



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

# FRIENDS OF PATUXENT

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## Falling Leaves and Defending Lands

by Jennifer Greiner, Refuge Manager

**A**utumn has always been my favorite season. Having grown up in the Great Lakes, I was happy to discover that “Fall” can last longer than a single month and that one can comfortably take a hike or ride a bike well into November in the Mid-Atlantic without needing extra layers. I find autumn is also a good time to reflect and plan for the year ahead. Having been at Patuxent a little over two years, I’ve realized that things never “slow down” here, especially when it comes to land use pressures around the Refuge. Between proposals for high-speed railway that would take forest from the North Tract of the Refuge, to wetland impacts from proposed runway expansion at Tipton Airport, to a new command center at Fort Meade and associated residential development along Rt. 198, to potential sale of a NASA Goddard parcel to private development, it is hard to keep up... but I take comfort in knowing that many watchful eyes of the Friends of Patuxent are also on alert. I’d like to update readers on the latest in a litany of pending land use decisions with potential impacts on the habitats and wildlife of the Refuge:

Prince George’s County owns over 200 acres adjacent to the western boundary of Patuxent Research Refuge. This county-owned land buffers some of the best undisturbed mature floodplain

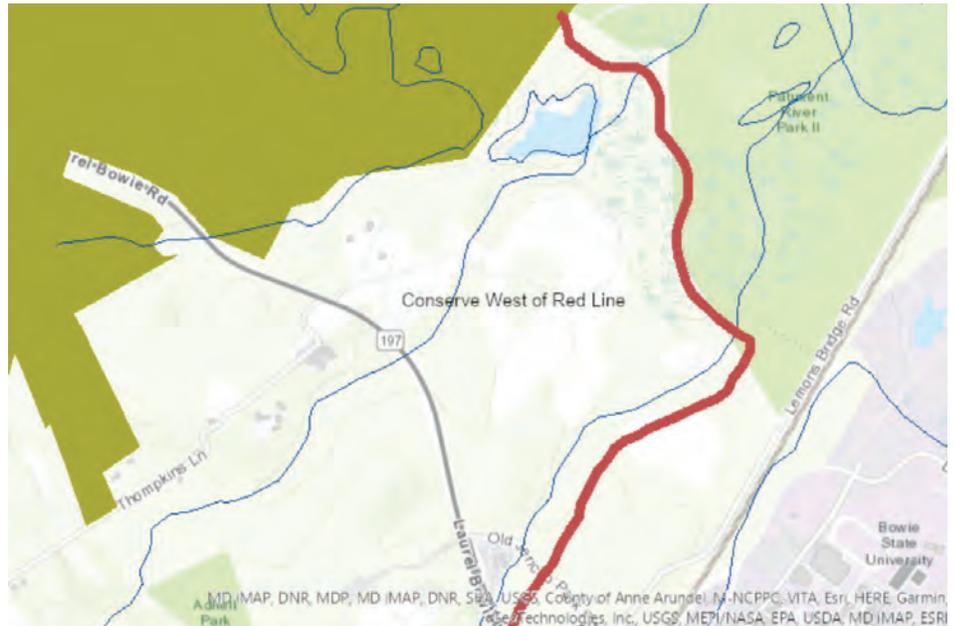


Figure 1

forest in the entire county (on the Refuge’s Central Tract). Nearly half (97) of those 200 acres are being proposed for a high-density, mixed-use develop-

ment called the BSU-MARC Campus Center village (BSU-MCC). The BSU-MCC is envisioned to provide student

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## Falling Leaves and Defending Lands

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and faculty housing, grocery, retail, office space, entertainment, hotel lodging, and data centers to support growth of Bowie State University (BSU) - Maryland Area Regional Commuter (MARC). Unfortunately, those same 97 acres also happen to contain quality mature upland forest that buffers several streams that lead to the Patuxent River.

Removal of this forest and resulting loss of buffer would expose the Refuge's sensitive forest and the Fran Uhler Natural Area to light, noise, and impervious surface runoff, resulting in increased sediment inputs to feeder streams. Stream degradation would, in turn, further degrade the Patuxent River, which is already struggling to support a healthy mussel population and two Maryland listed fish species, the stripeback darter and glassy darter. Loss of this forest also threatens the quality of life for people who recreate in this area of Prince George's county, increases the already dangerous traffic on MD Rt. 197, decrease the carbon sequestration value of the forest, and increase energy demand from the data centers. The proposal is in the Bowie Mitchellville and Vicinity Master Plan and in the Proposed Bowie Mitchellville and Vicinity Sectional Map Amendment (SMA) available here: <https://www.mncppc.org/3390/Bowie-Mitchellville-and-Vicinity-Master->

The Master Plan and SMA both justify the BSU-MCC as something that is needed by the university. But when the county sent out a Request for Expression of Interest (RFEI) to the developer community seeking proposals for site development of the BSU-MCC village, the justification provided was to increase revenues of the county through increasing the tax base. Even more curious is the fact that while the RFEI refers to Patuxent Research Refuge as an "amenity" in the area, the Refuge was not invited into early discussions as a neighboring landowner.

Working to change that, I've arranged for Refuge staff to meet with representatives of PG County Department of Planning on September 15 to discuss potential impacts to the Refuge of forest loss associated with this proposal. My goal is to work collaboratively with them to find a solution that balances the university's need for growth while protecting the environment, public access to natural lands, and innovative hands-on science partnerships between PRR and BSU. Specifically, PRR has suggested that the forested section west of the red line on this map be conserved (See Figure 1 on page 1).

Friends of Patuxent members should be aware that a public hearing on the proposed SMA will be held September 27 at 5:00 (virtual and in person and at the Wayne K. Curry Administration Building in Largo). Instructions to provide testimony have been posted on PG County Planning Department website <https://www.mncppc.org/3390/Bowie-Mitchellville-and-Vicinity-Master->. Speakers must register by 3pm on September 26 and written testimony submitted by close of business on October 4, both at this portal <https://pgc-council.us/Speak> 🗣️

## Friends of Patuxent is Now on Instagram!

Please follow us [@friendsofpatuxent](https://www.instagram.com/friendsofpatuxent) 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@friendsofpatuxent.org](mailto:friendspr@friendsofpatuxent.org)

## Visit us on Facebook and Twitter

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

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*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](mailto: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			Issue		
No.	Months	Deadline	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 15, or join online at <https://www.friendsofpatuxent.org>.

# The North American Breeding Bird Survey: Helping Keep Common Birds Common

by David Ziolkowski, Jr., Wildlife Biologist, Breeding Bird Survey; Keith Pardieck, Manager of the Species Population Dynamics and Surveillance Capability Team and Jennifer Malpass, Ph.D., USGS

In the mid-twentieth century, the success of new, post-war pesticides ushered in a new era of synthetic chemical pest control. As pesticide use grew, concerns about their effects on wildlife began to surface, as epitomized by Rachel Carson in “Silent Spring.” Local studies had attributed some bird kills to pesticides, but it was unclear how, or if, bird populations were being affected at regional or national levels. In 1966, responding to this concern, researchers at the Patuxent Wildlife Research Center (now the U.S. Geological Survey Eastern Ecological Science Center) initiated the North American Breeding Bird Survey to monitor bird populations over large geographic areas.

## What Is the Breeding Bird Survey?

The Breeding Bird Survey (BBS) is a multinational, long-term, continental avian monitoring program designed to track the status and trends of North American bird populations. The U.S. Geological Survey (USGS) leads the effort in collaboration with Environment and Climate Change Canada and the Mexican National Commission for the Knowledge and Use of Biodiversity.

## How Does the Breeding Bird Survey Work?

Each year during the height of the avian breeding season, thousands of community scientists who are skilled in avian identification collect bird population data from roadside survey routes.

- Survey routes are roughly 25 miles long and are comprised of 50 point counts.



Photo by Mikey Lutmerding/USGS.

*Sunrise along the Jennings route in Garrett County, one of 54 roadside bird counts conducted in Maryland as part of the North American Breeding Bird Survey.*

- Each point count is a bird count that lasts 3 minutes. In the allotted 3-minute time, an observer counts all birds heard or seen within a 0.25-mile radius.
- Surveys start one-half hour before local sunrise and take about 5 hours to complete.
- Routes are surveyed once per year by a qualified observer assigned to the task.
- There are over 4,800 survey routes located across the continental United States, Canada and northern Mexico.

## How Are Breeding Bird Survey Data Used?

BBS data provide an index of population change and are used to estimate population trends and relative abundances at various geographic scales and time periods. The data play an essential role in assessing bird population changes and they inform national and regional avian conservation and management actions.

- Raw and summarized count data are provided free online for over 700 bird species.

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# A Whooping Crane Named Cinnamon

by Mary Beth Mattison, Author

This article was written in 2013 when the Patuxent Wildlife Research Center was engaged in research leading to restoration of Whooping Cranes.

**C**innamon has been in her egg for 30 days. Her long legs press against the shell, and she feels cramped. She's pecked at her shell for a few days now, and she's very tired.

The last few days, Cinnamon has heard a recording of sounds that are normally heard in a marsh, such as birds singing, frogs croaking, and the wind blowing through the trees. Mixed in with these sounds, Cinnamon occasionally hears a mechanical noise – it's the sound of an ultra-light plane. It's not a sound normally heard in a marsh, but Cinnamon needs to get used to it because, in a few months, she's going to fly 1,200 miles behind an ultra-light plane.

The sun is going down by the time Cinnamon finally breaks free of her shell. She's exhausted, and just lies in a downy wet heap.

Cinnamon hears noises around her, but she's too tired to even lift her head to see what's going on. She lets Sam, a man dressed in a whooping crane costume, pick her up, dry her off, weigh her on a scale, and then put her back in her small, warm pen. Cinnamon sleeps with a heat lamp and a cuddly model of a whooping crane called a brood crane. She snuggles up beside her brood crane and quickly falls asleep.

After resting for several hours, Cinnamon tries to stand up. Her legs are swollen from being cooped up in her shell and she's unsteady on her feet. But after wobbling around for awhile, she is finally able to walk more easily. Her body is covered with tan-colored down, and her eyes are a beautiful blue.

While walking around her pen, Cinnamon bumps into a short red bowl



*Mary Beth Mattison reading to audience.*

and notices Sam dipping his beak in the bowl. Then he touches Cinnamon's beak and drops water into it. Sam gives Cinnamon water many more times, and eventually she tries to dip her beak in the bowl, too. At first she puts her whole face in the water and startles herself, jumping back and shaking her head. Then she tries again, but this time she judges the water level better and doesn't get her head so wet. Soon Cinnamon can pick up water with her own beak.

While Sam has been teaching Cinnamon how to drink, he's also been teaching her how to eat. In captivity, baby whooping cranes eat crane crumbles which are ground-up pellets of crane food. These crane crumbles supplement the natural food in her pen that she will learn to catch for herself. To teach Cinnamon how to eat the crane crumbles, Sam dips his beak in the water, then he dips it in the crane crumbles, and touches Cinnamon's beak so she can get some

food. Cinnamon soon learns how to feed herself, and starts to gain weight and grow.

Whooping cranes grow very quickly when they're young, about one inch a day. When she's young, Cinnamon lives in a small indoor pen. The recording of marsh and ultra-light sounds is still played for her there. This small pen has a back door to a larger outdoor pen. As she grows bigger, the door between her inside pen and her outside pen will be kept open during part of the day so she can go outside. The outdoor pen has a net covering the top to keep Cinnamon safe from predators. She loves running in the short grass in her outdoor pen and catching bugs to eat.

A grown-up whooping crane lives in the pen next to her. Cinnamon often goes over to the edge of her pen to look at the big bird and listen to the calls the grown-up whooping crane makes.

Cinnamon's indoor and outdoor pens are smaller than some of the other pens at Patuxent Research Refuge in Laurel, Maryland. And Sam wants her to get more exercise, so every day he walks her for about 20 minutes in a very large pen so she can get used to walking through the tall grass and shallow ponds there. These are skills that Cinnamon is going to need later in life when she lives in the wild.

The largest pens don't have nets over them like her smaller pens do. So when she's in the largest pen, Sam has to keep a close watch on Cinnamon to make sure no predators can get to her. Some of her predators here at the Refuge are hawks, foxes, raccoons, and snakes.

Besides having predators, whooping cranes are predators themselves. In addition to bugs, Cinnamon likes to eat toads and frogs, as well as berries and flowers that she finds here. But Cinnamon's favorite foods are clover, ants, and mealworms.

One morning when Cinnamon is walking behind Sam in the largest pen, she bumps into an anthill and hundreds of ants come scurrying out. Since Cinnamon loves to eat ants, she stops for a snack. Sam keeps walking because he's trying to get her to exercise.

Unbeknownst to them, a red-shouldered hawk has been patiently sitting high up in a nearby tree. When the hawk sees that Sam has walked farther ahead of Cinnamon, it swoops down towards her. Cinnamon sees its shadow in the grass and starts peeping loudly as she runs towards Sam. Sam hears her peeping and quickly turns around and runs back to her. Just before the hawk snatches Cinnamon up in his talons, Sam waves his arms at the hawk. The hawk turns around and flies off. Cinnamon had a close call, but at last she is safe.

Sam also takes Cinnamon swimming for exercise. She swims in an above-

ground pool for about 20 minutes at a time. Sam walks around the outside edge of the pool while Cinnamon swims beside him. She has now started socializing with four other whooping cranes her age. Sometimes they play together in the nearby ponds. This group of whoopers is called a cohort.

Every person that Cinnamon sees is dressed in a whooping crane costume with mesh covering their face. She never sees people dressed in their regular clothes. And no one talks when they're around the whooping cranes. This is very important because everyone at the Refuge wants Cinnamon to learn to behave like a whooping crane. No one wants her to behave like a human being.

Cinnamon and her cohort also spend time walking behind the ultra-light. They're not afraid of the sound it



makes because they've heard it since they were in their eggs. To teach the young whoopers to follow the ultra-light, a whooping crane puppet drops mealworms out of the back.

Cinnamon continues to grow quickly. When she's about 4 or 5 weeks old, most of her tan feathers have fallen out and her cinnamon-colored feathers have come in. Her eyes are no longer blue, but are now gold colored. She's much taller than she was when she was born, and her legs are much stronger from all the walking and swimming she's been doing. She flaps her wings a lot to exercise them, but

she still can't fly because she doesn't have her flying feathers yet.

One morning something unusual happens. Cinnamon and her cohort are put into big boxes. Then, the boxes are put on a small plane and flown to Wisconsin. Cinnamon doesn't like being in a box and she wishes she were free to run around in her big pen. Just when she thinks she's going to stay in that box forever, the plane lands near Berlin, Wisconsin, at a wonderful place called White River Marsh State Wildlife Area. Cinnamon is so happy after she's taken out of the plane. She's a bit stiff from being in that box for so long, but she begins exploring her new home.

Her new home at White River Marsh looks a lot like her old home at Patuxent Research Refuge, and she quickly finds food and water containers and takes a several drinks of water and eats some food. Because Cinnamon is much bigger now, she no longer eats crane crumbs, but now she eats large pellets of crane food.

The next day, Cinnamon sees something else that looks familiar – an ultra-light plane. She and her cohort spend time walking and running behind the ultra-light here in Wisconsin just like they did in Maryland.

When Cinnamon is about two and ½ months old, her flying feathers finally come in! She runs across the big pen, flapping her wings and trying to fly. This time, she takes off, flying above the big pen and then coming in for a landing. Her landings are a bit bumpy at first, but she soon gets the hang of it. She flies above White River Marsh during the day, coming back to her pen for food and water often. But she still sleeps in a covered pen at night to protect her from predators.

After the whoopers have been flying for several days, Cinnamon and her cohort are herded over to a low strip

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# Recent History of Patuxent's Ponds and Impoundments

by Sandy Spencer, Supervisory Refuge Biologist

**T**he interesting history of the Patuxent ponds by Matt Perry in the last issue inspired me to write this more recent history about the decision process for their fate. Patuxent Research Refuge currently has over 500 acres of man-made ponds and impoundments (ponds that have structures for manipulating water levels), old gravel pits, and oxbows. A number of these impoundments, particularly on Central Tract, straddle feeder streams making their way through floodplain forest toward the Patuxent River.

As Matt described, the impoundments were originally created decades ago for research on impoundment management techniques for waterfowl and shorebirds. However, research of this type has not occurred for years and questions have been raised about their relative contribution to breeding or wintering waterbirds, as they lie outside of the core Atlantic Flyway, versus their potential to contribute to floodplain forest, and to the health of the Patuxent River and the Chesapeake Bay. Also maintenance of these aging impoundments has been a challenge to budgets and staff. Keeping the water control structures open has, over the years, become what I call a Sisyphus project. Remember the guy in Greek mythology who was doomed for eternity to roll a heavy boulder up a steep hill, let it roll back down, then start all over again? Likewise we seem doomed in keeping the water control structures free of the perpetual beaver debris that clogs them. And some of the designs of the water control structures are unsafe for personnel. An employee once got sucked through a culvert when the water rushed through after he opened a clog.

During the writing of the Refuge's Comprehensive Conservation Plan in



Photo by Sandy Spencer

*Hance immediately post restoration.*

2011-2012, the future role and management of the impoundments had to be considered. Refuge staff, along with partners within the US Fish and Wildlife Service, Maryland Department of Natural Resources (DNR), and USGS, examined the management of impoundments across the Refuge and developed a Structured Decision Making (SDM) process to obtain informed guidance on the future management of these impoundments.

The SDM process evaluated and provided scores or rankings for the costs and benefits to wildlife and the environment for each impoundment under different scenarios such as: continuing to manage as is (dynamic or static levels), restoring to either natural hydrology, or converting to green-tree reservoir. (A green tree reservoir is a type of managed wetland that promotes trees, is flooded in winter, and drained

in summer for the benefit of wintering waterfowl.) The process generated portfolios listing impoundments' total maximum benefit scores. Generally, portfolios which contained the most conversions to green-tree reservoir or floodplain forest and swamp scored highest in wildlife value and benefits. One of the benefits included in the process was reduction in forest fragmentation. None of the portfolios, including the final chosen portfolio, resulted in actual loss of wetlands, just changes in wetland types.

Some wetlands were deliberately excluded from the SDM process because of the cost of deconstruction, their value to the Refuge for visitor services for recreation or education, their value to the scientific community for future research (Uhler 1 and 2), or because they were naturally oc-

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## Recent History of Patuxent's Ponds and Impoundments

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curing, pseudo-impoundments. Most gravel pits were eliminated from the SDM process as they would require an extensive permit process, filling and land alterations, and associated costs. They would also incur considerable collateral damage from equipment access. However, to ascertain that the costs of retaining the gravel pits would truly be greater than the gain in resource benefit, and to compare the cost and benefit analysis of gravel pits against other impoundment types, we ran the SDM model for the three gravel pits of the Gravel Pit Pond series which are of varying sizes. Impoundments such as Cash Lake and Lake Allen, were not considered in the SDM process because they serve too important a role in our support of the priority public uses. Naturally occurring wetlands, such as Shangri-la or other ox-bows found on the North Tract and most pseudo-impounded wetlands (created by beaver dams, or unintentional result of a road or some alteration to flow, yet have no means of manipulating the water level), were also excluded from the SDM process.

The SDM process resulted in 14 impoundments listed for either restoration to natural hydrology or conversion to green-tree reservoir. Their total acreage is approximately 197 acres (89.5 hectares).

To date, no impoundments have been deliberately drained by Refuge management for elimination, and only one has had its water control structure actively re-engineered. Knowles 2, "self-drained" when the concrete water control structure developed a large crack and lost its function. Knowles 2 is still a wetland however, with many facultative wetland plants and trees populating its former open water areas. The stream that it blocked now flows freely to the Patuxent River. Mabbot Pond on South Tract was temporarily drained when the water control structure was leaking around

its edges. The pond became a wetland dominated by *Carex* and *Juncus* species and wetland adapted native trees and the stream that fed it flowed into Lake Redington. Now the water control structure is functioning and it is a pond again. In 2018 at Hance Ponds 1 and 2, the water control structure was removed and replaced with a ford, or drivable spill-way, to both allow the stream to flow to the Patuxent River, and continued use of River Road by maintenance, hunter vehicles, and biology staff. The Hances are still wetlands and still contain shallow pools. The beaver have figured out how to dam the spillway but water still flows. This area is also one of the best locations to find spotted turtle (*Clemys guttata*), a Species at Risk (candidate for listing).

Knowles 1, the largest impoundment on Central Tract, has two water con-

trol structures that are very difficult to maintain or operate. And now there are Northern snakehead fish (*Chana argus*) in Knowles. One was caught earlier this year in a researcher's turtle trap and another was caught when testing with a pole. We are in the process of drawing the water down in order to more efficiently trap and remove snakeheads, but it will be refilled again.

It's been 9 years since the SDM process identified the 14 best impoundments to restore to natural hydrology. It's an expensive and disruptive undertaking to implement. As the Refuge operates on a shoestring budget, only when funding opportunistically presents itself are we likely to complete restorations, and then only one at a time. The Hance Ponds restoration was funded by a mitigation lawsuit, not a source of funding that is likely to come around again anytime soon. 🍷

## 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 [www.friendsofpatuxent.org](http://www.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 15, or go to <https://www.friendsofpatuxent.org> to join online.*

# Meet Two of Our Wildlife Images Bookstore and Nature Shop Volunteers!

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

**S**hasi Karyampudi originally hails from India; she now lives near Patuxent. She used to come to the refuge many years ago with her children to walk and to watch hummingbirds — the National Wildlife Visitor Center hadn't even been built back then, but there were hummingbird feeders!

Shasi's children are grown now; these days she comes to enjoy herself and learn more about animals, including insects. One day last spring she brought her friend Sandra Burke with her to check out the Visitor Center. As they enjoyed the Visitor Center on South Tract of the refuge that day, they saw a sign in the lobby: "Volunteer Help Needed," for the Bookstore & Nature Shop. Curious, they stopped by the shop. Store Manager Ann Carlson showed them around and warmly answered their questions about the shop, the Friends of Patuxent, and volunteering. Much to Ann's delight, Shasi and Sandra decided to sign on for her volunteer training. Within a few months they were regularly and confidently running the shop together once a week!

Both Shasi and Sandra enjoy greeting and helping customers in the Friends shop, noting that, "It's a nice place to work," with friendly people and a relaxed pace. Sandra noted that some of the things she likes about volunteering here are meeting new people, being helpful to them, and "the register-balancing at the shift's end." Shasi enjoys familiarizing herself with the books and other resources in the shop, too, and learning more about all animals and insects along the way. In her personal life, Shasi enjoys drawing, painting and reading. Sandra enjoys word and number games, bowl-



Photo: Sandra Burke

**Shasi Karyampudi, volunteering in the Friends of Patuxent's Wildlife Images Bookstore & Nature Shop. (Shop profits support the mission of Patuxent Research Refuge and the Eastern Ecological Science Center, Laurel, MD.)**

ing, and singing, as well as "a good, intelligent conversation."

Both have become experienced at opening the shop, helping the customers, ringing up and handling sales, restocking shelves as needed, and closing down the shop at the day's end. The Bookstore & Nature Shop's new point-of-sale software guides them through their sales tasks and makes the end-of-day sales reconciliations and accounting

straightforward. Sandra also notes, "Ann is a great store manager who is willing to help you be successful at volunteering."

Please drop into Patuxent Research Refuge's National Wildlife Visitor Center on South Tract some Wednesday between 11 a.m. and 4:00 p.m., and stop by the Friends shop inside, to say hello and thanks to these wonderful and faithful Friends of Patuxent Bookstore & Nature Shop volunteers! 🍷

## The North American Breeding Bird Survey: Helping Keep Common Birds Common

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- Population trend estimates are provided for over 500 bird species.
- Federal and state conservation policy and land use planners combine BBS data with other indicators to assess species management priorities.
- BBS data have identified critical declines of neotropical migrants and grassland species, galvanizing conservation action for these birds.
- Most recently, BBS data were used to document the loss of nearly 3 billion birds over the last 50 years spurring the “Road to Recovery” conservation initiative.
- Over 800 peer-reviewed publications have used BBS data as the primary means to answer a research question.

## Why Is the Breeding Bird Survey Important?

As the sole source of long-term, large-scale breeding season population change data for hundreds of bird species in North America, the BBS program fulfills, in part, the De-



Photo by Mikey Lutmerding/USGS.

**Breeding Bird Survey data show that the shrub-loving, yellow-breasted chat has experienced a population decline of 3% per year in Maryland since 1966, when the survey began.**



**Yellow dots show the locations of the 4,800 Breeding Bird Survey routes situated across North America. These scientifically rigorous, annual bird counts provide the critical population data needed to drive science-based management decisions for hundreds of bird species.**

partment of the Interior mandate under the Migratory Bird Treaty Act to conserve and manage migratory bird species. The BBS helps keep common birds common by providing the data needed to annually assess populations, alerting wildlife management agencies to take action before they reach critically low levels. In addition, the survey provides critical avian count data for model-based conservation planning.

## Example Application of Breeding Bird Survey Data: Wood Duck Harvest Regulations

Each summer, at the request of the U.S. Fish and Wildlife Service Migratory Bird Program, the Eastern Ecological Science Center provides a provisional release of BBS wood duck data to inform annual harvest regulations in the Atlantic Flyway. Wood

duck is the most harvested waterfowl species in the Atlantic Flyway and among the five most popular hunted ducks in the United States. Heightened public interest in wood duck has garnered increased attention on regulations and habitat management, and the U.S. Fish and Wildlife Service has met this challenge by drawing from the most scientifically reliable population data available to inform its population modeling and structured decision-making work. BBS fits this task better than most waterfowl surveys do because wood ducks are widely distributed, occur at relatively low densities, and prefer heavily forested habitats – and BBS observers are out there in those places performing the count!

Learn more about the North American Breeding Bird Survey at: <https://www.usgs.gov/centers/eesc/science/north-american-breeding-bird-survey> 📱

# Fall Exhibits in the Hollingsworth Gallery 2022

by Faith Leahy-Thielke, Patuxent Volunteer

**F**all 2022, high time to get back to “normal.” In October Hollingsworth welcomes Amanda Spaid.

Since her scheduled exhibit in April 2020, she has moved to Greenbelt where she has a studio in the City’s Community Center. Her painting of a ruby-throated hummingbird graced the brochure used to publicize the Center’s Spring Art Studio Open House.

Amanda has degrees in art and design from Montgomery College here in Maryland and from Columbia College of Art and Design in Ohio. She has experience in many mediums, but prefers dry media on wood panels she collects and cuts herself. She enjoys wood’s “warm ground” and natural texture which lend “movement to my subjects.” The results are unique and wonderful images of birds and animals. Many are for sale as prints either hand-embellished on wood or as archival giclee. Giclee is a method of digital printing using a thick paint-like pigment rather than the dye generally used for art prints – and it’s applied with an inkjet printer. Archival paper giclee is high quality and won’t

deteriorate or discolor. We’ll look forward to her delightful images.

The Southern Comforters Quilting Guild returns in November. Guild member and exhibit curator, Barbara Dahlberg sent us a post-Covid update. Meetings have always been twice monthly at CCPC (Community Presbyterian Church) on the second and fourth Wednesdays. The first is now still “zoomed” but the second is “in person.” Additionally, one of the members’ activities is meeting at each other’s homes weekly to work on their own or group projects. Quilts from these sessions are often donated to local charities. Other guild activities include speakers, workshops, and exhibits around the area, an annual challenge and a “block” of the month. New members are always welcome.

In December we’re fortunate to host Steve McDaniel once more. He and his wife, Angie, make their home and photography business in the farming community of Manchester in Carroll County, Md. They have traveled widely with Steve’s camera always at the ready. He’s captured (on film of

course) l’iwis and nenes in Hawaii; wood storks and royal terns in Florida; and rose-breasted grosbeaks on the North Atlantic Coast. However, much closer to home works too! Steve puts flowers next to his home’s outside bird feeder and sits next to an inside window to watch the visitors and get some wonderful shots.

On their website’s Fine Arts Gallery are a number of his glorious photographs under the categories of “Landscapes and Scenics,” “Up Close and Personal,” and “Pollinators; Birds, Bees, and Butterflies.” For December’s exhibit he plans some macro images – close in closeups like life inside a beehive. Bees and beekeepers are a specialty and special interest of the McDaniels and have provided “some of our most published images.” Steve is also a popular speaker who makes his lectures active fun events and is always willing and able to give talks or make presentations. All his photographic images are copyrighted, but reproductions are available for sale.

We look forward to crisp weather and delightful exhibits this fall. 🍂

## 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.**

Application on page 15, or go to <https://www.friendsofpatuxent.org> to join online.

# Something for Everyone - Programs at Patuxent

Programs are free. Some programs require advance registration by calling 301-497-5887. Programs are subject to changes or cancellation due to weather or low participation. Please notify the refuge of any special needs so that you may be accommodated.

## October North Tract Programs

230 Bald Eagle Drive  
Laurel, MD 20724

### Riding Bicycles to Experience North Tract

Sat., Oct. 22nd, 10:00 am - 12:30 pm  
Ages 10+, registration required

Experience the beauty of local wildlife, plants and historical sites on this 12-mile guided ride. Bring your own bike, snack, water bottle and helmet. The ride is weather-dependent. The road surface is rough asphalt and may not be suitable for narrow road tires.

### Skulls Identification

Sun., Oct. 16th, 1:30 pm - 2:30 pm  
Ages 5+, registration required

We see skulls for Halloween, but did you know animal skulls tell a story? Learn to examine the teeth, eye placement, and shape of a skull to make an educated guess as to how the animal lived its life.

## October South Tract Programs

### Urban Wildlife Conservation Day

Sat., October 1st, 10:00 am - 2:00 pm  
All ages, no registration

Come celebrate the joys of having wildlife next to our homes in the city. This year's celebration includes live animals, arts and crafts, pop-up archery, and several programs on the trails.

### Easy Pollinator-Habitat Gardens

Sat., Oct. 8th, 2:00 pm - 3:00 pm  
All ages, registration required



Did you know that you can help wildlife right from your home? Planting just a few native plants can make a great home for native pollinators. Come to this class for help with starting your own backyard wildlife refuge.

### Pollinators in a Pot — Native Plants for Patios and Decks

Sat., Oct. 22nd, 2:00 pm - 3:00 pm

All ages, registration required  
How do you create a wildlife home in the limited space of a patio or deck? Join in on this informative session and adopt a native plant grown at the USGS Bee Lab.

### Driving Tour-Solving Nature's Mysteries

Sat., Oct. 8th, 1:00 - 3:30 pm  
Recommended ages 10+, registration required

Join former Refuge Manager Brad Knudsen on a behind-the-scenes tour of the refuge's Central Tract to learn

how wildlife research and refuge management have worked together to assist wildlife conservation efforts locally, nationally, and globally.

### BARK Ranger Training

Sat., Oct. 8th, 10:00 am - 11:30 am  
All ages, registration required

Does your dog enjoy walking the trails at Patuxent? Bring your dog to our BARK Ranger training. Upon completion your dog can monitor the trails as a certified B.A.R.K. Ranger. (Participating youth must be accompanied by an adult.)

### Family Fun - Creepy Critters

Fri., Oct. 21st, 10:00 am - 1:00 pm  
Sat., Oct. 22nd, 10:00 am - 1:00 pm  
All ages, no registration

October means Halloween -- time for spooky owls, scary bats and crawly spiders. Are these animals creepy, or are they cool? Come learn more about

*Continued on page 12*

# Refuge Flora: Food for Wildlife - Virginia Creeper

by Steve Noyes, Volunteer Naturalist



Virginia creeper (*Parthenocissus quinquefolia*).

One of the fall/winter food sources (berries) at the refuge is a vine in the grape family - the Virginia creeper (*Parthenocissus quinquefolia*).

It is found throughout the eastern half of the U.S. and southeastern Canada. The scientific name means "5-leaved virgin ivy" and is also known as woodbine. It is a fast growing vine that is often seen covering telephone poles, walls and trees using adhesive disks/pads to cling to its host. Commonly found in disturbed areas and can become invasive.

## Description

**Leaf:** Alternate, palmately compound, 4 to 8 inches across, with five elliptical leaflets per leaf, with coarsely crenate to serrate margins, shiny green above and paler below.

**Flower:** Small, not showy, green and borne in clusters on long stems, appear in summer.

**Fruit:** A blue-black berry, 1/4 inch in diameter, borne in long-stemmed clusters, maturing in late summer.

The sap within the leaves and stem contains raphides (needle-shaped crystals of calcium oxalate) which can puncture the skin causing irritation and blisters in sensitive people. The berries are not toxic to birds and provide an important winter food source for many bird species (including overwintering Eastern bluebirds).

Another vine found on the refuge is Poison ivy which also is a good food source. Just remember the warning... "leaves of three, let it be!" Another topic for a future newsletter article? 🍄

Source: Wikipedia

## Something for Everyone - Programs at Patuxent

Continued from page 11

them through hands-on activities, games and crafts for all ages. This is a drop-in program -- come when you wish and leave when you're ready.

### Junior Wildlife Ranger

Sat., Oct. 22nd, 2:00 pm - 4:00 pm  
Ages 6 – 10, registration required

Join a Refuge Ranger to explore five nature-related activities. Complete your Junior Wildlife Ranger (JWR) activity booklet and earn a JWR badge!

### BSA Personal Fitness Merit Badge

Join us to work on the Personal Fitness merit badge. Registration for this merit badge is only on-line. Scouts must have a current BSA physical. We will complete requirements 1, 6, & 7, plus we will work on requirements 2-5 in class. Requirements 8 & 9 will be homework. Sign up for only one class date.

Dates: Sept. 25th, Oct. 23rd, Nov. 20th

For more information & registration [click here](#).

### KIDS DISCOVERY CENTER

The Kid's Discovery Center is open Tuesday thru Saturday, each day that the Visitor Center is open. Pre-registered parent/child "Teams" are invited into the Center on the hour, from 9:00 am to 12:00 noon for a 35-minute, fun-filled session. Each month, a new and exciting nature theme is presented for parents and children to explore.

Activities are age-appropriate for children ages 3 -8.

\*NOTE: The Kid's Discovery Center is not appropriate for children younger than 3 due to small items featured in the exhibit.

Call our front desk at 301-497-5760 to reserve a 35-minute time slot for you and your child. NOTE: Parents are required to work with their child at each of the parent-led activities. 🍄

Photo by Steve Noyes

# Friends of Patuxent Wildlife Holiday Bazaar

**Saturday, November 5, 2022  
9AM to 3PM  
National Wildlife Visitor Center**

**VENDORS:** We will have 23 vendors selling one-of-a-kind, handmade items from bird, bat and butterfly houses, herb products, fabric art items, fine jewelry and so much more. A real gift buying opportunity!

**BAKE:** Don't forget the Bake Sale. Donations for the Bake Sale may be left at the Visitor Center starting Friday, November 4. Cookies, bars, snack mix, quick breads, and coffee cakes are most popular - doesn't have to be fancy, just homemade and delicious. Take a break from shopping for a snack or buy something to take home.

**DONATE A PLANT:** Plants donated for adoption may be dropped off starting Friday, November 4.

**VOLUNTEER:** Come and join us as a volunteer as we set up on Friday, November 4 and for the Bazaar on Saturday, November 5. We have a lot of fun and there are plenty of chances to shop. To volunteer: contact Diana Ogilvie at [diana\\_ogilvie@fws.gov](mailto:diana_ogilvie@fws.gov) or 301-497-5565. Refuge volunteers and Friends of Patuxent members welcome.

**SHOP:** Be sure to come early Saturday, November 5 to start your holiday shopping. The Baldy's Bargains thrift shop will be well stocked with many new and gently used items. Browse the vendors in the lobby. And don't forget to take a peak in our own Wildlife Images store. You're sure to find that unique gift for that special someone. This is the perfect time to introduce your family and friends to the Refuge.

**Lunch available at the Crane Café**  
**MEET LIVE ANIMALS • DOOR PRIZES every hour**  
**ADOPT A PLANT**



## A Whooping Crane Named Cinnamon

*Continued from page 5*

of grass behind the ultra-light. The ultra-light starts rolling down the grassy runway and takes off, with Cinnamon and her friends flying behind it. They follow the plane as it flies above White River Marsh. Gradually, it flies farther and farther away, and so do Cinnamon and her cohort.

Cinnamon has a new helper in Wisconsin named Melissa. One day Melissa puts several different colored bands on Cinnamon's leg. The bands have letters and numbers on them that show when and where Cinnamon was born, and who her parents were. Melissa also puts a radio transmitter on Cinnamon's leg so she can track Cinnamon later in life. And the veterinarians give Cinnamon and her cohort a thorough medical exam to make sure they're all healthy.

On a cool, sunny day the first week of October, Cinnamon and her cohort are woken up early. They quickly eat breakfast and start flying behind the ultra-light. But this day, something is different. Cinnamon notices new ground beneath her as they're flying. They've never flown this far away before, but she and her friends keep following the ultra-light until the pilot lands in a field. A group of helpers called a "ground crew" has gone ahead of the birds to set up their pen at a designated spot where the pilot will land. Many farmers along their path give them space to set up their temporary pen. If the weather is good, the birds might only stay for one night. If the weather is bad, they'll stay there for several days until the weather clears up.

The next day is beautiful flying weather, so the pilot and whoopers get back in the air. Sometimes when they're flying behind the ultra-light, one of the whoopers drifts away from the cohort, so a second ultra-light follows the first. If a whooper drifts away, the pilot in the second ultra-light flies after it and herds it back to the main group so it can fly

with its cohort. And there's also a spotter plane that flies behind both ultra-lights. The pilot in the spotter plane makes sure that the whoopers and ultra-lights don't accidentally get in the way of other planes flying in the area.

With the lovely weather they've been having, the whoopers make good time. They've flown over farms in Wisconsin with thousands of dairy cows on them. They've flown over corn fields in Illinois. The corn has been harvested, and the only thing left is bits and pieces of corn. There are thousands of bugs eating those bits and pieces of corn. Several times while flying over Illinois, the pilot stops in one of those fields so the whoopers can eat bugs for dinner.

The next few days are rainy and windy, so the pilot and the whoopers stay in one of the old corn fields. The birds relax, eating, drinking, and resting, building up strength for the next part of their trip.

Eventually the bad weather lets up and the sun comes shining through the clouds. It's now near the end of November, and the whoopers have been on their trip for seven weeks. The pilot starts the ultra-light, but the whoopers don't want to fly. They just want to stay in the field and eat bugs. So the ground crew creates a big scary monster out of an old tarp. The big scary monster rises up out of the marsh and scares the whooping cranes, so they finally take off and fly behind the ultra-light!

The weather stays sunny and dry, so the birds and the pilots can fly every day. They fly over Kentucky and see hundreds of horses running beneath them on horse farms. Soon when they look down, they see the thousands of peach trees in Georgia.

It's been 3-1/2 months since Cinnamon and her cohort left Wisconsin. Now, when they're flying, the whoopers look down on the forests and marshes of northern Florida. They'll soon be at their winter home.

A few days later, the ultra-light and whoopers land at St. Marks National

Wildlife Refuge. Cinnamon and her cohort are herded into pens with nets over the top. Veterinarians from Disney Animal Kingdom examine them to make sure if they are healthy after their long journey. The five whoopers are very tired and they want to rest for a few days. They're still young birds and, in the past few months, they have flown 1,200 miles.

When the whoopers first get to Florida, they continue to sleep in their temporary pen at night, but fly freely above the Refuge during the day, finding food to eat, drinking marsh water, and playing with their friends. Some of the food Cinnamon eats at the Refuge is different from the food she ate in Wisconsin and Maryland. Here she eats fish and blue crabs. She really loves the blue crabs. And there are new predators here as well. Cinnamon has to be on the lookout for alligators and bobcats, as well as the familiar raccoons.

After Cinnamon has become accustomed to her new home in Florida, she no longer sleeps in the temporary pen at night, but finds a small hill in the marsh to sleep on. In the spring, when Cinnamon and her cohort feel the urge to fly north, they'll fly back along the same path to their summer home in Wisconsin. They won't need to fly behind an ultra-light because they'll remember the way. For the rest of their lives, these lovely wild birds will always know to fly to Wisconsin in the spring and Florida in the fall.

Cinnamon is part of the Eastern migratory flock of whooping cranes. She'll have many more adventures in her life, whether in Florida or Wisconsin, or while migrating between her two homes. But for now, she's enjoying flying freely at St. Marks National Wildlife Refuge. 🍌

A follow-up article will appear in a future issue of the newsletter that will detail the involvement of Patuxent in restoration of the Whooping Crane and the current status of the birds.

# Around the Refuge

Photos by Ross Feldner, Volunteer



White-throated Sparrow



Eastern Cottontail



Blue Dasher dragonfly



Box Turtle

## FRIENDS OF PATUXENT BOARD OF DIRECTORS 2022

Richard Dolesh, *Chair*  
 Lowell Adams, *Vice-chair*  
 Helen Lowe Metzman, *Secretary*  
 Stephanie Kaufman, *Treasurer*  
 Karen Atwood, *Director*  
 Liz Humes, *Director*  
 Courtney Koivisto, *Director*  
 Debbie Phillips, *Director*  
 Clarence "Sparky" Sparks, *Director*  
 Marcia Watson, *Director*

## LIASONS

Diana Ogilvie,  
*Patuxent Research Refuge Liaison*  
 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 2022 are: January 18, March 15, May 17, July 19, September 20, October 18. (both Board and annual members meeting). Dates, locations, and times are subject to change.

**JOIN TODAY!**

**MEMBERSHIP APPLICATION**

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

National Wildlife Visitor Center  
10901 Scarlet Tanager Loop  
Laurel MD, 20708-4011

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## Friends of Patuxent

National Wildlife Visitor Center  
10901 Scarlet Tanager Loop  
Laurel MD, 20708-4011

Phone: 301-497-5789  
[www.friendsofpatuxent.org](http://www.friendsofpatuxent.org)

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***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 [www.friendsofpatuxent.org](http://www.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 15, or go to <https://friendsofpatuxent.org> to join online).*