

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



FRIENDS OF PATUXENT

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Behind the Scenes

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

Spring creeps in quietly for many weeks... then bursts into our collective conscience. Thinking about the subtle changes happening on the landscape this season has me reflecting on other behind-the-scenes powerhouses at work on the refuge: our maintenance professionals. Well-maintained infrastructure benefits Refuge visitors and employees alike. The maintenance professionals who carry out this work are doing so year-round, in all kinds of weather, and often in the background.



GAOA team member Jaron Olivarez at work on the Redington boardwalk.

als are coming together from refuges across the North Atlantic region to tackle some big projects that have needed attention for a long time, at Patuxent and other refuges around the zone.

Great American Outdoors Act

This landmark conservation law, enacted in 2020, authorizes the use of up to \$1.9 billion a year in energy development revenues for five years for needed maintenance to facilities and infrastructure at wildlife refuges, national parks, forests, recreation areas, and American Indian schools. US Fish and Wildlife Service (USFWS) gets nearly \$100 million annually in GAOA funding to reduce

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GAOA team member Arthur Yant got to release a monarch on his first day at Patuxent!

Thanks to funding from the **Great American Outdoors Act (GAOA)**, dedicated maintenance profession-

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Behind the Scenes

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the list of deferred maintenance projects on lands across the National Wildlife Refuge System.

To tackle this list of “deferred maintenance” projects that are too big or too expensive for individual stations to complete efficiently on their own, Maintenance Action Teams (MATs) are assembled: groups of Service maintenance professionals who come together to do short-term construction, habitat restoration, and demolition projects that would otherwise go to a private contractor.

Maintenance Action Teams develop skill sets for employees through on-the-job training; they create and strengthen employee relationships; they make the Service more resilient and adaptable as an agency, and they offer substantial cost savings, too.

Last fall, Patuxent welcomed two maintenance workers to its staff thanks to funding provided by GAOA. Arthur Yant and Jaron Olivarez will spend roughly 60% of their time traveling to support projects at refuges across the region as part of a MAT, with the other 40% devoted to repairing or replacing visitor amenities and rehabilitating roads, boardwalks and other critical infrastructure at Patuxent. These GAOA strike force members add capacity to Patuxent’s in-house Facilities team (Tim Anstotz, Keaton Welch, and Facility Manager



Patuxent’s GAOA strike force team members Arthur Yant and Jaron Olivarez (standing), renovating the Lake Redington boardwalk.



Much-needed renovation of the Lake Redington boardwalk is underway, complete with composite decking.

Martin Brockman), allowing them to take on larger and more complex jobs and complete them in less time and at lower cost.

Patuxent projects on the list for completion in 2024 with GAOA assistance are: replacement of the Lake Redington Boardwalk (in progress), replacement of the water tower garage roof, and replacement of the HVAC and roof on one of the Quarters buildings.

Our maintenance professionals truly are unsung heroes, quietly doing work that supports nearly every conservation and recreation activity that occurs on this Refuge. So next time you

stop in at the National Wildlife Visitor Center, see signs installed along a trail, watch wildlife from a boardwalk or drop a line from Cash Lake fishing pier, take a minute to appreciate the level of sweat equity that has gone into maintaining these features. The efforts of our Refuge maintenance professionals ensure that these amenities are accessible for everyone and that all can safely enjoy the beauty and serenity offered at Patuxent.

Learn more about the Great American Outdoors Act (GAOA) at <https://www.fws.gov/initiative/directors-priorities/great-american-outdoors-act>.



Patuxent’s new GAOA strike force members Arthur Yant and Jaron Olivarez with the newly-outfitted GAOA South Zone tool trailer.

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>

Fostering Diversity in Science - Part 2

By Megan Evans, USGS Eastern Ecological Science Center Public Affairs Specialist

In the last issue of this newsletter, we introduced you to Clay Raines, one of the Eastern Ecological Science Center (EESC) scientists who received funds from the Friends of Patuxent (FOP) for diversity internships. While Raines is located at EESC's Leetown Research Laboratory in Kearneysville, WV, Paula Henry, Ph.D., a research physiologist, is located at EESC's Patuxent Research Refuge.

Dr. Henry used her funds to hire an intern to assist with her study of crayfishes in local streams and rivers. Alexi Ebersole graduated with a Bachelor of Science in May 2023 from the University of Puget Sound in Tacoma, WA, with an interest in marine biology. The FOP funding was applied to cover a portion of Ebersole's salary, field trips, and the purchase of chemistry kits needed for aquatic quality monitoring.

Crayfishes are ecologically important as keystone and flagship species and are indicators of the health and quality of freshwater environments. In Maryland, the native crayfish, Acuminate crayfish (*Cambarus Acuminatus*), is a species of special concern as its



Alexi holding New River riffle crayfish (*Cambarus chasmodactylus*).

Photo: Paula Henry.



Photo: Anna Welsh.

Working with samples in the hoop house.

distribution has declined from state-wide to being located only in Montgomery and Prince George's Counties.

The objective of Dr. Henry's crayfish study is to determine the potential effects of aluminum and selenium exposures on female crayfishes' reproductive tracts and hatching success, development, and growth of their offspring. These elements, released into the environment during mountaintop coal mining, can accumulate in sediments and waters of streams and rivers. The data generated are to be applied to assess water quality criteria for the Environmental Protection Agency.

Dr. Henry's research focuses on a surrogate species for two threatened and endangered crayfishes found down river from mining activities in West Virginia and is supported with funding from the West Virginia Department of Environmental Quality. Her study should help evaluate potential risks of exposure and effects to



Photo: Paula Henry.

The hoop house is where the crayfish research is done.

species of concern for the U.S. Fish and Wildlife Service.

As an intern, Ebersole quickly learned how to sample, collect, and identify the crayfishes for the study so that he was able to teach others how to identify and collect fertile female crayfishes in subsequent field collections. "From day one, Alexi assisted in all aspects of setting up a research study, including the building of the facility and preparing tanks and breeder boxes," said Dr. Henry. "He learned to validate water quality meters (e.g., DO, pH, TSD, conductivity) and lab assays for monitoring aluminum, nitrogens, phosphates, and water hardness; he generated data sheets and descriptive statistics as needed and conducted daily crayfishes' observations."

"I believe internships are opportunities to be exposed to as many methods as possible. In addition to the crayfishes, Alexi was taught animal care, feeding and handling for the

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Co-Designing Conservation With (Not For) Communities

By Richard Dolesh, Chair, Board of Directors of the Friends of Patuxent

“This is a new model of conservation decision-making that can produce true community buy-in,” says Patuxent Research Refuge manager Jennifer Greiner about a new planning project for 10 acres of refuge land on the North Tract of Patuxent Research Refuge. “It is a new opportunity to engage the community earlier and more meaningfully in the decision-making process.”

The opportunity she refers to is the chance to produce a new conservation vision for approximately 10 acres of land at the entrance to the Refuge’s North Tract. The land was originally transferred to the Department of the Interior from the Department of Defense as part of the land transfer of almost 9100 acres from Fort George G. Meade to the Patuxent Research Refuge by an Act of Congress in 1991. Under the terms of the transfer agreement, land at the intersection of MD Route 198 and Bald Eagle Drive was permitted by the Refuge to continue being used as recreational ballfields for Fort Meade personnel for decades. In December 2022, their Civilian Welfare League notified the refuge that it had located other fields to play softball and therefore terminated its Special Use Permit, clearing the way for the Refuge – **with** the community – to re-imagine this portion of Patuxent’s landscape.

These serendipitous circumstances now present a fresh opportunity for a new conservation vision for this highly visible and accessible tract of Refuge land. The opportunity is so remarkable that Patuxent Research Refuge has been selected to participate in a



Photo: Stephanie Everett.

new planning and design process that only three refuges across the country have been chosen to participate in. This planning process, called Co-designing Conservation With (Not For) Communities by the principal project leader, Dr. Kayla Cranston of Antioch University, sets out to involve nearby communities before any planning decisions are made.

For those who are knowledgeable about how the U.S. Fish and Wildlife Service does conservation planning, this is very forward-thinking. Dr. Cran-

ston notes that “They are an organization that makes land use decisions on very large-scale lands and projects. They traditionally plan carefully internally, make their decisions, and then let the public know how and why they have decided what to do. The Service has the capacity, knowledge, and expertise to do this and has done so for decades. When decisions are made on how to proceed, they then ask the public to tell them what they think about the plans.”

What is revolutionary about this new planning process is that the decisions are not made upfront, and conclusions are not reached before the public has a chance for input. “This project which also involves urban refuge lands of Santa Ana NWR near Pharr, TX, and transitional FWS urban refuge lands near Providence, RI, came about because the traditional conservation planning approach just doesn’t work as well for urban refuges as the co-design process, especially when the demographics of populations who visit these refuges does not match the demographics of those who live in communities around the refuges,” Cranston says. Patuxent refuge manager Jennifer Greiner agrees. “We believe this will lead to better engagement with our communities and neighbors around the Refuge and that it will tell us how we can serve our neighbors better. We also believe that it will allow us to gain input from all voices, especially those who have not historically been heard from before.”

Greiner notes that these ballfields were a grandfathered use of refuge lands. “We now have an opportunity to

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Highlights from the USGS Bird Banding Lab 2023 Fall Migration Station

By USGS Eastern Ecological Science Center Bird Banding Lab

The Bird Banding Lab (BBL) at US Geological Survey (USGS) Eastern Ecological Science Center (EESC) recently wrapped up the 40th banding season at the migration monitoring station on U.S. Fish and Wildlife Service's (USFWS) Patuxent Research Refuge. Operating since 1979, this station monitors migrating land birds using the Refuge to rest and refuel. The team, consisting of USGS staff and volunteers, operated the station for a total of 42 days, mid-August through mid-November 2023. This season 2,401 new birds were banded, and 712 previously banded birds were recaptured representing 76 species. This is the highest number of newly banded birds at the station in the last 15 years!

Species Highlights from 2023

Along with big capture numbers, team members also banded several uncommon species that they have not banded at station in several years or more, including:

- The station's first banded Yellow-throated Vireo since 2016
- The first Baltimore Oriole banded since 2012
- The second banded House Finch at the station in the last 25 years, with the other individual having been banded just last year in 2022
- Most surprising, the first bandings of several Eastern Bluebirds since 2001

Notably, the station also banded the 2nd largest number of Cape May Warblers in the 40 years the station has operated. The station banded a whopping 15 Cape May Warblers in



Photo: Public Domain.

The Yellow-throated Vireo is an uncommon visitor to the BBL's Fall Migration Station - this is the first one since 2016!

2023 – while only 24 individuals were banded in the previous 15 years! Based on information from other banding stations and birdwatchers, this species saw a significant irruption into the mid-Atlantic region.

The station also saw a significant increase in recaptures of birds banded at the station in previous years. The oldest recaptures were two Red-eyed Vireos, one of which was banded 10 years ago and the other 7 years ago! These individuals help us better understand how individuals use the station's habitat long term.

A Year of Changes

This season brought several changes to the banding station. [The station explores how birds utilize the maintained area under transmission powerlines during their migration.](#) In 2023, the dense shrubby habitat under the powerlines was beginning to become too congested so the vegetation was thinned out to access critical areas of the powerline right-of-way. The thinning resulted in an expansion of the net lanes from 3 feet to 8 feet wide,



Photo: Megan Evans.

Examining the Wing of a Blue-headed Vireo.



Photo: Daniel Rauch.

The Happiness A Whole Lot of Birds Brings.

along with several additional cross-sections cut throughout the right-of-way. It is possible this and other similar cuts nearby may have contributed to the high capture totals.

In August 2023, with a generous donation from the Friends of Patuxent organization, the BBL's migration monitoring station received a much-needed upgrade to its bird processing center, including a new pavilion with picnic tables, and shed. Although the net locations have not changed since 1979,

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Where Are They Now - David Dolton?

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

David Dolton came to Patuxent in January 1976 and joined the Office of Migratory Bird Management (later becoming the Division of Migratory Bird Management) as the Service's Mourning Dove Specialist. His office was on the second floor of Gabrielson at a time when the management office of the US Fish and Wildlife Service (FWS) had a major presence in Gabe Lab and on campus. David's primary duties included coordinating an annual nationwide mourning dove survey, preparing status reports and presentations for meetings, and helping prepare Federal Register documents.

David was well prepared for the job after receiving his BS and MS degrees in Wildlife Science at Texas A&M and conducting his thesis studies on white-winged dove feeding habits and flight patterns in South Texas and northern Mexico. David also worked summers with the Texas Parks and Wildlife Department and had a six-month appointment with the USFWS at the Aransas National Wildlife Refuge (NWR) in Texas.

While at Patuxent, David coordinated all the field work for a nationwide dove nesting study initiated in 1978 and was one of the authors of the final report ("Mourning Dove Nesting: Seasonal Patterns and Effect of September Hunting"). This was a critical investigation because the potential of increased hunting in the early fall meant that adult doves could be killed during the nesting season, which is exceptionally long for mourning doves.

While at Patuxent, David coordinated the Webless Migratory Bird Research Program from its establishment in December 1994 and continued the program when he moved to Denver, Colorado in 1995. He also assumed responsibilities for white-winged dove management. When David left Patuxent, Ms. Becky Rau assumed



David Dolton examining dove wings at USFWS "Wingbee," 2005.



Becky Rau and David Dolton, 2009.

the responsibility of coordinating the mourning dove survey, while David remained the senior author of the status report. David also was an editor with Paul Padding on the 2002 publication "Harvest Information Program: Evaluation and Recommendations" and a member of the National Mourning Dove Planning Committee that

Photo by David Dolton.



David Dolton releasing banded dove, 2008.

Photo by David Sharp.



David Dolton and Mary Ann McKeogh.

prepared the 2003 report "Mourning Dove National Strategic Harvest Management Plan."

In 2003, David became a volunteer with the Colorado Division of Wildlife (now Parks and Wildlife) and the Hunter Outreach Program. As a "Hunt master," he led weekend deer hunts for youths annually from 2003 to the present. On the hunts, he would give talks about the factors biologists use to manage wildlife populations (e.g.,

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Missing Gravestone Returned to North Tract Cemetery After Missing 50+ Years

By Dennis Green, Former Volunteer, Cultural Historian

The Patuxent Research Refuge is noted for many things, e.g. research, conservation, education programs, and more. There is another aspect of the Refuge that not many are aware ...the cultural side. This would include information about previous land owners, old schools, churches, military history, and cemeteries. It's known that the South Tract has at least two cemeteries, the Central Tract has two, possibly more, and the North Tract has 16 + cemeteries. There is more information available about cemeteries on the North Tract.

In November 2023, Mr. George Treas, III was walking his dog one day in the woods near Curtis Bay when he discovered a tombstone. He contacted the Anne Arundel County's Planning & Zoning's Cultural Resources Division who contacted the Anne Arundel Genealogical Society. Tina Simmons, their cemetery coordinator, invited me to meet up with her and Mr. Treas. He took us to the tombstone in a heavily overgrown section of the woods, face up, and with a very legible inscription. The stone's base was missing. The name was Martha Mullikin, 1822-1897, wife of Benjamin O. Mullikin. We arranged to get back with George when we had more information. Our research indicated that there were no Mullikins in the Curtis Bay / Ft. Smallwood area and the only known Mullikin cemetery was on the Refuge, 20 plus miles to the south. How did this tombstone get there? Further research concluded Martha's stone was one of two tombstones which had been missing from the Mullikan family cemetery on the North Tract. The other was for Martha's husband, who was buried in the family cemetery on the North Tract and had been missing more than 50 years. Scouts Andy Watcher in 1977, and



Photo: Dennis Green.

Chris Hileman in 1988, both reported that no tombstones were found while working on their Eagle Scout badges. Rick McGill's booklet only mentions a few fieldstones. A member of the Anne Arundel Genealogical Society had, at an unknown time, copied the information from both Martha's & Benjamin's tombstones. The property owner of the wooded lot where the tombstone was found was tracked down and contacted by phone. Permission was granted to move the stone. We removed the stone from the woods around Thanksgiving and put it in storage until the Refuge granted permission to return it to the cemetery. After two rain-delayed attempts in December, Martha's stone was finally returned to its proper place.

More questions remain: 1) how did the stone get to the wooded site near Curtis Bay; and 2) how long has it been missing from the cemetery? We can only account for time since 1977. An obituary for Martha's husband stated

that he was buried in the family burial ground and his wife Martha was buried next to him. We now have Martha's tombstone but where is Benjamin's?

I would like to thank the folks from the Refuge, especially Josh Emery Fish and Wildlife Service (FWS), for taking us to the Mullikin cemetery and assisting with its placement. A special thanks goes to Mr. George Treas, III whose strong interest in history started this whole process. For more information, contact the Anne Arundel Genealogical Society. And, if you know where Benjamin O. is buried, I would like to hear from you. 🌿

Thank You Donors of 2023

We sincerely thank the foundations, funds, and many individuals for donations totaling more than \$43,000 in 2023. Your dedication to Friends of Patuxent allows us to continue supporting research, wildlife conservation, and education at the Patuxent Research Refuge and Eastern Ecological Science Center. Please note our accomplishments published on the Friends of Patuxent website (<https://friendsofpatuxent.org>).

THANK YOU!

Board of Directors,
Friends of Patuxent.

**Friends of Patuxent
thanks The Metzman
Family Tzedakah Fund for
its generous donation.**

On a Golden Wing and a Prayer: Your Actions Can Give Birds a Better Chance of Surviving Migration

By US Geological Survey (USGS) Eastern Ecological Science Center (EESC) Bird Banding Lab

Although we may feel worlds apart, we are connected by migratory birds. In turn, migratory birds are connected to us and directly affected by our actions.

Bonnie poured herself another cup of [sustainably grown coffee](#) from Nicaragua and inhaled the rich aroma. The morning news softly droned in the background with tales of the Green Bay Packers draft picks. As she pondered her upcoming lunch with friends, she heard a loud thump on her kitchen window and saw feathers stuck to the glass. She hurried outside to investigate. On the ground lay the most beautiful bird she had ever seen in her 80 years of Wisconsin living. His black mask was striking next to his yellow cap and wings. Until that morning she had never realized she was living among such splendid, colorful birds. Her heart sank as she realized this beautiful golden-winged wonder no longer shared her world because of a simple thing: her window. Bonnie immediately decided to do whatever she could to stop [future bird collisions](#) with her windows and tell her friends to do the same!

That same morning, but almost 2,000 miles away on a former Nicaraguan coffee plantation, Liliana Chavarría-Duriaux, pondered the preparation of her season's bird banding data. Often referred to as "Dona Lili," she is a lead-



A banded Golden-winged Warbler, that died as a result of a window collision.

Sources/Usage: Public Domain.



Lili Chavarria-Duriaux, operator of the MOSI (Monitoring Overwintering Survival) station at El Jaguar Reserve in Nicaragua, banding a White-winged Tanager (*Piranga leucoptera*). Dona Lili has coauthored two field guides to the birds of Nicaragua and was the recipient of the 2018 Partners in Flight Public Awareness Award.

er in Central American bird research. Almost three and a half years earlier, Dona Lili had held and admired that same, beautifully masked bird as she attached a small numbered, silver band to his tiny leg in El Jaguar Reserve, a [private reserve](#) in the cloud forest of Nicaragua.

Every migratory bird that strikes a window is an unfinished story. Their spring songs are silenced, their bright jeweled feathers are absent, and the next generation is lessened. However, because this bird was banded, we can learn more about its life before it was lost to window collision.

Sources/Usage: Public Domain.

Bird Banding Data Helps Tell This Bird's Story

Reports of banded birds that have collided with windows are not uncommon for the [U.S. Geological Survey's Bird Banding Lab](#), the agency that manages bird banding in North America in coordination with the [Canadian Wildlife Service's Bird Banding Office](#). However, the loss of this particular bird immediately caught the attention of Bird Banding Lab staff; it was the first time a banded Golden-winged Warbler was reported to have hit a window and this species is in trouble, with severe population declines across its range.

Bird banding data is rich with details that give us a better picture of this bird's life from when it was banded by Dona Lili to when it was recovered by Bonnie. Because Dona Lili banded this individual as an adult bird, we know that he was at least five years old at the time of the collision.

Through the banding data and the encounter records submitted by the pub-

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Golden-winged Warbler banded on November 6, 2019, in El Jaguar Reserve, Jinotega, Nicaragua.

Sources/Usage: Public Domain.

On a Golden Wing and a Prayer: Your Actions Can Give Birds a Better Chance of Surviving Migration

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lic, we can get a glimpse into the life of a bird during breeding, migration, or wintering. If a bird is recaptured at another banding station or observed by the public we can collect vital information, such as sex, age, fat content, morphological measurements, seasonal and temporal differences, regional and migratory flyways patterns, among other factors, such as how it died like this bird collision. If you see a banded bird from a collision or at any other time, alive or dead, please report it using www.reportband.gov. Your reports will help the USGS Bird Banding Lab track movements or the final outcomes of these birds!

Up to one billion birds are killed each year in the United States due to [collisions with glass](#), and many birds can die during mass collision events, one of which recently occurred in [Chicago](#) when 1,000 birds struck one building, over one night. While some collided birds are banded, many are not. This Golden-winged Warbler provides a small glimpse at the huge problem of window collisions for birds.

Dona Lili, and her husband, George Duriaux, are the operators of a “MoSI” bird monitoring station at El Jaguar Reserve where they combine habitat conservation and bird research with the production of Rainforest Alliance sustainable coffee. MoSI, named for the Spanish acronym for “Monitoring Overwinter Survival,” is a network of bird monitoring stations across the northern neotropics that monitors populations of migratory birds that depend on these areas during the non-breeding season, such as the Golden-winged Warbler, as well as birds that stay in the neotropics year-round.

Established in 2002 by [The Institute for Bird Populations](#) (IBP), the MoSI program helps gather critical data across the full annual cycle of birds,

helping researchers and land managers to understand what drives or limits populations, and where and when to direct conservation efforts. Stations are operated by independent banders, conservation non-profits, local universities and government agencies using a standardized mist-netting and banding protocol modeled after IBP’s Monitoring Avian Productivity and Survivorship (MAPS) program. Dona Lili and her team have been partners in the MoSI program since its inception more than 20 years ago and even hosted several of IBP’s training programs to kick off the MoSI program in 2002 and 2003.

Sadly, this Golden-winged Warbler is not the first bird banded at El Jaguar Reserve in Nicaragua to later die from a window collision. A Wood Thrush banded on Valentine’s Day 2011, struck a window and died in Bucks County, Pennsylvania several months later, after [migrating north to nest](#).

You Can Help Birds With the Solution

The populations of Golden-winged Warbler, Wood Thrush and many more species are rapidly declining. The Golden-winged Warbler has experienced over a [70% population decline](#) in the last 50 years and the [Wood Thrush has experienced a 60% decline](#). Though many factors contribute to population declines, collisions with glass are the third greatest threat to birds next to habitat loss and cats.

Birds often fail to see glass as an obstacle and collide with windows when they fly towards natural reflections of habitat, like sky or plants. Birds are also attracted to lights shining through windows or from nearby porches and yards. Although some birds may seem fine after a collision with glass, many may die later from head or other injuries.

Fortunately, you can help change the story endings for birds like this Golden-winged Warbler and Wood Thrush



Residential window with bird-safe window bird collision deterrents applied.

by helping reduce bird collisions with windows at building where you live and work. There are simple, inexpensive, and attractive ways to help prevent bird collisions by making windows more visible to birds. To be effective, window patterns should include at least a 2-inch by 2-inch grid on the outside of windows. For low-cost, temporary methods, individuals can make and hang a paracord bird curtain or create decorative patterns using tempera paint and stencils. For more long-term solutions, individuals can consider using dense decal markers (such as dots), external, or “fritted” glass that includes exterior patterns to make the glass visible to birds). For more information on solutions, see [here](#).

A version of this article previously appeared at <https://www.usgs.gov/labs/bird-banding-laboratory/news/fall-migration-station-2023-wrap>

To learn more about USGS Eastern Ecological Science Center’s research on fish and wildlife from headwaters to oceans, visit usgs.gov/eesc. Follow us on Facebook at <https://www.facebook.com/USGSEESC> for the latest updates on our science and ways you can get involved, including events at Patuxent Research Refuge. 🌿

Spring Arrives at the Friends of Patuxent Bookstore

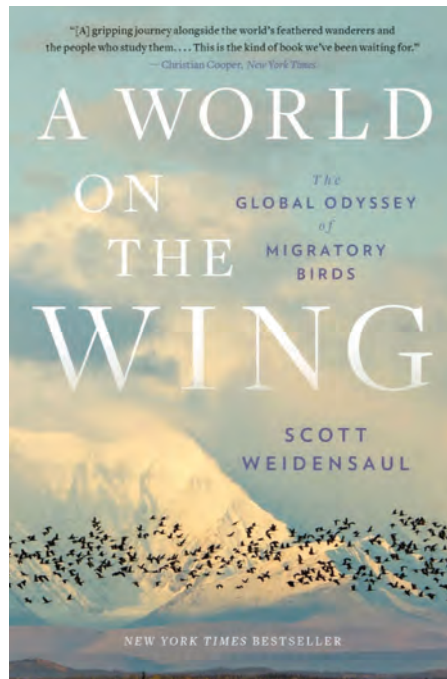
By Hank Dahlstrom, Bookstore Volunteer

“There is something infinitely healing in the repeated refrains of nature – the assurance that dawn comes after night, and spring after winter.” Rachel Carson, *Silent Spring*

I find myself watching for the first signs of spring, to be assured that the long, dark days of winter will soon be behind us. There are the burgeoning tree buds, early crocus, and flickers drumming on the roof. As spring arrives, we know the warmer weather will draw more visitors to the Refuge. Folks will come to hike our trails, look for spring ephemerals, listen for a wood frog chorus, and watch for migrating birds. We at the bookstore are ready to enrich these outdoor experiences with field guides and other books, hiking sticks, nature-themed games, tee-shirts, mugs, note cards and so much more!

For example, our large section of books about birds includes field guides, large and small, and an assortment of other informative volumes. Among them are *A World on the Wing: The Global Odyssey of Migrating Birds*, a very popular tome by Scott Weidensaul that talks of the vital importance of stopover sites on flyways around the world. His book holds a wealth of information and bird facts. Did you know, for example, that the Bar-Tailed Godwit holds the record for the longest nonstop flight of any land bird, traveling 7200 miles across the Pacific from its nesting site in western Alaska to New Zealand?

The Bird Way, a New Look at How Birds Talk, Work, Play, Parent and Think, is by Jennifer Ackerman, a favorite of mine whose writing is always easy to read and filled with surprising information. *The Secret Perfume of Birds, Uncovering the Science of Avian Scent*, is by Daniel Whittaker, who discovered that contrary to myth,



birds do have a sense of smell. They also emit chemical signals that influence many aspects of their behaviors. Did you know that Juncos smell like moss, and auklets like tangerines? The book is part memoir, part science, and part philosophy, covering the importance of smell in our world and also the difficulties and sometimes hilarious roads scientific research can take.

Would you like to introduce a child in your life to the joy of birdsong? *The Little Book of Woodland Bird Songs*, by Andrea Pinnington and Cuz Buckingham, has descriptions and actual birdsong recordings of twelve common birds that can be played by a push of a button. Also for our young friends are board books such as *Birding for Babies*, by Chloe Goodheart and Gareth Lucas. *My Friend Earth*, written

by Patricia MacLachlan, illustrated by Francesca Sanna, is a beautiful work of art as well as a book with an environmental message for children.

For the upcoming Wild Bee and Flower Festival that will be held here on May 11, we also have many relevant books. *Attracting Native Pollinators: The Xerces Society Guide, Protecting North America's Bees and Butterflies* is a comprehensive volume about pollinators and how to take action to welcome them to various habitats. *Pollinators of Native Plants: Attract, Observe and Identify Pollinators and Beneficial Insects with Native Plants*, by Heather N. Holm, takes a comprehensive look at the relationship between pollinators and native plants. In addition, we have books devoted to native wild bees and how to support them.

The bookstore also has blank journals, lined and unlined, and books about nature journaling. Spring is a perfect time to begin recording what you find while exploring the outdoors. Artist and educator John Muir Laws explains that “Nature journaling will enrich your experiences and develop observation, curiosity, gratitude, reverence, memory, and the skills of a naturalist.” It’s a pastime I personally enjoy and highly recommend.

As you can see, the FOP bookstore has a wealth of items to enhance your own love of nature or to give to friends and family. With Earth Day, Mother’s Day and Father’s Day coming up soon, we encourage you to visit us to choose your gifts. Of course profits directly support Patuxent Research Refuge and Eastern Ecological Science Center. 🌿

WE APPLAUD AND SALUTE OUR VOLUNTEERS

Spring 2024 in the Hollingsworth Gallery

By Faith Leahy-Thielke, Patuxent Volunteer

The “flowers that bloom in the spring” will hardly be competition for the amazing exhibits displayed in the Hollingsworth Gallery this spring. In April, a notable and distinguished group of six bring “Nature Through Women’s Eyes.” These talented photographers include: Jane Gamble, Beth Howell, Jane Marsh, Rena Schild, Elaine Starr, and Kathrin Swoboda. Stop by Saturday, April 6th from 1-3 p.m. to meet and greet them at their reception. In May, globe-trotting photographer, Bill Reichardt returns. A special reception is planned for him. Last, but hardly least, artist and art educator Laura Wolf will share her exquisite paintings in June.

Alexandria’s **Jane Gamble** organized her friends and fellow photographers to participate in April’s group show. She describes herself as a passionate birder whose new focus is “ethical” wildlife photography enjoining – even well-meaning people with cameras – to consider first the well-being of wild creatures and never disrupt their lives for a shot. Gamble and her husband worked for the State Department for many years. Home now is a neighborhood in Alexandria where her ecofriendly (personally created) backyard and local parks like Greenspring Gardens provide perfect venues. The winner of numerous awards including Fairfax County’s Ellie Doyle award, she has donated her professional quality photographs to the Park Authority’s Public Information and Resource Office. Although birds may be her favorite subjects, a squirrel photo won the *Washington Post*’s squirrel week contest in 2020 – Gamble caught him reaching for crepe myrtle blossoms.

Beth Howell, an engineer turned artist, a photographer and editor, is a native of northeastern Pennsylvania. She attributes her deep love of and respect for nature to her father. Camping

“Nature through Women’s Eyes”

Don’t miss this stunning exhibit which runs from April 2-30 with a free public reception in the Hollingsworth Gallery on Saturday, April 6, 2024.



Cliff Swallow by Jane Gamble.



Great Gray Owl by Beth Howell.



Indigo Bunting by Rena Schild.



White-tailed deer fawns by Jane Marsh.



Green frog and grasshopper by Elaine Starr.



Ruby-throated Hummingbird at Salvia by Kathrin Swoboda.

outdoors across the country as a child and visiting national parks on vacations reinforced her love of nature. In retirement, photography has enabled her to share images of nature which she hopes will enhance the viewer’s appreciation and determination to protect our land’s natural world.

Jane Marsh is a self-described “ancient Brit” who has lived in the U.S. since 1988 – Texas, Michigan, Maryland, and presently, next door

to Shenandoah National Park in Front Royal, Virginia. Visiting friends from the U.K. asked to visit beautiful locales with “abundant feathered friends.” Shenandoah National Park nearby provided the challenge for viewing and photographing them. Her favorites are Cedar Waxwings and Eastern Bluebirds, but her proximity to the park provides “ample opportunity” to catch its other inhabitants and its gorgeous landscapes.

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Co-Designing Conservation With (Not For) Communities

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reimagine how they can best be used to benefit the public and wildlife.”

The Co-design process for the Patuxent Research Refuge will last about 24 months and involve several stages that will build on initial actions. The first actions are to identify collaborators and interested voices from the community. These include interested citizens, groups, and influential voices in the community. This will be followed by a series of focus groups conducted with residents and groups within the community, and one or more community listening sessions. All this input will lead to development of recommendations to guide the design of this corner parcel going forward.

Stephanie Everett, (a long-time volunteer at Patuxent Research Refuge and resident of Anne Arundel County) who will be one of the voices from the community representing the Friends of Patuxent in the planning process, says, “I am looking forward to seeing how this develops and how successful we are in gauging the interest of communities, especially those who have not been well connected with the Refuge.” Stephanie notes how many residents of local communities near the Refuge



Photo: Stephanie Everett.

have a common refrain: “We have lived here for years, and I didn’t have any idea that this place was here.” She says “I think it is important for people to learn what is here and why we protect it. If we don’t, people won’t come to know it and love it and care about it. They won’t care if it is protected for the future.” She also hopes that this process will lead to recruiting some new volunteers for the Refuge and the Eastern Ecological Science Center which is located on the Refuge. She encourages all the Friends members and Refuge volunteers to help get the word out about this process. “You never know who somebody might know who will be interested.”

The Friends of Patuxent will actively participate in the Co-Designing Conservation With (Not for) Communities project and report on its progress throughout the process. If you would like to learn more about this project, please contact Rich Dolesh, board chair, at dolesh@gmail.com 🌿

Fostering Diversity in Science- Part 2

Continued from page 3



Photo: Paula Henry.

New River riffle crayfish (*Cambarus chasmodactylus*).

waterfowl and raptor colonies at the Patuxent Research Refuge,” said Dr. Henry. These skills allowed him to assist on days when the animal care team was short staffed. On another occasion, Alexi assisted on a stream - salamander field project as part of the Northeast Amphibian and Reptile Monitoring and Inventory (ARMI) group, led by another EESC scientist, Dr. Evan Grant.

On the topic of diversity in science, Dr. Henry observes, “I believe it is critical for underrepresented students to not only become engaged and participate in the scientific process, but also for them to become leaders in the sciences. Many current and future predictions, such as those related to climatic change, are known to ‘target’ underserved communities the hardest. We need voices from all sides to generate the best ideas and solutions in science and elsewhere. Finally, I strongly believe we need more research scientists working within the federal system to produce unbiased data - with the purpose of addressing global, national, and tribal environmental issues for the future. For all this to proceed, it is critical to reinforce abilities and potential of underserved students to succeed, by sparking their interest in the sciences.” 🌿

Docents Needed: Kids' Discovery Center

Would you enjoy helping young children and their adults have a great time exploring wildlife educational activities together? We’d like to be able to open the Kids’ Discovery Center (KDC) for more hours but need more volunteers to make that possible. The KDC is currently open from 9 to 12 noon, Tuesdays through Saturdays (closed on federal holidays). We’re getting requests to add some afternoon hours. Our program activities are



geared for children ages 3 to 10. Children explore the activities with their accompanying adult, but questions can arise, and activity stations need sanitizing, refreshing, and restocking between participants. For more info on this opportunity and questions about training, call the Visitor Center front desk at 301-497-5772 (Tues.-Sat., 9AM-4:30PM), and leave a message for Barrie.

Spring 2024 in the Hollingsworth Gallery

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Rena Schild describes photography as “a reflection of how she sees the world” and her “love of nature.” Having a camera in hand has opened up a wide variety of experiences for her – which she describes as a “must” that is enjoyable for her and the subjects. Originally from New York, Schild has flourished here with her sensitive and lively work. Wildlife on the East Coast will be her contribution to April’s exhibit.

Elaine Starr is based in northern Virginia. She was a part-time photographer when her day job was at the Department of Defense. Retirement opened a new chapter of her life “capturing the beauty of nature in parks” – from the Potomac River to the Shenandoah. She wants to “tell a story” with her photos that reminds us how important it is to protect the natural world. Some of her work has been published in local magazines and websites – images of parks in Maryland and D.C.

Kathrin Swoboda makes her home in Vienna, Virginia where she started photographing hummingbirds, bluebirds, woodpeckers, and a great variety of birds in her backyard about 8 years ago. Prowling nearby Huntley Park in midwinter, she snapped a Red-winged Blackbird making all kinds of noise. This image won the Grand Prize of the 2019 Audubon Photography Awards. Afterwards she started her flourishing photography business. Swoboda develops her own prints and mats and frames those images herself. Her work has been widely exhibited in the Art League and the Torpedo Factory. An amazing group with amazing images.

As a kid, **Bill Reichhardt** lived in many places all over the world – stationed with his military family. As an adult he worked as an attorney in Virginia, but “retired” to Annapolis where

he still “checks in” if he’s not in the Chesapeake Barrier Islands, Maryland’s state parks, Ecuador, Belize, Zimbabwe, or Botswana! We do know that his latest work will be on display here at Patuxent in May. He writes that for this exhibit, he’s chosen as a theme, “birds in flight.” He plans to include raptors, ducks, hummingbirds, egrets, and songbirds – a variety from the Chesapeake region. Reichhardt also plans to include some images from East Africa photographed during his two trips there in 2021 and 2023. These could include lions, elephants, leopards, and some unusual birds. He’s been experimenting with showing photos in groupings that will tell a story like the photo essay about the African wild on his website. Sounds like the “backstories” would be exciting to hear from Reichhardt himself.

Laura Wolf our June artist describes herself as an elementary art teacher, artist, birder, pun enthusiast and singer (in the Baltimore Choral Arts Society). She teaches K-5 in a Howard County Elementary School. She obviously loves her job – not only helping students produce their own art, but introducing them to the creations of working artists. Wolf visits local parks, mostly Maryland, Delaware and Pennsylvania, and snaps photos for reference for her exquisite bird paintings. She’ll wander in refuges, gardens and even zoos observing (“with the greatest care”) their “peculiarities” and distinctions – what makes a species unique. Wolf writes that in the last five years, her focus has shifted, and she has become an impassioned bird-watcher. Her bodies of work are themselves distinctive: acrylics on panels or canvas – detailed gouache – traditional with “fully developed backgrounds.” Other works in ink or digital illustration are sparser – focusing on patterns and textures – and may contain puns and jokes. Her work has been accepted for display at the American Artscape (Bazaar) and at the Columbia Art Center. And at Hollingsworth this spring. Wow! 🌿

Highlights from the USGS Bird Banding Lab 2023 Fall Migration Station

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Field Sparrow.

Photo: Megan Evans.

the bird processing area had previously seen gradual improvements. Initially birds were processed on just a small metal table (now completely rusted out!). From the early 2000s to 2022, the team operated out of a small table, with limited storage built underneath and a modest roof. The 2023 upgrades allow birds to be processed more efficiently and visitors to observe but not interrupt the banding process.

The new bird processing center will facilitate increased educational opportunities that will further highlight value of migration bird banding at USFWS Patuxent Research Refuge. And this new space was just in time for the lab’s biggest banding year in 15 years!

To see the complete list of banded birds, visit [Fall Migration Station 2023 Wrap-up | U.S. Geological Survey \(usgs.gov\)](https://www.usgs.gov/labs/bird-banding-laboratory/news/fall-migration-station-2023-wrap-up).

A version of this article previously appeared at <https://www.usgs.gov/labs/bird-banding-laboratory/news/fall-migration-station-2023-wrap>

To learn more about USGS Eastern Ecological Science Center’s research on fish and wildlife from headwaters to oceans, visit [usgs.gov/eesc](https://www.usgs.gov/eesc). Follow us on Facebook at <https://www.facebook.com/USGSEESC> for the latest updates on our science and ways you can get involved, including events at Patuxent Research Refuge. 🌿

New Faces at Patuxent

By Diana Ogilvie, Park Ranger, Volunteer Coordinator

Sasha Azeez - Meet Sasha Azeez, the new Park Ranger at Patuxent Research Refuge. She's a graduate of the University at Buffalo and received her B.S in Environmental Science. She started her journey with the service as a Natural Resource/Visitor Services Intern at the Iroquois National Wildlife Refuge (NWR) in NY, through the Hispanic Access Foundation. After a year and seven months as a Natural Resource/Visitor Services Intern she was hired to be a Park Ranger at the Northeast Regional Office in Hadley, MA. She was in that position for two years and eight months before moving to Sudbury, MA to be a Visitor Services Specialist at the Eastern Massachusetts National Wildlife Refuge (NWR) Complex. She started at Patuxent in late December.



Sharon Dorsey - Meet Sharon Dorsey, our Urban Community Engagement Intern! A native of Baltimore, MD she joins us after recently completing her M.S. degree at Virginia Tech and researching the endangered piping plover in Long Island, NY. Sharon is an avid hiker and birdwatcher and an aspiring naturalist. She has a strong passion for working with under-represented communities in the natural resources field and advocating for greater representation within the outdoor recreation industry. Her autobiographical documentary on her experience as a budding Black field researcher and her short story in *Been Outside: Adventures of Black Women, Nonbinary, and Gender Nonconforming People in Nature* are examples of that. Although she is in a temporary position, Sharon plans to



stay involved in refuge activities following the completion of her internship.

Joshuah Emery – New Park Ranger Joshuah grew up in a little town in Pennsylvania with cornfields and cows. Yet, his heart was in the mountains. He spent his free time avoiding rattlesnakes and swimming in ponds with newts on Catawissa Mountain. After high school, he had an itch to travel and enlisted in the US Navy. When his military service was complete, he reawakened his childhood wonder on the Appalachian Trail. Reflecting on the transformational journey he pursued higher education leading to a degree in Experiential and Outdoor Education at Western Carolina University (MS 2023). Over the last 5 years, he has focused on cultivating nature connections by building a foundation of awareness in ecology, community, and self. Josh has instructed adventure sports and facilitated team building with Calleva and Brenton Woods. He has led nature-based camps with Ancestral Knowledge and Appalachian Expeditions and occasionally moonlights as a forest bathing guide with Malama Honua Healing. From wilderness skills to community building Joshuah's excitement is contagious.



Keaton Welch – Keaton Welch, new facilities team member onboarded last fall with our Facilities program and is beginning his career with the US Fish and Wildlife Service (FWS), having recently moved from seasonal employment at Mattamuskeet Wildlife Refuge in Swanquarter, NC. Keaton transitioned from the National Park Service (NPS) where he'd worked since his first job in 2006 with the Yellowstone

National Park (NP) Youth Conservation Corps (YCC) program. From YCC, Keaton joined the trail crew at Point Reyes in CA. Keaton finished his time with the NPS as a Law Enforcement Officer (LEO) working in Rocky Mountains, Mount Rushmore, and finally as a backcountry LEO in Yellowstone National Park.

Keaton is looking forward to exploring the Chesapeake Bay and Mid-Atlantic area with his wife, Vicky, and 1 year old daughter, Piper, discovering the unique characteristics that the Patuxent landscape has to offer.

Jaron Olivarez - Jaron has joined USFWS as a Maintenance Worker with the Region's Great American Outdoors Act (GAOA) Strike Force Team, stationed here at Patuxent Research Refuge! Jaron was born and raised in Corpus Christi, Texas, where he enjoyed spending summers helping his Grandma at her Western National Park Association bookstore at the Fort Davis National Historic Site. During those early years, Jaron spent a lot of time with rangers who influenced his curiosity and love of the outdoors. His career in conservation began with the Youth Conservation Corps at Fort Davis, after which he was hired back as an emergency hire during the pandemic. Over the following three summers, Jaron served as a seasonal maintenance worker for the National Park Service, including at Big Bend National Park as a requested aid due to a fire. His first permanent position was at Carlsbad Caverns National Park in New Mexico, where he worked for a year and a half. During that time,



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New Faces at Patuxent

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Jaron adopted two cats, one from a Corpus Christi rescue shelter (Nova) and the other from the parking lot of Carlsbad Caverns (Zora). Nova, 6 months at the time, had some gnarly damage to her tail and it had to be removed at the shelter; Zora was found as a 2-week-old kitten crawling around the Visitor Center parking lot. Both happy cats made the long road trip to Maryland, testament to the fact that Jaron is 100% an animal person.

Tim Anstotz – Tim, a new member of the Facilities team, is a Marine Corps veteran. Originally from New Jersey, he recently moved to Maryland from North Carolina with his wife (also a Marine) and their three small children. Tim enjoys spending time with family, being outside, and playing and watching a variety of different sports.

Arthur Yant - Mr. Arthur Yant has joined USFWS as a Maintenance Worker with the Region's Great American Outdoors Act (GAOA) Strike Force Team, stationed here at Patuxent Research Refuge! In 2016, Mr. Yant began his career as a commercial driver with Yant trucking, LLC in support of the department of transportation. In this role, he held the position of an Owner Operator. In 2020, Mr. Yant went on to build and renovate houses. In 2022, Mr. Yant worked with National Park Service as a Maintenance Worker. A premier public servant, Mr. Yant continues his professional commitment to the mission and core values of the Department of the Interior. Mr. Yant is married (Christiann), with four children (Alanni, Gianni, Tristan, & Zaiden). Mr. Yant is a former Prince George's Community College Alumnus, and is certified with both a commercial driver's license (CDL) and OSHA Forklift. On his very first day of work here, he got to release several adult monarch butterflies. 🦋



Around the Refuge

Photos by Matt Beziat, Volunteer.



Rieve's Pond (North Tract)



Snow At Cash Lake (South Tract)



Bitter Oyster (North Tract)



Hexagonal-Pored Polypore (North Tract)



Cash Lake Trail (South Tract)



Bailey Marsh (North Tract)



Sunset At Cash Lake (South Tract)

Early Visitor Center Planning - Part One

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

Planning for the National Wildlife Visitor Center (NWVC) began earnestly in 1987, shortly after Mr. Harold J. O'Connor became director of Patuxent Wildlife Research Center. The previous Director, Dr. David L. Trauger, had done preliminary planning along with an assistant, Ms. Kheryn Klubnikin. She and her assistant, Ms. R. Lynn Miller, produced a vision document entitled "Windows on Wildlife Research: Visitor Center Concepts for Patuxent Wildlife Research Center."

The initial concept was that the Visitor Center would concentrate on the history and research activities of Patuxent (Laurel), focusing on studies of migratory birds, endangered species, and environmental contaminants. That changed quickly with the direction of Mr. O'Connor and with funding from Congress initiated by our Congressman, Honorable Steny Hoyer. In a short period of time, we changed the vision from a local Laurel-based visitor center, to one that would deal with the national research projects of the US Fish and Wildlife Service (USFWS).

Mr. Hoyer learned of our desire to have a visitor center and invited Mr. O'Connor and his Special Assistant (M. C. Perry) to come to his office to discuss funding. Mr. O'Connor had a handwritten note from his supervisor at FWS headquarters, Mr. Richard Smith, that we could ask for \$500,000 for initial funding. However, Mr. Hoyer was aware of our planning and before Mr. O'Connor could ask for the half million dollars, Mr. Hoyer said, "I understand you need \$5 million for this project." Mr. O'Connor quickly said "yes," and then Mr. Hoyer assured us that we would get the funding. WOW, that was fast!!!

With funding assured, we proceeded to hire a Washington, DC-based architect firm to work on the project.



Photo by Matthew Perry.

The back of the National Wildlife Visitor Center as seen from Lake Redington.

The initial funding of \$5 million soon increased to \$11 million, and then to \$15 million. The concept was that the NWVC would be a national resource facility with a large auditorium and multipurpose rooms to accommodate national conferences and workshops. A large room was also in the design plans to be used for publications and digital transfer of information to the public. The room was planned next to what is now the Hines Conference room where technical assistants could work disseminating information.

In 1992, Secretary of the U.S. Department of the Interior Babbitt transferred all research in Interior to the National Biological Survey (later Service) and control of the Visitor Center left research to go to the National Wildlife Refuge System. The plan to have a research publication dissemination area was abandoned and the room became used for staff and volunteer offices.

During the period of early building design planning, the appearance of the main lobby was discussed. Mr.

O'Connor wanted a large area that could be used for special receptions and insisted that the lobby area have no columns or other support structures in the room. The design company said it was not possible for that type of design in such a large room. After heated discussion the design company was terminated, and a new company was hired. The new company said they could build such a large lobby, unencumbered with support columns, and they succeeded. That company was Cooper-Lecky Architects, who also designed the Vietnam Memorial and the Korean War Memorial in Washington, DC.

Another topic concerning the building design that was discussed in early planning was the idea of having the building built into the hill along Lake Redington so that visitors would enter through a tunnel to the below ground exhibit areas. This plan was eventually rejected, and the above ground facility was approved. Concessions made were that the building would

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Foundation Support of Friends of Patuxent

By Board of Directors, Friends of Patuxent

Last year Friends of Patuxent received an anonymous and unsolicited foundation donation of \$25,000, no strings attached. The Finance Committee 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 Patuxent Research Refuge and Eastern Ecological 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 January 2023, and the Board approved the recommendations. The approved recommendations were to donate \$12,000 each to the Refuge and Science Center in support of the projects below, and to retain \$1,000 for growth of Friends of Patuxent.

The donation to the Science Center will support the purchase and installation of a portable "Pollinator Cam" at the Bee Lab that will livestream video from the wildflower gardens and native pollinator habitats around the lab to an online audience. The mobile camera might also be used to show other ongoing research, perhaps at the bird banding station, at the duck tanks, or research related to box turtles or other work conducted at the Refuge.

The Science Center donation also laid the foundation for a "Speaker Series" in cooperation with the Refuge and Friends of Patuxent to support honoraria and expenses to bring scientists, ecologists, conservationists, and others to the Refuge for public presentations.

Thirdly, the Science Center donation will explore the possibility of bringing the data collected by the Motus Wild-



An endangered rusty patched bumble bee (*Bombus affinis*). The bee historically occurred in the eastern and mid-western United States, and southern Canada. It is now rare in Maryland.

life Tracking System tower on the Refuge into the Visitor Center for public viewing. The Motus tower is located near the National Wildlife Visitor Center (<https://www.friendsofpatuxent.org/Motus-System>). The system tracks migrating wildlife, particularly birds, but also bats, butterflies, dragonflies, and other wildlife, using small lightweight transmitters on the animals whose signal is detected as the animal passes by a receiver. This project, if doable, will help to bring wildlife research to life for the public.

The donation to the Refuge will support creating a "StoryWalk" for kids outside the National Wildlife Visitor

Photo: U. S. Geological Survey/John Mola.



A StoryWalk for engaging kids in reading, art and nature education.

Photo: National Park Service/Valerie Morgan.

Center. A StoryWalk is an innovative approach to engaging kids in reading, art and nature education. It consists of a series of self-guided educational stations on an outdoor path incorporating a dozen or so signs that feature text, art, ideas, and questions from age-appropriate books and stories about nature. The teaching panels encourage reading, art, storytelling, and intergenerational understanding of nature. The idea is to interactively engage kids in learning and talking about what they see and learn. The StoryWalk will provide an outdoor component to the Kids Discovery Center located in the Visitor Center. The Refuge donation also will support establishing an outdoor butterfly enclosure that will be linked to the Kids Discovery Center's educational programs on the monarch butterfly.

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

Thank you!

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**

Where Are They Now - David Dolton

Continued from page 6



Photo by Dan Boyfe.

David Dolton using horns, antlers, skulls, and furs to educate youth hunters and their parents on various aspects of wildlife science, 2018.

population and harvest surveys, and bird banding). David would then follow the talk with a discussion and “show and tell” of biological characteristics, such as the difference between horns and antlers, and the shape of antlers of elk and those of mule and white-tailed deer. He told the youth that pronghorns were the only horned animal that sheds its horns each year. In discussing eye placement in predators and prey, Dave showed skulls of bears, mountain lions, and deer.

Although David grew up in the small town of Yoakum, Texas, he and Linda, his wife of 50 years, have remained in Denver since he retired in 2009. Linda was an accounting clerk in the Patuxent Finance Office from 1976 to 1985, initially under Pearl Sisler, and later under Trudy Harrison. David and Linda have two grown sons, Daniel and Derek. In recent years, David has pursued his passion for landscape photography, and maintains a photo web site at <https://daviddolton.zenfolio.com/>.

Although David's tenure in Laurel occurred in the 1970-90s, he has continued to maintain contact with researchers and managers working in Laurel for the USFWS and USGS. He has been a versatile biologist and contributed greatly to the conservation of our natural resources. 🌿

Early Visitor Center Planning

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Tenth Anniversary Celebration of the National Wildlife Visitor Center, 2004 Left-Right, Refuge Manager Sue McMahon, Former Director Harold O'Connor, Congressman Steny Hoyer. Dr. Judd Howell, the Patuxent Director in 2004 in left background.

have a low profile, that material would be sandstone with an earthen color, and that the roof would be copper that eventually would become a natural looking green.

During the planning process, Patuxent was lucky to get funding to install electricity donated from Potomac Electric Power Company (PEPCO). Another donation came from Washington Suburban Sanitary Commission (WSSC) for the water line for the facility. The large water line designed for one million visitors per year became problematic, however, when only approximately 100,000 visitors became the average annual attendance. The water became “stale” in the line and WSSC developed a circulatory system, so the water was constantly circulating even when there were few visitors at the facility.

The whole planning and construction process took 7 years and in October 1994 the National Wildlife Visitor Center was officially dedicated and opened to the public. Unfortunately, after 30 years of operation some of the exhibits have become inoperable and the habitat dioramas are closed to the public. It would be great for the Thirtieth Anniversary of the facility this year, if funds were to become available for repair. The facility is still popular and offers a good “window on wildlife research.” 🌿



FRIENDS OF PATUXENT BOARD OF DIRECTORS 2023

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- Stephanie Kaufman, *Treasurer*
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- Megan Evans *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 2024 are:

- January 16
- March 19
- May 21
- July 16
- September 17
- October 15.

Annual Members meeting to be determined.

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.)

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

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

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





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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).