title, and insurance for the trailer and researched and ordered all the fishing gear. In turn, Refuge staff arranged for the artwork wrapping, delivery/pickup of the trailer, purchased carpentry supplies to finish the trailer’s interior, and will provide a long-term, secure, and centralized location to store the trailer near the communities we want to serve.



The final piece of the partnership puzzle was a Coastal Conservation Association volunteer carpenter’s design/install of interior storage to safely transport the gear to and from community events. Events have been scheduled throughout the fishing season and will be staffed by Refuge and State staff. Talk about a team effort! 🌿

Zeta Phi Beta Sorority Has Fun Visit to Patuxent

by Diana Ogilvie, Park Ranger, Patuxent Research Refuge, USFWS

Zeta Phi Beta members made 2 trips to Patuxent Research Refuge in Laurel, MD for special recreation events in May. On May 6, they joined Prince George’s Audubon guides and FWS Urban Biologist Ela Carpenter for an *Introduction to Birding* walk.

After everyone received and practiced using binoculars, they set out to explore the bird blind, the Meadow Loop and Cash Lake trails. They saw a variety of birds, 16 species in total.

On May 20, Zeta Phi Beta members and families returned for a fun day of fishing and archery. A lot of kids caught their first fish, and one little girl outdid everyone by pulling in 12 huge bluegill! 🌿



Photo: Bill O'Brian, USFWS.

Patuxent “alumnus” Dr. Michael Erwin Has Just Published His First Popular Book

by Michael Erwin

Former Patuxent researcher reveals an adventuresome career spanning 4 decades and 5 countries in his new book

Patuxent “alumnus” and retired senior scientist Dr. Michael Erwin has just published his first popular book, *Birds, Beaches, and Biologists: Odd adventures of a wildlife biologist*. [Austin Macauley Publishers](http://AustinMacauleyPublishers.com), NY. The chapters describe his 30 plus years of field research in five countries, mostly on waterbirds while based at Patuxent, then at the University of Virginia field station until 2012. The book should be enjoyable to those interested in coastal birds and their conservation, as a quick overview of local culture in several Caribbean countries, and insights into island restoration and management. Books are available from the publisher, Amazon, Barnes and Noble and other outlets. (Email: rmerwin@copper.net).

Flamingos, snowy egrets, ospreys, terns, black skimmers: these are nature stories.

What is it like to follow white-tailed tropicbirds in a small plane, miles from land, over the vast Caribbean Sea? Or capture wintering common terns from a small shark fishing boat in southern Trinidad?

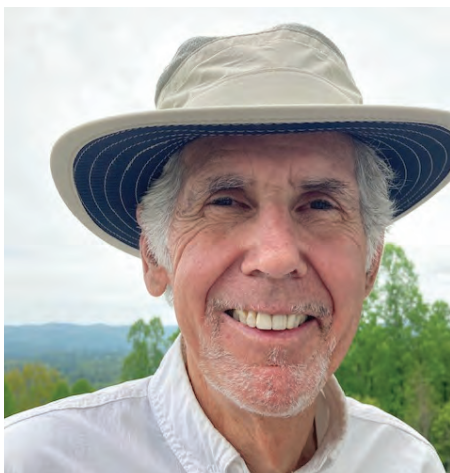
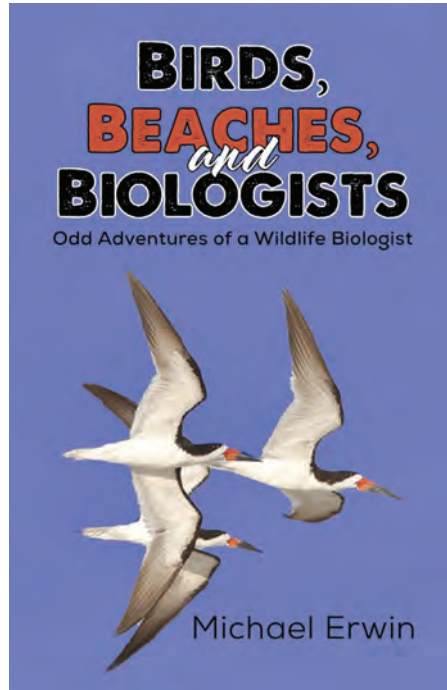


Photo: Diann Prosser.



By permission from Richard Ettinger.

Chesapeake Bay, Puerto Rico, Trinidad, Guyana, Suriname, Southern France: this is a travelogue.

How does a “flamingo roundup” in France include people from seven countries (and five languages) working in unison? How did a disappearing island (now being restored) in Chesapeake Bay once sheltering Native Americans, British troops, and a fishing village become a wildlife mecca?

Searing heat, hungry insects, boat problems, rescuing men at sea. This is a true-life adventure.

Learn how fieldwork in Green Bay, Wisconsin on night herons ends with saving two fishermen from drowning.

They are all part of Dr. Michael Erwin’s 40-plus-year career as a wildlife biologist. He brings his colorful experiences – the discoveries, the challenges, the dangers, and the joys – back to life in this riveting recollection of his love affair with our Planet Earth. 🌱

South Tract’s Bird Blind Receives Compliments from Texas!

Continued from page 5



Photo: Karen Atwood.

Native Coral Honeysuckle, a hummingbird favorite.

ter (VC) architectural considerations also came into play: The angular slats of the bird blind echo the angular roof line at the VC entrance, and the blind’s green paint and gray boards reflect the colors of the Center.

Volunteers and staff planted native coral honeysuckle (*Lonicera sempervirens*) vines, a hummingbird favorite, along the blind’s sides, and volunteers help stock the blind with seed and suet. Three volunteers in particular, Bobby Jones, and mother-and-son team Yvonne and Trevor Tate, helped build the blind. Yvonne and Trevor help stock it with food and maintain the honeysuckle “side walls.” Donations to the Friends of Patuxent (www.friendsopatuxent.org) at the VC and the Refuge’s North Tract fund the seed and suet purchases.

*Friends groups are the 501(c)(3) nonprofits that form to fundraise on a national wildlife Refuge’s behalf.

***“Neotropical migrants” are birds that live part of the year in Central and South America or the Caribbean, and travel thousands of miles north annually to breed in the US and Canada.

***The Friends of Patuxent Research Refuge, Inc., aka, “Friends of Patuxent” is our Friends group. 🌱

Historical/Cultural Finds in the Woods of Patuxent

by Sandy Spencer, Patuxent Research Refuge Biologist

Last March while tromping through deep woods of Patuxent's North Tract to place markers at bird survey points, I kept seeing a repeating theme: stones obviously placed or arranged in a linear pattern or in a pile along the rim of a wetland or oxbow. Not only does finding any stone in this relatively rockless Coastal Plain landscape usually catch my attention, but to find them clearly placed by human hands riveted me.

Occasionally I would find bigger stones that looked faced, standing upright. One such stone clearly had a straight line etched along the "top" of it. Boundary stone? Gravestone? Sometimes I would find straight ditches too, which are more easily explained as draining for farm fields. In a floodplain along Little Patuxent River were two straight ditches at right angles to each other.

In another area I found a stone and brick foundation that had lead glazed bricks and in the center a thick flat piece of iron (about 2"x 1.5' x 2'). Who knows what that was for! But I was so intrigued by the almost predictable, yet less explicable pattern of stones bordering wetlands/oxbows, and the marker stone, that I sought the opinion of two local aficionados who have studied Anne Arundel and Prince George's Counties settlement patterns, land uses, geography, and geological features, Ralph Eshelman and David Linthicum.

They were as excited as I was and felt the finds warranted more research of local historical records or review by state or FWS historical preservation officers. Eshelman and Linthicum felt the foundation may be a smithy related to Mrs E Harden's place (1860's?). There was a smithy and store not far



Figure 1: A rectangle of stacked stones (piers).

away. In the ranges impact zone I also stumbled upon an old bridge foundation, made of railroad rails, eight of them laid perfectly parallel across a small stream. The wooden surface which they supported is long gone. I



Figure 2: A boundary or grave stone.

am currently reviewing the Cultural Resources Overview, Ft George G. Meade (by J. W. Joseph, Principal Investigator, 1991) and Archaeological Report for Patuxent looking for clues. Some of the current roads of North Tract such as Switchback Road and South Road are very old, dating back to early 1700 and 1800's. If you have any knowledge of the historic sites on North Tract, I would love to hear more.

Did You Know?:

The Amazing Story of Gravel: Gravel and sand is nothing more than the broken-down rock from the Piedmont that has been carried by water and even tree roots and ice. The rounded edges of the boulders and gravel are the result of tumbling and abrasion during its movement down the waterways such as the Patuxent, Middle Patuxent, and Little Patuxent rivers. During times of floods, rivers and streams are capable of moving larger heavier ma-

Photo: Sandy Spencer.

Photo: Sandy Spencer.



Photo: Sandy Spencer.

Figure 3: Close up of Figure 2 stone showing etched straight line.



Photo: R. Eschelman.

Figure 4: Iron piece found inside alleged Harden foundation.

materials such as cobbles and even boulders. The color difference illustrates the variety of the Piedmont rocks that were the source of this gravel. Softer rocks erode more quickly so only the harder more resistant rocks such as quartz and quartzite dominate as one moves downstream farther away from the original Piedmont rock source.

In 1897 William Henry Holmes wrote:

Patuxent ... In ancient times ... descended from the mountains, gathered fragments of rock and carried them downward until the soft and friable ones were reduced to sand and the tough, flinty varieties became boulders and pebbles. The latter consisted chiefly of quartz and quartzite.

As one walks along the flood plain of the Patuxent River just below the Fall Line in what today is the Patuxent Research Refuge, you are walking over an area that once was crisscrossed with broad braided streams choked full of boulders and gravel eroded from the Piedmont. These boulders and gravel were tumbled by strong water flow from melted Continental ice sheets that once covered portions of what today is Pennsylvania to the north. As climate warmed the ice melted, releasing powerful streams and rivers of melt water capable of moving hundred-pound rocks.

Native Americans used these boulders and cobbles to cook on and when heated by fire used to heat water. Farmers who once farmed these lowlands found the boulders a nuisance and often moved them to the side of their fields or against a tree. Some were set upright and used as boundary markers. Some were used for piers to form raised foundations for farm buildings as well as house founda-

tions and chimney hearths. Some were even used as burial markers.

While boulders, cobbles, gravel, and sand seem pretty montane, they are the result of thousands of years of erosion, slowly tumbling along the waterways of the Patuxent Watershed. It also has economic value because of its use in products such as concrete, road, and building construction. 🌿

Many Thanks to the Volunteers Who Helped Reestablish the 325 Bird Survey Points Across Patuxent Research Refuge

by Sandy Spencer, Patuxent Research Refuge Biologist

In preparation for the Fourth Refuge-Wide Forest Breeding Bird Survey, the locations of the bird survey points had to be remarked with poles, renumbered, and flagged. There are 325 of these points at every fourth vertice of the historic Patuxent grid. The points were first established in 1996 for the first Refuge-wide survey. It was a rather gargantuan effort, as most of the points are off the beaten track, in deep woods, thickets or swamps, or on the far side of a broad oxbow or beaver pond. We only had the month of March to do this work--much earlier might mean hard frozen ground, any later the leaves would pop out making it harder to navigate to targeted points, laden with poles and mauls. But the task got completed and now the bird survey is underway! With deep appreciation, I want to thank Robert Ferraro, John Trageser, Joe Moore, David Linthicum, David Spencer, and Sandy Hanson. You all are awesome!

Sharing the Refuge with Columbia Residents

Continued from page 6

Attendees seemed particularly interested in learning of the opportunities at PRR for taking flat-terrain trail walks (with the availability of bathrooms) and the chance to check out the National Wildlife Visitor Center. The time passed quickly while we chatted with attendees, providing them with information about the Refuge and FOP, and encouraging them to visit PRR. Some people mentioned they were aware of PRR but had not been to the Refuge for years; they spoke of enjoyable times spent at North and South Tract and picked up some of our flyers on current and upcoming Refuge activities and programs. In fact, several folks told us that many years back they had been grad students or research interns working at PRR; they related fond memories and expressed renewed interest in returning for visits. Several table visitors noted that they were local legislative aides or members of Howard County government, curious to learn more about the Refuge and what it had to offer area residents.

Exhibits and demonstrations from other groups at this year's Green Spring Fling included:

- A line-up of electric vehicles (EVs), allowing detailed lookovers and conversations with owners. The line-up included open "frunks" (i.e., trunk space under the front hood, where



Photo: OMI Green Team.

Exhibitor tables covered many environmental education topics for families, including "zero waste" concepts.

the engine otherwise would be). Many different makes of EVs were represented (Tesla, Nissan Leaf, Chevy Volt, Chevy Bolt).

- Rain Garden, Pollinator Garden, and Native Plant Garden tours and demonstrations, with opportunities for hands-on planting and maintenance activities.
- Songs with nature and conservation themes, performed by a chorus of children and adults.
- Solar energy utility presentations, including community and individual level participation. The presentations about community solar programs were of particular interest for folks whose homes would not be an easy match for use of solar panels.

Participating organizations included Citizens Climate Lobby, Community Ecology Institute, Howard County Climate Action, and Sierra Club Zero



Photo: Abby Ershow.

Some visitors learned about and then stepped up to help plant native plants.

Waste, among others (24 in all). Event organizers received financial support for the event from a grant awarded to OMI, Inc., through Howard County's Office of Community Sustainability (<https://www.howardcountymd.gov/community-sustainability>). In summary, the Green Spring Fling event in Columbia provided a great opportunity to expand awareness about Patuxent Research Refuge as well as the Friends of Patuxent in a neighboring community. We hope that this article, our efforts, and the creative approaches of these event organizers will inspire more volunteers to participate in such opportunities for PRR! 🌱

Cops and Bobbers Day at Patuxent

by Diana Ogilvie, Park Ranger, Patuxent Research Refuge, USFWS

Local kids and their families enjoyed a lively Community Recreation Day on Saturday, April 15, through a partnership between Patuxent Research Refuge in Laurel, MD and two local Prince Georges County Police Stations. Patuxent volunteers provided additional support, ensuring that the day was a memorable experience for everyone. Featured activities included Cops and Bobbers fishing at Lake Redington, indoor archery, nature walks on the trails, and a picnic lunch prepared by the officers themselves. In all, 40 neighboring families experienced the excitement of catching their first fish, releasing an arrow toward a target, and making a connection with nature. 🌱



Photo: Jason Cangelosi, USFWS.

Summer 2023 in the Hollingsworth Gallery

by Faith Leahy-Thielke, Patuxent Volunteer

Summer's exhibitors this year are exceptionally accomplished and well-recognized professionals whose awards are too numerous to list. We're honored to welcome Jean Phillips in July, Annie Strack in August, and Ron Orlando in September.

Jean Phillips, July's exhibitor, also came to photography the way many seem to do – an early love of nature and the joy of the outdoors. She grew up on a dairy farm in Montgomery County. After graduating from the University of Maryland, she used a science degree to teach and then, to work as an immunologist for NIH for 10 years before returning to the farm to work it and raise her sons. Although she'd received a good camera as a college graduation gift, she didn't have time for it during the next few years. Finally, this member of The Farmers of America – and with a bit more elaborate equipment – had an opportunity to share her enthusiasm for photography and the outdoors with others. Traveling primarily the East coast of the U.S. - and her backyard, she made memorable shots.

After studying at the Smithsonian Annex, Phillips has also worked on the Sugarloaf Trails Association Indian Trailguide, and recorded spots along the C&O canal where native Americans once lived. Her photos have "placed" or won firsts every year since 2009 at the Montgomery County Agricultural Fair; and she has received one Grand Championship award.

A native of Naples, **Annie Strack** was raised on a small island in South Florida where she learned early to swim, sail, and surf. By 14 she had completed the requirements for high school and was taking AP courses and beginning her classical training in art – which included advanced studies

in numerous media. She has become widely known, having won hundreds of awards in national and international juried shows. She is an acknowledged master not only of marine painting, but also of many nature-oriented scenes. She has the honor of being an "official authorized artist" for the Coast Guard.

Strack has hosted and produced a video on painting seascapes in watercolor – her favorite medium, for which she uses washes and glazes. She is also an experienced drafter and has created "renderings" for architects and building contractors. She also works with artist supply companies to "test and review new products."

Strack has exhibited in some 23 solo shows throughout the world and won hundreds of awards. We're lucky enough to admire some of these works "in person" in August.

In September, the paintings of prize-winning, internationally known wildlife artist, **Ron Orlando**, will grace Patuxent's Hollingsworth Gallery. His numerous honors come from juried shows all over the country. Like Strack he's been directed since childhood toward nature and art. His childhood fascination with any living thing in his New Jersey backyard translated early into a love of representing them. While still in high school, Orlando studied oil painting with a local artist, and eventually taught art for 35 years. He "retired" into the world of wildlife painting he describes as a "natural fit." He writes that the wildlife artists he admired all worked in acrylic paint. He describes "mastering the medium" as a "steep learning curve."

Orlando's scenes range from the everyday of backyards to intimate views of predators in the wilds. He works to present a "moment in time" - to establish a connection that respects

the uniqueness, dignity and beauty of wild creatures. Looking at his paintings, the viewer feels drawn into their lives. He's found his subjects on hikes in the hills and swamps of his native New Jersey to travels the length and breadth of North America and to the Galapagos Islands.

This signature member of the Society of Animal Artists and The World Wide Nature Artists Group hopes that someone who views his work will value what he sees and lead to a greater appreciation for "our natural world and a greater responsibility for it." 🌿

Friends of Patuxent is Now on Instagram!

Please follow us [@friendsopatuxent](https://www.instagram.com/friendsopatuxent) to see great photos from Patuxent.

If you'd like us to share your pictures, please message us on Instagram or email us at friendspr@friendsopatuxent.org

Visit us on Facebook and Twitter

<https://www.facebook.com/PatuxentResearchRefuge>

<https://twitter.com/USFWSNortheast/status/78546358377783296>

Dear Friend of Patuxent,

We need your help to strengthen Friends of Patuxent and our support of the Refuge and Science Center. Friends of Patuxent is a volunteer organization, and we seek members who are willing to assist in the following roles.

1. **Board of Directors.** Help to lead the organization.
2. **Bookstore and Nature Shop Volunteers,** including someone with experience in establishing and operating an online store.
3. **Volunteers to assist with programs and events,** such as the Annual Meeting, Pollinator Festival, and Wildlife Holiday Bazaar.
4. **Information Technology (IT) specialists.** We have store and office computers and a website to maintain and keep current.
5. **Committees.** We have several committees that conduct important work of the organization.
6. **Archivist.** To organize and maintain the historical record of Friends of Patuxent.

If you can help in any of the above capacities, or would like more information, please email friendspr@friendsofpatuxent.org or phone 301-497-5789.

Board of Directors
Friends of Patuxent



Friends of Patuxent

Brand-New Walking-stick Medallions and Pins, Now in Our Bookstore & Nature Shop!

Continued from page 11

ABC, CBS, National Geographic and The History Channel, among others.

The Nature Connection: An Outdoor Workbook for Kids, Families, and Classrooms helps children celebrate seasonal changes, whether they live in the countryside, a major city, or somewhere in between. Part field guide, part nature journal, children use it to observe and discover, record, and explore, experiencing nature with their senses: sketch wildlife, observe constellations, collect leaves, keep a weather journal, watch bird migrations. The book is also a great resource for educators/naturalists engaging children ages 6 to 13. Ms. Walker Leslie is a nationally known wildlife artist, author, and educator.

Patuxent's refreshing outdoor trails beckon year-round. When you stop in to explore indoor Visitor Center activities, we hope you'll also save time to browse the unique books, puzzles, games and gifts in our shop, for everyone from tiny tots to grown-ups. We also stock artistic, comfy and clever t-shirts, caps and sweatshirts — and of course, walking sticks for your new Whooping Crane medallions! The National Wildlife Visitor Center and the Friends shop are on Patuxent Research Refuge's South Tract: 10901 Scarlet Tanager Loop; Laurel, MD, and keep slightly different hours: **The Visitor Center's hours are from 9 a.m. to 4:30 p.m., Tuesdays through Saturdays. The Friends' shop is open from 10 a.m. to 4 p.m. on Saturdays, and from 11 a.m. to 4 p.m. Tuesdays through Fridays. (Both closed on federal holidays.)** Friends' members and active Military are eligible to receive a 10% discount on all shop purchases; please remark that status at checkout. Come help us support the missions of Patuxent Research Refuge and the Eastern Ecological Science Center with your purchases! 🌿

Getting to Know the U.S. Geological Survey Northeast Amphibian Research and Monitoring Initiative

Continued from page 4



Photo: Jill Fleming, USGS.

Red-backed salamanders (*Plethodon cinereus*) are one of the most prolific salamanders in the northeast region. Individuals like this are used in mark-recapture studies by USGS and partners to gain information on the spatial patterns of individuals and dynamics of study site populations.

ested habitat. Given these qualities, the species presents an opportunity for educators to provide learners with experiences that allow them to interact with wildlife and observe ecosystems. A core objective of the network is to develop citizen scientist opportunities, science curriculum, field biology courses, and educational materials for nature centers, refuge visitor centers, and zoos.

In addition to expanding the project to answer large-scale ecological questions, we continue to expand methods to accommodate more research partners. For example, while many locations collect mark-recapture using a technique in which different colors of Visible Implant Elastomer (Northwest Marine Technology) are injected under the skin, others are collecting count data from coverboard arrays and/or natural cover transects.

To learn more about Eastern Ecological Science Center's research on amphibians, and other fish and wildlife, visit usgs.gov/centers/eesc. Follow us on Facebook at facebook.com/USGSEESC for the latest updates on our science and ways you can get involved, including events at Patuxent Research Refuge. 🌿



FRIENDS OF PATUXENT BOARD OF DIRECTORS 2023

- Richard Dolesh, *Chair*
- Lowell Adams, *Vice-chair*
- Helen Lowe Metzman, *Secretary*
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- Kirby Rootes-Murdy, *USGS Eastern Ecological Science Center Liaison*

GENERAL COUNSEL

- Benjamin R. Carter, *Legal Counsel*
- Carter Law, LLC, *Beltsville, Md.*

FRIENDS OF PATUXENT BOARD MEETINGS

Friends Board meetings are currently held by Zoom at 4 pm. Dates for Board meetings for 2023 are: January 17, March 21, May 16, July 18, September 19, October 17 (both Board and annual members meeting). Dates, locations, and times are subject to change.

JOIN TODAY!

MEMBERSHIP APPLICATION

Go to <https://friendsofpatuxent.org/Join> to join online!

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

E-mail: _____

(E-mail address will not be sold or shared. It will be used for Friends and Refuge announcements only.)

Phone: (opt.) _____ New Renewal

Individual (\$25/yr) Family (\$35/yr) Contributor (\$75/yr) Sponsor (\$250/yr) Life (\$500) Life-65+ (\$300)

Corporate \$1,000 (includes 1/4-page ad in the Friends newsletter for one year).

Donation \$ _____ payable to "Friends of Patuxent". Mail to: 10901 Scarlet Tanager Loop, Laurel, MD 20708-4011

Credit card No. _____ Exp. Date ____/____/____ Security Code _____

Check here if you would like save a tree by reading our quarterly newsletter online.





Friends of Patuxent

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WE INVITE YOU TO JOIN!

Friends of Patuxent Research Refuge, Inc. is a designated Section 501(c)(3) public charity. It is a membership organization whose mission is to financially support the research of the Eastern Ecological Science Center and the environmental education, outreach and recreational missions at the Patuxent Research Refuge. All contributions are tax deductible to the extent allowed by law. Our Maryland Charitable Organization Registration-2348.

Your membership/contribution helps support the mission and programs at Patuxent. You also receive the following benefits:

- Quarterly newsletter (mailed on request or go to <https://friendsofpatuxent.org/>)
- 10% discount in our Wildlife Images Bookstore and Nature Shop and other area Refuge bookstores
- Attendance at member functions
- Participation in on-site educational programs
- Sense of accomplishment in providing many opportunities for wildlife-related recreation, education and research

(Application on page 19, or go to <https://friendsofpatuxent.org/Join> to join online).