

FRIENDS OF PATUXENT

Big Green Spaces

Brad Knudsen, Refuge Manager

When I think of the National Wildlife Refuge System (NWRS), that is what I tend to think of – “big green spaces.” Large blocks of forest, acres of rolling native prairie, wide open marshlands full of waterfowl and other creatures. Of course, the NWRS is much more than that, given its tremendous diversity of wildlife and habitats which it supports. The largest NWR? With the advent of new marine monuments for which the NWRS shares responsibility with the Department of Commerce, the Marianas Trench National Marine Monument tops them all with over 60 MILLION acres of protected marine habitat, including the deepest place on Earth!! (Region 5 now has its own marine-based NWR with last September’s designation of the 3.1 MILLION acre Northeast Marine Monuments and Canyons off the coast of New England). Of the more traditional “terrestrial” refuges, Arctic NWR is still the record holder at 19.2 million acres. So – what is the smallest NWR in the System? The .57 acre Mille Lacs NWR in Minnesota, two small rocky islands which provide important habitat for the threatened common tern, as well as other bird species such as ring-billed gulls, herring gulls, and double-crested cormorants. So, not ALL refuges are big.

And, of course, not all refuges are green. Charles M. Russell NWR and Desert NWR in Montana and Nevada, respectively, are dominated by tens of thousands of acres of canyons, badlands, desert mountains, and coulees,



Double-crested Cormorant Pair. Wiki Commons

spacious landscapes laced with a jumble of earth tones - tan and rust and red strata of rock and soils. Jagged black granite rocky outcrops make up the bulk of Farallon Island NWR off the coast of California – not much greenery there, either.

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Chair's Comments

The Challenge - Improving Visibility in the Community

Of the 220 plus Friends organizations across the US, many face a significant challenge. In fact many of the 560 plus Refuges in the US have this challenge as well. How many times do we encounter visitors who come through our doors, saying “I’ve lived here all of my life and I never knew the Refuge was here!?” It seems as if this gem of a Refuge and amazing resource that belongs to each person in the US is hidden right in the middle of Laurel.

The challenge is **visibility**. How do we - the Friends - work to improve that? Here are some of the activities which we do: communicate through Facebook; engage folks through our website; contact folks through email; staff the Friends display at community out-

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So, “big green spaces” is just an easy way to think of refuges, while recognizing their incredible diversity of flora and fauna. This collection of “big green spaces” comprises the largest network of lands and waters anywhere on the planet dedicated first and foremost to wildlife conservation. (I never get tired of saying that – if you have ever heard me speak at refuge events or school groups or other public gatherings, it is a phrase I always include!).

If you think of a habitat type in North America, the NWRS has it covered. Tall-grass prairie at Neal Smith NWR in Iowa, bottomland hardwood forest at Yazoo NWR in Mississippi, tundra at Arctic NWR in Alaska, coral reefs at Rose Atoll NWR in the Pacific Ocean, coastal salt marshes at Rachel Carson NWR in Maine, high elevation bogs at Mountain Bogs NWR in North Carolina, freshwater wetlands at the Sacramento NWR Complex in California, prairie potholes at Arrowwood NWR in North Dakota and the Madison Wetland Management District in South Dakota (giving a double shout out to where I spent the first seven years of my career!!), etc. etc.

One drawback, of course, of having these “big green spaces” is they often



California Coastal National Monument. Wiki Commons

attract the attention of developers, public infrastructure projects, etc. As such folks will see ONE landowner and acres and acres of open space, with plenty of room for a transmission powerline right-of-way or a super collider or a border wall. They often have the preconceived notion - “Hey - this would be an EASY place to build exactly what we need - no condemnation of private lands, no lawsuits from individuals, etc.” What they often fail to grasp, at least initially, is these areas have been designated refuges because they are protecting resources of national significance – whether for important migratory bird habitat, an endangered

species, or aiding the survival of anadromous fish. And these places have special protections – tough protections - in place due to that significance – NEPA, the Endangered Species Act, and refuge regulations and policies such as Ecological Integrity and compatibility. The UPSIDE of attracting attention for those kinds of projects is it gives us the chance to educate and/or RE-educate the public about the importance of that particular piece of ground that makes up their NWRS. It also is inspiring to see how the public responds when they have the opportunity to voice their support for the work we do and the important role refuges/green spaces play in their lives.

With the annual National Wildlife Refuge Week celebration approaching from October 8-14, it is the perfect time to reacquaint yourself with one of these “big green spaces.” The NWRS and each individual unit exists for a reason – an important reason. They exist to support wildlife, and they exist to keep us all connected with the wonders that nature provides to us each and every day. Come out and explore a refuge of your choice! 🦅

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

Many of the newsletter contributors and other assistants are volunteers. There are regular contributors, however, we welcome and encourage all volunteers and Friends to submit items for the newsletter by sending or bringing them to:

Editor, Friends of Patuxent Newsletter
ATTN: Ross Feldner
 11811 Ivanhoe Street
 Wheaton, MD 20902

Or email 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			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 19.

CORRECTION

The **Summer Exhibits 2017 in the Hollingsworth Gallery** article was missing the byline. Article was written by *By Faith Leahy-Thielke, Patuxent Volunteer*

Appreciation - Harlan Tucker

By Richard Dolesh, Vice-chair Friends of Patuxent

The Patuxent community lost one of its most dedicated and long-serving volunteers with the passing of Harlan Tucker, former chairman of the Friends of Patuxent, long-serving board member of FOP, and 30-year volunteer for the refuge and research center.

Way back when the vision for the National Wildlife Visitor Center was just becoming a gleam in the eyes of visionary staff and supporters, Harlan was already a staunch supporter of Patuxent. He remained so, tirelessly, till his passing June 17, 2017.

Harlan had a long history of service to his country and community. He was a decorated veteran of WWII, the Korean War, and Vietnam where he earned a Bronze Star. After his military service, Harlan became deeply involved in his community in Bowie and Prince George's County, and he had a special love of parks, recreation and natural resources. He was a member of the Prince George's park and recreation advisory board, a member of the Maryland Recreation and Parks Association, and on the board of the Prince Georges Community Foundation, one of the predecessors of the Friends of Patuxent. He was honored for his service in many ways, including being awarded the Governor's Volunteer and Service Award, Prince Georges County Volunteer of the Year, and he was inducted into the Maryland Senior Citizens Hall of Fame.



Harlan was an original board member of the Friends of Patuxent from 1992. Lucille Brogden, the mayor of Hyattsville for 16 years who was a founding board member and early chairman of the Friends of Patuxent said, "Harlan was always there when you needed him. He was really supportive of the work of the Friends and very dedicated to the mission of Patuxent." Harlan eventually became board chair in 1998 and he served in that role till 2009, and remained a FOP board member till his passing in 2017.

Most Friends and volunteers at Patuxent came to know Harlan well over the years because he was such a dedicated volunteer. He came to virtually every important Refuge event said Nell Baldacchino, former chief of visitor services at Patuxent. "Harlan was very dedicated," said Nell. "He was truly steadfast. There was hardly an event he did not attend to help out or man a table, especially the Refuge Birthday and Wildlife Festivals".

Harlan was involved in many of the fundraising events of the Friends of Patuxent as well. He strongly supported the Run for the Refuge, a 5k fun-run that the Friends hosted for a number of years, and also helped with the long-running Patuxent Wildlife Art Show and Sale.

Lucille Brogden said in her role as chair of the Friends that she could always count on Harlan. "He was willing to listen to all sides of an issue and was courteous to all. He might not always have agreed with me every time, but he surely backed me up when I made a decision," she said.

"We owe him a great debt of gratitude," said Nell. "He did an incredible job in helping to bring support to the development of the National Wildlife Visitor Center from the local community and the state of Maryland."

Current chair of the board of the Friends, Jeanne Latham, said of Harlan, "I knew Harlan in his later years with the Friends of Patuxent. He inspired me with his dedication and loyalty to the Refuge and Research Center. I was impressed that he participated in as many activities of the Friends and Refuge as he did, while remaining very active with many other groups outside the Friends. One thing he always was willing to volunteer for was greeting folks at the Friends display table, whether at an outreach event or event at the Refuge. I know that we will all miss Harlan's smiling face and devotion to our organization."

Aircraft Pilots at Patuxent

by Matthew C. Perry

Part 1 of a 2 part series

Over the years there have been many aircraft pilots who had their offices at Patuxent. I believe Everett “Jake” Chamberlain was one of the earliest pilots who was stationed at Patuxent. He was born in 1916 and received his pilot training during World War II, so he was involved in much of the early work in Canada when the Fish and Wildlife Service was developing the spring and summer surveys to monitor breeding populations of ducks and geese. Many of these skilled individuals also had received training in the fields of biology or natural resource conservation and were also referred to as pilot-biologists or fly-way biologists.

Later in his career in the late 1960’s and early 1970’s, Jake was an observer on many surveys in the Chesapeake Bay area. He used to stay at the home of Maryland State Waterfowl Biologist, Vern Stotts, when they flew the special goose surveys and the annual mid-winter surveys of the Chesapeake Bay. On those days they could not fly



Jake Chamberlain in uniform during World War II with his proud parents.

because of bad weather, they would go hunting with Jim Goldsberry, the pilot-biologist in residence at that time. Jerry Longcore remembers that Jake also attended the Black Duck meeting at Great Oak, Chestertown, Maryland, in 1968, and that he gave aircraft rides to some of the biologists over Maryland black duck habitat. Jerry and Jim are about the only folks remaining that attended that historic meeting.

Patuxent biologist John Maestrelli remembers working with Jake when he and his supervisor, Stan Wiemeyer, were transferring osprey nestlings from Potomac River nests to nests in Connecticut, to help the dwindling population there. They drove to the Beltsville Agriculture Research Center aircraft landing strip where Jake Chamberlain was waiting for them in his Fish and Wildlife Service plane. John sat in the back seat holding a box of birds and Stan in the front seat. John remembers how Jake went through the pre-flight list with the motor running and,

“All of a sudden the cabin filled up with smoke as we were taxiing. Stan and I looked at each other and thought we should bail out ASAP. Meanwhile, Jake casually reached over his seat, grabbed a fire extinguisher, opened his side window, shot the foam into the engine louvers, put the extinguisher back, and continued to taxi. We watched all this incredulously and finally one of us asked him if he was going to check the engine. Jake casually said, ‘No, this happens a lot - starlings like to build nests on the engine.’”

In the early 1970’s, Morton “Mort” Smith was stationed at Patuxent and not only flew surveys as a pilot-biologist, but would become the Chief of the Branch of Surveys in the Office of Migratory Bird Management (MBMO). Mort and I flew together on many mid-



Ed Ferguson during mid-winter waterfowl surveys.

winter surveys and I was always impressed how low and slow he could fly while conducting aerial surveys of the many rivers in Maryland. He would fly until the stall indicator came on and then apply a little more throttle.

Once when I was flying over the Chesapeake Bay from western to eastern shore, the pilot-biologist, Doug Benning, played a trick on me. We were flying very high, which was required for a non-float plane when crossing the Bay, and I had fallen asleep, as I often did when we were not counting ducks. Doug stalled the engine on purpose so the alarm came on. I woke up immediately and realized the joke was on me. Another time I was with Ed Ferguson and we were headed back to the Beltsville airfield to drop me off. I fell asleep from the long day’s activity, but was quickly awakened when Ed began loudly clapping his hands. I was never sure if he was clapping to wake me up, or wake himself up. In any case it was a safe trip as all my trips were. When I completed a flight with Jim Goldsberry, he would often say, “Well we cheated death again.” Although he was joking the comment had a serious tone to it,

as on many low-level flights we were searching for powerlines and other hazards at the same time we were trying to count ducks.

In addition to waterfowl surveys, the pilots were very helpful with radio telemetry tracking studies with ducks. Most trips were uneventful, but in late fall 1973, pilot-biologist Doug Benning and I had a memorable flight. We had completed a full-day of tracking canvasbacks in Chesapeake Bay and had stopped at Lee Airport, Annapolis, for refueling. With aircraft full of fuel we headed out of Annapolis for Beltsville, but immediately had ice accumulating on the windshield. Doug reversed course without hesitation and made a successful landing at Lee Airport. My wife picked us up and he spent the night at my house and retrieved the plane in the morning. Doug told me about how some pilots see clear skies ahead and make the mistake to keep on course. He said pilots call it the “sucker hole.”

Fortunately, the FWS has had very competent and dedicated pilot-biologists and now even contract pilots have to meet FWS regulations in regard to training and safety regulations to keep



Pilot-biologists, Jim Goldsberry and Al Novara, with Amphibian float plane during mid-winter waterfowl survey.

pilots and observers as safe as possible. Two former Patuxent biologists, Tom Custer and Ken Stromborg, had a memorable experience with a contract pilot and plane, while conducting research on the Great Lakes that Tom describes below:

“In 1991, we were up in a single engine plane in southern Green Bay following a cormorant from a colony to a feeding location. This bird took us out into the middle of the Bay and then the plane engine died. We were at about 500 ft going in circles so our descent was rather rapid. We all got out of the air-

plane, which sank immediately. Couldn't see shore and had no life vests. Had a couple of coolers to help us keep afloat. Pilot was successful in getting a mayday off just before going into the drink; also a nearby plane saw us. We were in the water for about an hour until rescued by the Brown County Sheriff Department. The airplane ran out of gas - pilot error.... I remember we celebrated that day and the next...”

Several employees of Patuxent have had private pilot's license, but never flew officially for the U.S.

Government. The first person with a private license I knew was John Maestrelli, mentioned earlier. He helped me locate birds I had instrumented with radio telemetry devices in the early 1970's in his 1941 Taylorcraft plane he kept at Suburban Airport in Laurel. After we duct taped the telemetry antennas to the wing struts we flew over Patuxent Refuge a few times trying to locate puddle ducks I had instrumented as a practice study for our large Chesapeake Bay telemetry study with canvasbacks.

Randy Perry owned a plane that was based at the same small airport in Laurel only a few miles from Patuxent. He also was president of a company that rented aircraft and taught people to fly out of College Park. Before he came to Patuxent he flew many hours with various biologists doing counts of shore birds, muskrat houses, and waterfowl in Louisiana. He also conducted numerous flights with biologists in Minnesota on a wolf project and in California on a California condor project. Many of these flights involved locating various animals using radio telemetry. Our biologists and scientists, who flew as observers as part of the job, had to take a special course before being allowed to fly. Also, the non-government pilots we used and their aircraft had to be pre-certified. These requirements possibly saved lives. 🐦

Part 2 will appear in Winter issue



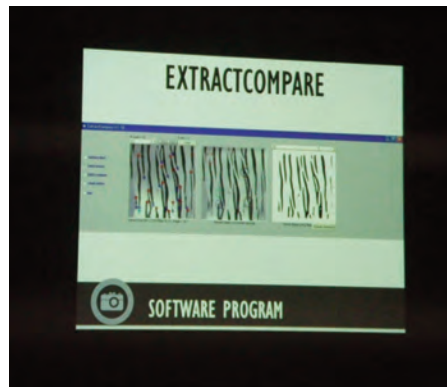
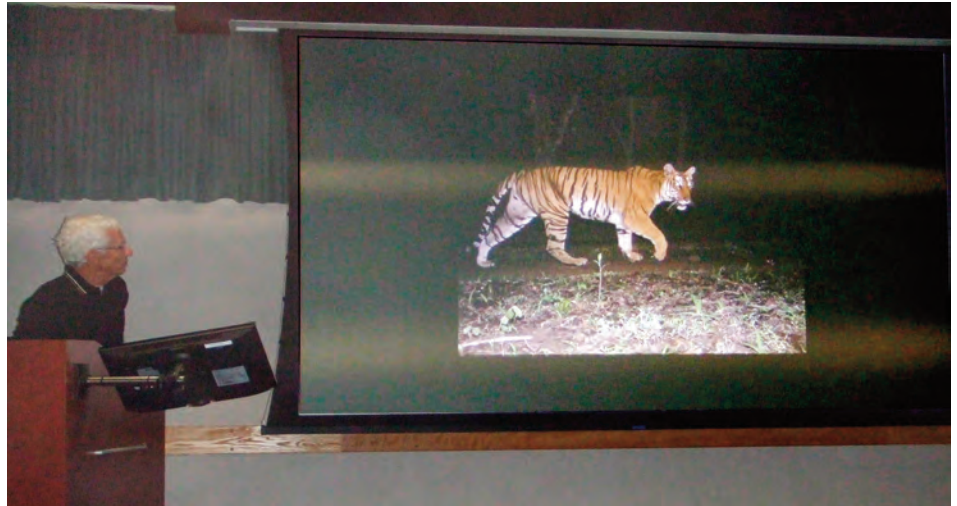
Matt Perry checking tracking antennas after refueling at Lee Airport, Annapolis, in 1973

Trapping Tigers on Camera

August 19th Friends Program

Jeanne E. Latham, Chair of the Membership Committee and Chair of the Friends of Patuxent

Friends members, staff and a volunteer gathered for a wonderful presentation by Jim Nichols, Ph.D. Jim discussed his study of tigers in India, which incorporated the use of camera traps. He worked closely with K. Ullas Karanth, Ph.D., a world-renown researcher of tigers. Specifically, Jim helped determine an estimate of the numbers of tigers for a particular location. And briefly, this is how he did it. At several wildlife sanctuaries in India, many special cameras were set up to capture tigers on digital photos. The cameras had to be protected by a metal box to prevent the cu-



rious Indian elephants from damaging them. The photos captured the identifying markings peculiar to each tiger.

Using biometric calculations, Jim was able to determine the population of tigers in the various areas of the wildlife sanctuaries. Jim informed our group that Patuxent Wildlife Research Center is recognized throughout the world for its superior research techniques, methods and researchers. Of course!

Jim spent his entire career at Patuxent Wildlife Research Center (PWRC), as a research biologist for the U.S. Fish and Wildlife Service, National Biological Service and U.S. Geological Survey. His research fo-

cused on the dynamics and management of wildlife populations. This broad focus led to work on a variety of interesting populations including various ducks in North America, tigers in India, birds in the Brazilian Amazon, seals in Antarctica, alligators in Florida and Louisiana, etc.

Jim is now retired from PWRC, and is still dedicated to the research center's work and is a senior scientist emeritus. From his extensive curriculum vitae, one can see that he has been awarded many distinguished honors and awards, both national and international, throughout his career. He has written numerous papers, books, pub-

lications, and scientific articles. He has been an organizer, instructor, and lecturer for national and international workshops and courses. Additionally, he is an advisor to many wildlife conservation organizations including the Wildlife Conservation Society and the Snow Leopard Trust. Jim's professional work has taken him to many countries including: India, UK, Brazil, Ecuador, Canada, Thailand, American Samoa, Panama, France, Norway, and many others.

Thank you, Jim, for sharing your experiences, photos and personal insights into trapping tigers on camera with the Friends of Patuxent! 🐅

Squirrels in the Attic and at the Bird Feeder

Lowell Adams, Board Member, Friends of Patuxent

Are you bothered by squirrels living in your attic or taking over your bird feeder? Many people enjoy having these small mammals in their yards and take pleasure watching them, although most folks don't want them living in the attics of their houses. Other people consider squirrels a nuisance because they keep the birds from the feeder or damage vegetable or flower gardens. Live capture and relocation has been viewed traditionally by the public as a humane method of dealing with so-called "problem" squirrels. Captured squirrels typically are driven a few miles away and released into a park or some other wooded area on the assumption that the animals will quickly settle into the new environment.

In the mid-1990's, two colleagues and I studied what happens to such squirrels. Thirty-nine eastern gray squirrels trapped in urban-suburban backyards in the Baltimore-Washington Metropolitan Area were radio-collared and released in the interior of the 8,100-acre North Tract of Patuxent Research Refuge. The relocated squirrels did not fare well. Ninety-seven percent (37 of 38) either died or disappeared from the refuge within 88 days of release. Known mortality after one month was 41%. This is a high loss rate. Typically, annual mortality is about 50% in wild populations. With one exception (an animal shot by a hunter), we cannot say with certainty what caused squirrel deaths. Based on field observations, food appeared to be abundant, particularly acorns, and we observed relocated animals feeding at their new sites. I suspect that some squirrels were preyed upon by avian and mammalian predators. One collar was retrieved from the entrance to an active fox den seven days after release and what appeared to be tooth or claw



marks were noted on a number of retrieved collars.

The behavior of resident squirrels trapped and released within their home range differs from the behavior of squirrels trapped and relocated to a new area. Squirrels that are trapped and released in the same spot immediately scurry to the nearest den site and disappear within. Squirrels released into a new environment do not know the location of den sites, which may already be occupied, and the animals run rapidly over the ground for varying distances before scurrying up a tree where they may remain for the rest of the day. Others may travel from tree to tree through the canopy and remain exposed even when darkness falls.

Release of alien squirrels into new habitats may disturb resident squirrels, which are probably at the carrying capacity of the habitat. Diseases

may be spread, social structure of resident squirrels may be disrupted, and competition for food and shelter may increase.

In addition to the high mortality of relocated squirrels, their removal from a problem site simply creates a vacuum that is quickly filled by new animals. I believe that, where possible, one-way doors should be used to remove animals from attics, basements, burrows under decks and porches, and similar situations. Animal access points should then be sealed to prevent re-entry. Compared to live capture and relocation, this approach would be preferable for solving many (but not all) problems. The offending animal would be removed from unwanted areas and be denied re-entry, but would remain in its home range. With this practice, no vacuum would be created for immigration of new animals. 🐿

New Bat Roost Poles Installed at Patuxent Research Refuge

A Strategic Conservation story by Sandy Spencer

What bats roost in your forest? Answering this is extremely difficult, especially since summer roosts of eastern forest bats tend to be scattered and used by small groups or individuals. They look for small cavities in trees, or space under exfoliating bark. Some wrap themselves in clumps of dense leaves or even sleep under leaf piles on the forest floor. To determine what bats roost in Patuxent's forests, we decided to bring the bats to us by making bat roost sites. We received a grant from Baltimore Gas and Electric (BGE) to fund a bat conservation project for the Refuge's North Tract where BGE has a transmission right-of-way. However, rather than building a big bat house, we went with a design that blends in with nature and mimics a natural roost by wrapping "fake bark" (Brandendbark(c)) around the top of tall poles. (Assistant Refuge Biologist John Bourne had seen it used in Kentucky.) At first we thought we could use some of our many existing telephone or power poles that are no longer in use. However, research revealed that, even after decades, treated poles can still have chemical leaching out from the top portions. We did not want to take the chance that the exudate could concentrate under the bark and be absorbed by bats. Also, climbing them to wrap the fake bark would be dangerous.

Installing a bat roost pole.

So we had to find alternative poles. But what? Black locust! Black locust was always preferred for fence posts because of its rot resistant nature. Have you ever tried to buy tall, straight black locust poles. That turned out to be a huge challenge. Either the shipping was pro-



hibitive, or the product wasn't available locally, or both. It looked as if we'd have to return our grant funds. Then one day, while cleaning up some fallen trees and brush we noticed a tall black locust, then another and another. Say, we could just cut those down and use them! So we got busy felling those. Then the next challenge was how to move these to

their respective destinations? Fortunately, this is Patuxent with lots of heavy equipment and a knowledgeable maintenance staff. They were able to lift each one onto a big flat trailer, slowly and carefully take them to each site and offload. Next we were faced with the challenge of getting them inserted into the ground. The North Tract had been used for military explosives testing so one cannot just go digging anywhere. Each site would have to be swept and given the okay by a qualified person, which is expensive. Fortunately, the money we saved on black locust could be applied to this line item. Working together, the licensed "sweeper" and a refuge maintenance staff with an auger at-

tached to a Bobcat, 4-foot holes were dug for each pole. We covered each hole to prevent wildlife falling in, dirt caving in. The day finally arrived in early May when BGE could send a crew (Redheaded Lion Contractors) to actually insert the poles into the holes and

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Patuxent Bioteam's Early Detection/Rapid Response to A New Invader—Wavy-Leaved Basket Grass

By Sandy Spencer

Some bad news we were hoping to never hear finally arrived in late June this year: that wavy-leaved basket grass (*Oplismenus undulatifolius*) is now present on Patuxent Research Refuge. We are very indebted to a volunteer dragonfly expert, and all round good naturalist, Dr. Richard Orr, for making this important discovery. As soon as we learned of the location on the North Tract, we went out to spray it. Shortly after that, another volunteer, botanist David Anderson, found some on our Central Tract, and he went ahead and pulled it (thank you, David!).

Wavy-leaved basket grass uses the same forest understory habitat as Japanese stiltgrass and even resembles it, except for a lower growth form and the characteristic “wavy leaf”, as shown in the photo. It can quickly over-



Wavy-leaved basket grass. Photo by Sandy Spencer



Erin Bailey spraying wavy-leaved basket grass. Photo by Sandy Spencer.

take an area and crowd out everything else. The patch on the North Tract was close to the Patuxent River, but right on the edge of a seldom used dirt road. It most likely came in on the tires of a vehicle, but could have washed in from flooding.

Because of the small patch size and closeness to the road, we think tires were the more likely method.

Patuxent Research Refuge has many non-native plant invaders, some more extensive than others, overwhelming the resources of the Refuge and staff time to deal with it. However, it is very much worth our time to react quickly to a new invasive plant species before it can join the ranks of established invasives.

Please be vigilant for this one and report the location and patch size immediately to a staff person. 🐦

Thank You!



for your generous donation of a bird feeder to the refuge

Fall 2017 in the Hollingsworth Gallery

Faith Leahy-Thielke, volunteer

Thank goodness for seasons - just when you've started to fantasize a move to Maine, September cools us off, but the Hollingsworth gallery is inviting in all four seasons. October and November showcase a repeat and a threepart: James Phillips in October and Jean Phillips in November. Both Phillipses but no relation. December invites volunteers to display their art, crafts and photography.

James Phillips was a city kid raised in Essex, Maryland, but had a unique opportunity in his teens to travel out West for 26 days. He and his companion hiked, camped and photographed from the bottom of the Grand Canyon to 12,000 feet above sea level in the Rocky Mountains. The trip instilled a love of nature and photography in Phillips that continues to this day. Encouraged by his mother, he attended Dundalk Community College for two years "to refine his photography skills." Marriage moved him to Pennsylvania, but Stewartstown is an easy commute to Baltimore where Phillip's day job is with the city.

But photography often develops into a passionate avocation and Phillips has traveled extensively in the States and Canada to catch nature in many facets. His greatest love and favorite subjects are waterfalls and water in motion. To capture them, he prefers using a Canon 7D Mark II with 6 different lenses with "a slow shutter speed which gives them a painted-on effect."

He has won several first-place awards and ribbons and displayed his work at local businesses and festivals. He prints his images on gallery-wrapped canvas - many 17x22", but some at 24x36"! He recently produced a calendar for his local church - a successful project that will be repeated annually. We'll welcome him back; it's been a long time since August 2011.

Our November photographer is on her fourth career! Jean Phillips grew up on

her family's dairy farm in Montgomery County - but farming was (only) her third career. After high school, she took a degree in science at the University of Maryland and taught school for a year. Her second career was a 10 year stint at the National Institute of Health as an immunologist, but she left it to take over her father's dairy farm and raise her two sons. Over the years she transformed the farm operation to grain-hay/straw/vegetables-and finally, "entertainment farming!" (translation-which I needed-suggests corn mazes-and pumpkin patches). But with "retirement" Phillips revived a life-long interest in photography piqued originally by a single-lens reflex camera received as a college graduation present, and furthered in 2008 by a more sophisticated one given her as a Christmas present from her children. Presently, she works with a Canon 5D Mark II and a Canon 7D with a Canon 70-300 mm zoom or a 500mm Sigma lens! Impressive, but this is a granny who snaps polar bears up north as well as butterflies in her back 40. She writes that "photography gives her a good excuse to be outdoors and a way to

share with others the natural beauty she loves."

In the last two years Phillips has been working on the Sugarloaf Trails Association Indian Trailguide, and studying at the Smithsonian annex and "recording spots along the C&O Canal where Native Americans once lived." This year also included a trip to a Florida rookery! Phillips has submitted photos to the Montgomery County Agricultural Fair and "placed" every year since 2009-including two "firsts." Her other festival and exhibit participation are too numerous to list and her work is available from Gaitherburg's Artbarn to dozens of points north. Check out PhillipsFarmPhotography.com.

December brings a special treat - a veritable potpourri of volunteers' talent. Committed so far are: Lucy and Ed Grimes, photography; Louis Buck, carving; Barbara Buck, paintings; Brenda Stone, quilting; Dennis Hartnett, photography; and Mary Ann Hartnett, needlework. Additional last-minute contributors are expected also, so we look forward to a full gallery of goodies-a delightful seasonal array. OK fall, bring it on! 🍁

Calling for Your Articles and Photos Please

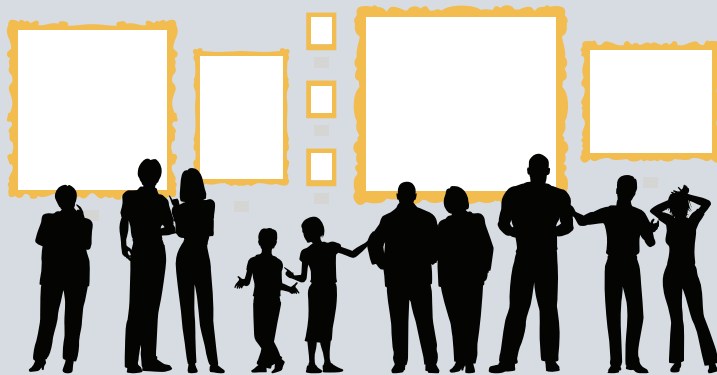
We're looking for articles—your articles—and cool photos for future Friends newsletters. You don't have to be a professional writer. Just jot down a paragraph or two about a nature topic dear to your heart. Or send us a photo or two of a beautiful plant, wildlife, or people at a Refuge or Friends event. And if you will, please include a caption for your photos.

Please consider sending us your article and/or your photos for your next newsletter. Make sure to title your article and include your name and volunteer position. When you send it, put Newsletter Article in the Subject Line of your email. We'd like to hear from YOU. Here's where to send them: ross.feldner@verizon.net **Thank you so much!**



ATTENTION

**The John Hollingsworth Gallery at
The National Wildlife Visitor Center
Will Be Displaying the Artwork of
Current Volunteers in December 2017 and
Artwork by the Current Staff of PRR (FWS & USGS)
in January 2018**



Gallery guidelines require that all artwork that is exhibited feature wildlife, nature and/or environmental conservation issues. Wildlife/habitat images do not need to be of native species. Domestic animals, pets, portraits, manmade structures, works with a religious or political theme or any image that would not support the mission of the Refuge System would not be acceptable for display.

Any and all mediums are acceptable. Photos, paintings, sketches, textiles, castings, carvings and pottery are wanted. We will have use of the glass case in the lobby for displaying artwork as well as the gallery wall.

Items for the gallery wall should be matted and framed or a gallery wrap that can be hung. Quilts and needle work also need to be hangable unless not designed for this (eg. a pillow or sweater).

The gallery wall consists of 6 display panels that are carpet over plywood. Each panel is 69" wide and 63" high. Each volunteer will be initially limited to 2 pieces of artwork for display in the gallery. If there is extra wall space after the works have been hung additional pieces can be submitted.

We have had some awesome volunteer and staff artwork displayed during past exhibits. Plan now to take part in this event.

As exhibit times approach, I will provide additional information on when to bring items to the Visitor Center.

For additional information or questions contact Mary Ann Hartnett, Gallery Coordinator at 2ufrommah@gmail.com

Friends of Patuxent November 7, 2017 Annual Meeting - You Are Invited

The Friends of Patuxent will hold its annual meeting on Tuesday, November 7, 2017, from 6 to 8 PM at the National Wildlife Visitor Center of Patuxent Research Refuge in Laurel, MD.

Each year the Friends use the occasion of the annual meeting to celebrate the past year's accomplishments and to highlight important work being done by Patuxent scientists, wildlife managers, and other conservation experts. We invite you to join us for this special evening. Mark Belton, Secretary of Maryland Dept. of Natural Resources, will be our guest speaker; and there will be time to meet and greet new friends. There will also be refreshments, delicious heavy hors d'oeuvres, beverages and other goodies for your sampling pleasure.

Won't you please join us for this special program and chance to meet and greet the Friends of Patuxent board, Friends members, volunteers, and scientists and wildlife biologists from Patuxent?

Please confirm that you will attend, so we have an accurate number for the caterer. You may call 301-497-5789, or email friends@friendsofpatuxent.org.

The Friends Board of Directors look forward to seeing you, the Friends members, and other interested individuals. 🦩



Conservation & Connecting to Nature at Wildlife Images

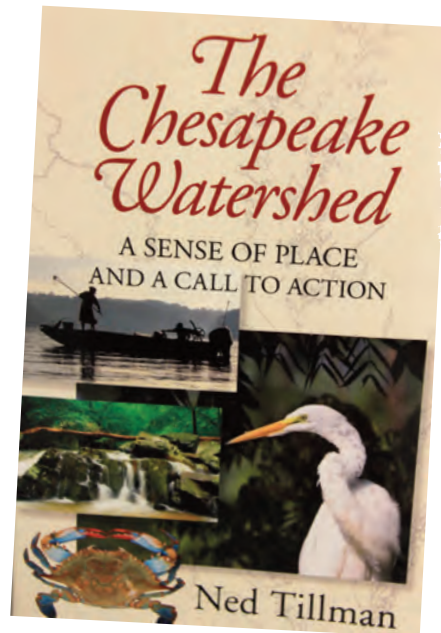
By Pat Simons

Conservation, Environmental Stewardship, & Connecting to Nature

In addition to our extensive inventory of books about birds, insects, bees, mammals, plants, and other wildlife, the Wildlife Images Bookstore also carries books that remind us of the importance of connecting to nature, preserving the places we love, and sharing that understanding and love of nature with others. This month I've selected a few of these books to highlight.

The Chesapeake Watershed, A Sense of Place and a Call to Action by Ned Tillman, is an award-winning book in which the author recalls the Chesapeake Bay area of fifty years ago with chapters focusing on the land, the bay, the watershed, and finally human impacts on the bay. The author's style is easy to read, entertaining, and informative as he roams the bay talking about geology, history, fishing, crabbing, trees, plants, and more. There are, at the end of each chapter and in the book's appendices, lists of actions that individuals, corporations, and government can take to become better advocates for and stewards of the Chesapeake Bay

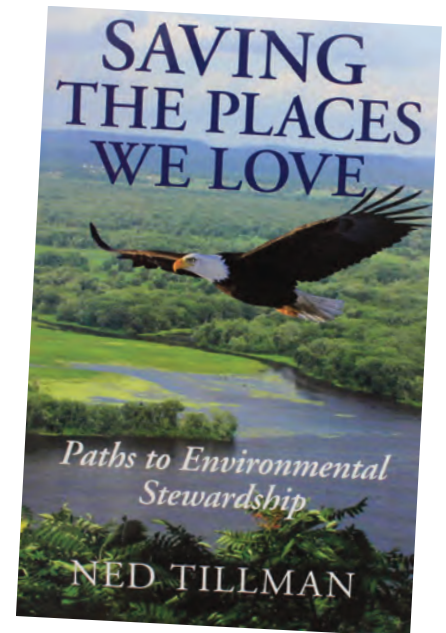
In ***Saving the Places We Love, Paths to Environmental Stewardship***, Ned Tillman delves deeper into the topic of environmental stewardship, and how key people and organizations are working to save natural places across the country, including areas as diverse as the Blue Ridge Mountains, the Cuyahoga River, Santa Barbara, CA, the Great Plains, and Alaska. Combining history and science, he discusses issues such as mountaintop mining, climate change, fracking, groundwater quality, supply, and runoff, habitat loss,



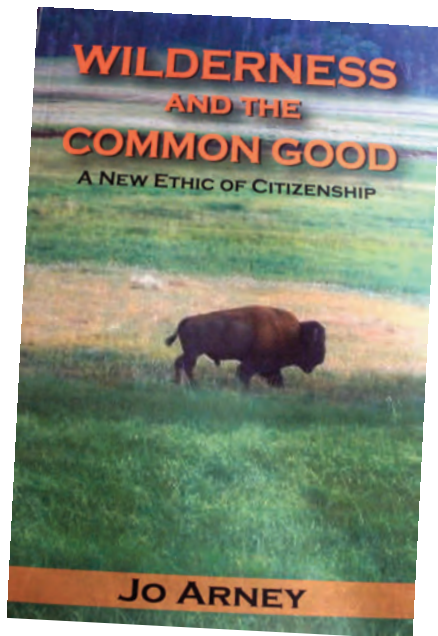
waste disposal, and air quality. The book concludes with a list of environmentalists and notes about their work and publications (Aldo Leopold, Wendell Berry, Rachel Carson, James Hansen, Ferdinand Hayden, Izaak Walton, Howard Zahniser, and others).

Wilderness and the Common Good, A New Ethic of Citizenship by Jo Arney, is a short but powerful essay arguing that wilderness is essential for the common good of our society and that the preservation of such places depends on the will and activism of American citizens. She discusses how education prepares young people for their role as citizens and advocates, the importance of collective action, and how understanding our shared values can lead to compromise. She is ultimately an optimist, believing that young adults will be good stewards of our public lands.

Companions in Wonder, Children and Adults Exploring Nature Together, edited by Julie Dunlap and



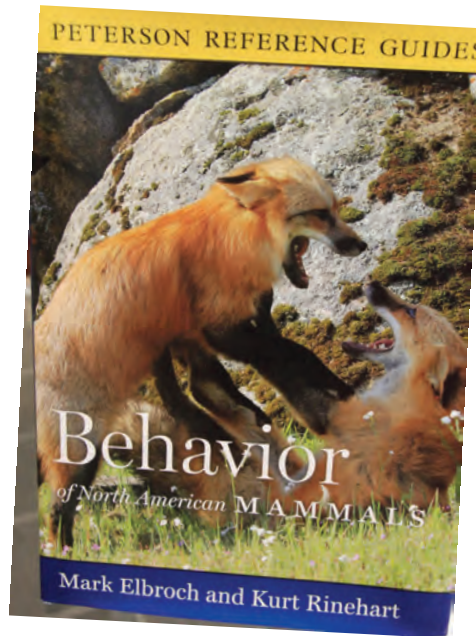
Stephen R. Kellert brings together essays by authors from a variety of backgrounds—including conservationists, nature writers, educators, parents, and grandparents—describing their experiences with nature, and especially how people of different generations can experience nature together. The authors set the stage with a discussion of Rachel Carson's concern for children expressed in an essay she wrote in 1956 about exploring the ocean with her nephew and then move to a discussion of the human cost of our growing alienation from nature as presented by Richard Louv in his 2008 book, ***Last Child in the Wilderness: Saving Our Children from Nature-Deficit Disorder***. Read this book's introduction for background on why experiencing nature is so critical for both the physical and spiritual health of children and our society, and then sit back and enjoy the thirty essays about the authors' outdoor experiences that include exploring tidal pools, birdwatching, fishing, gardening, tracking,



farming, watching and encountering animals in the wild, and more.

50 Ways to Save the Honey Bees (And Change the World) by J. Scott Donahue is, as the title indicates, a list of things one can do to help save honey bees. Just a few of the fifty actions presented include rethinking our lawns, avoiding pesticides, creating a bee bath, being a conscientious consumer, using social media to share information, advocating for public policy changes, sponsoring a hive, buying real (organic) honey, making your own lip balm from beeswax, and working with organizations that advocate for conservation and sustainable farming practices. This is a fun, easy-to-read, but ultimately practical guide to ways each of us can do our part to yes, save honey bees and change the world.

For young readers, **Nature Recycles, How About You?** by Michelle Lord shows how animals use recycled materials to build their homes, protect themselves, and get food. After exploring crabs, wrens, sea urchins, elephants, frogs, beetles and other critters that reuse materials, the author then suggests how humans similarly can recycle. **Keep the Scene Green** is a book of earth-friendly activities such as puzzles, mazes, word searches, secret codes, and more to start children think-



ing about why and how to be more environmentally conscious. The book aligns with Common Core State Standards and a free teacher's manual is available online.

Three of My Favorite New Books

The store is always getting new gift items and books...and often I can't wait to tell others about something new on the shelves. These are just a few of the books recently added to the store's inventory.

Behavior of North American Mammals by Mark Elbroch and Kurt Rinehart, a Peterson Reference Guide, is a comprehensive guide that includes details on a variety of North American mammals. For each animal, there are sections detailing the animal's activity and movement, food and foraging habits, habitat and home range, communication, courtship and mating, development and dispersal of young, interactions among the species, and interactions with other species. From bats to bears, manatees to martens, peccary to pronghorn, the guide includes over fifty different mammals, with photos as well as ink drawings.

Into the Nest. Intimate Views of the Courting, Parenting, and Family Lives of Familiar Birds by Laura Er-



ickson and Marie Read presents a rare view into the breeding and nesting habits of birds. Stunning close up photographs accompany the text that explains the courting, mating, nesting, and parenting habits of twenty-five familiar birds such as hummingbirds, woodpeckers, crows, tanagers, jays, owls, and peregrine falcons.

Over and Under the Pond by Kate Messner, illustrated by Christopher Silas Neal is a beautifully illustrated story of a mother and son paddling around a pond to explore what lives above the water and below. During their day on the water, they encounter and learn about the habits and interactions of a variety of wetlands inhabitants including turtles, beavers, fish, otters, birds, dragonflies, raccoons, ospreys, and moose.

Wildlife Photos, Blue Goose Passports, & Duck Stamps

Blue Goose Passports are back in stock-a great gift for friends, families, children so they can record refuges they visit. Also, don't, forget the store now has the 2017-18 duck stamps. And, if you didn't buy one of Dale Magnum's photos at the *Night on the Wild Side*, we still have a few framed photos in the store (on sale with a 50% markdown). 🦅

Friends of Patuxent Wildlife Holiday Bazaar

Saturday, November 4, 2017

9AM to 3PM

National Wildlife Visitor Center
Patuxent Research Refuge, Laurel, MD

Shop Baldy's Bargains for wild and not-so-wild new & gently used treasures.

Visit Candy Cane Lane (Kid-friendly) shop

Take home a treat from the Bake Sale

Lunch at the Crane Café

MEET LIVE ANIMALS

DOOR PRIZES every hour

TRAM RIDES

(weather permitting)

Play Wildlife Bingo

Enjoy wildlife holiday story time

Shop over 20 vendors providing one-of-a-kind gifts to complete your holiday shopping list...

...and at the same time support the Patuxent Wildlife Research Center and the Patuxent Research Refuge.

Cash, checks, and credit cards.

for more information:

www.friendsofpatuxent.org
or 301-497-5772

Friends of the Patuxent Wildlife Research Center and 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 Patuxent Wildlife Research Center and the environmental education, outreach and recreation missions at the Patuxent Research Refuge. All contributions are tax deductible to the extent allowed by law. Our Combined Federal Campaign (CFC) designation number is **63960** and Maryland Charitable Organization Registration is **2348**



Friends of Patuxent Chandler S. Robbins Memorial Endowment



To Honor his Legacy and Love of Birds

This endowment, requested by the family, is inspired by Chan's lifelong love of birds. The funds will be used to further the appreciation and conservation of birds and their habitats everywhere through education and outreach. A committee representing Patuxent Wildlife Research Center, Patuxent Research Refuge, Friends of Patuxent, and a Robbins family member will direct expenditure of the funds.

An initial project will be to develop an **interpretive sign** about Chan's work and the research he inspired related to identifying, monitoring and studying birds and their habitats. The sign will be located in a visible area near the National Wildlife Visitor Center. Other possible uses of endowment funds may include:

- Youth education programs related to bird appreciation
- Continuing adult education such as a distinguished speaker series
- Research support
- Community outreach

Contributions may be made to
**Friends of Patuxent
for the Chandler S. Robbins
Memorial Endowment**

10901 Scarlet Tanager Loop, Laurel, MD 20708

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

Sights Around the Refuge

Photos by Matt Beziat



Spatterdock Flower



Water Lilies



Anthill

Photos by Ross Feldner



Summer Azure Butterfly



Red fox kit



Northern Mockingbird

Captive Whooping Cranes Being Relocated

No Change Expected to Species Recovery

John French

Approximately 75 Whooping Cranes will be transferred from the U.S. Geological Survey's Patuxent Wildlife Research Center to other captive breeding programs in North America as early as winter 2018.

The decision to place the birds with other facilities will allow the center to focus its resources on species at risk that have not been well-studied and for which little scientific information is available. The relocation is not expected to affect Whooping Crane recovery in the long-term.

Patuxent's captive breeding program for Whooping Cranes has become a model for science-based endangered species reintroduction. After 50 years of work, a mark of the program's success is that it has become more about propagation and less about research.

"When staff at Patuxent first got involved in Whooping Crane recovery, new scientific research was needed on just about every aspect of Whooping Crane biology," said John French, a USGS wildlife biologist and director of the USGS Patuxent Wildlife Research Center. "That research was used to establish captive breeding programs, to develop methods of reintroduction, and more recently to discover how the reintroduced populations are faring. The program at Patuxent has naturally transitioned to a more operational role to produce chicks for reintroduction, which is outside our research-focused mission, and is something that other institutions are capable of doing now."

The disposition of the Whooping Cranes at Patuxent will follow the Species Survival Plan that was developed by the joint US - Canada International Recovery Team. The plan provides a formal set of procedures to manage all captive Whooping Cranes as a single population, no matter where

they are housed, and to meet the goals of recovery as set out by the Recovery Team. The future locations of the birds has not yet been determined.

Captive breeding is just one part of the strategy for conservation and restoration of Whooping Cranes across North America; the Recovery Team also attends to the management of wild and reintroduced populations of Whooping Cranes. Whooping Cranes are still endangered, but the overall population has grown more than 10-fold over the past 50 years as part of an international recovery effort.

In addition to the Whooping Cranes, approximately 80 Sandhill Cranes will also be transferred. These cranes are frequently used as surrogates for Whooping Cranes in captive experiments, and assist in breeding by incubating Whooping Crane eggs.

Q: Why is this move taking place?

A: The decision to place the birds with other facilities will allow the center to focus its resources on mission-focused research, such as species at risk that have not been well-studied and for which little scientific information is available. Additionally, when staff at Patuxent first got involved in Whooping Crane recovery, they were providing the new research needed to establish captive breeding program. After 50 years of work, Patuxent's role in breeding Whooping Cranes has transitioned into being less about providing new science and more about producing chicks for reintroductions, something many other locations are capable of taking on.

Q: What organizations will the whooping cranes be distributed to? Where?

A: There are several other institutions now breeding Whooping Cranes which will likely become the home for some of the birds. The International Recov-

ery Team is also actively seeking other partners.

Q: When will this take place?

A: We anticipate that transfers may occur as early as winter 2018, but the timing depends on the work of the International Recovery Team responsible for the Species Survival Plan.

Q: Can media members cover the transfer of the birds (travel with the birds, etc.)?

A: We're still determining the process and timing of transferring the birds, and how many will go to each location. Until we know that, it's premature to discuss any potential media coverage of the transfers.

Q: Is this move being made in response to the FY 2018 Budget Proposal?

A: The program was identified for closure in the FY 2018 President's Budget, but through Patuxent's Science Planning process, the USGS had previously identified the whooping crane propagation program for closure.

Q: How will the transition take place?

A: We are still at the beginning stages of planning out the transfer of birds. We move birds every year to reintroduction sites, so we are well-versed in handling and transporting these animals with the greatest of care.

Q: Will the change impact the health and population of the birds?

A: The initial impact of the transfer of Whooping Cranes is likely to reduce the rate of production of Whooping Crane chicks from those birds, at least temporarily. In the long term we foresee no detrimental impact of Whooping Crane recovery.

Q: How many Whooping Crane chicks does Patuxent release into the wild annually?

Continued on page 18

Rachel Carson's Connection with Patuxent

by Matthew C. Perry

The connection that Rachel Carson had with Patuxent has been confusing and often mis-represented by persons at Patuxent and by those outside of the Patuxent community. Much of the problem deals with the fact that Ms. Carson and Patuxent were so clearly associated with the deleterious chemical DDT after World War II up until the ban of its use in 1972. Ms. Carson was a marine biologist working at the Fish and Wildlife Service headquarters in the 1940's-50's as an editor for most of the time. Long-time Patuxent researcher, Dr. Chandler Robbins, who died on March 20, 2017, remembered when Ms. Carson edited his publications in the 1950's. These studies were initiated in the mid-1940's to determine the effects on birds by the aerial spraying of DDT on forests of Patuxent. He considered her an outstanding editor and that she learned and became interested in the DDT problem through these early Patuxent publications.

Ms. Carson's first contact with Patuxent was as a speaker at one of the sessions for the "In-Service Training" program initiated by Fish and Wildlife Service Chief, Ira Gabrielson, for Service field staff and conducted in Snowden Hall. The program began in February 1941, but ended with the initiation of the US into World War II.

In spite of her early editing of Patuxent manuscripts on DDT, Ms. Carson in her book *Silent Spring*, published in 1962, does not mention Patuxent Research Refuge or the Stickels, who were the dominant pesticide researchers. In 1946, Patuxent scientists, including Dr.

Lucille Stickel, published five major articles about DDT in the *Journal of Wildlife Management*. Ms. Carson does make reference once to "a research facility near Laurel, MD," and also mentions research conducted by Patuxent scientist, Dr. James DeWitt, on his studies of the effect of DDT on pheasants. Among the hundreds of references at the end of *Silent Spring* only publications by Patuxent scientists, James DeWitt and



Dr. Lucille Stickel



Ms. Rachel Carson

Robert Scott, are listed. No publications by the Stickels are listed. Ms. Carson mentions several times in *Silent Spring* that specimens from the field were sent to the Fish and Wildlife Service, which most likely was Patuxent.

During the late 1950's, Rachel Carson visited Patuxent several times to review contaminant literature in the Patuxent library, which was created and maintained by Dr. Stickel's husband, Mr. Bill Stickel. The Director at the time, Mr. Arnold Nelson, told me this when I visited him in an assisted living home in Massachusetts when he was 99 years old. He personally drove Rachel Carson several times from Washington (or Maryland) where she was living. She did not interact with Lucille or Bill, and

when I asked why, he would not tell me, other than to infer that they had professional differences.

I personally feel that the Stickels considered Rachel to be too negative about pesticides. In conversations I had with Bill, he always was quick to mention that "it was not the use, but the misuse of pesticides that was the problem." He spent many hours of his personal time on weekends at Patuxent

spraying exotic plants he disliked with herbicides. He remarked to one of our researchers that he kept a whole bunch of pesticides in his porch pantry.

A large picture of Rachel Carson, shown in this article, has been proudly displayed in the hallway of the Patuxent Director's Office in Gabrielson Laboratory since the building was opened in 1969. Once when a researcher asked Dr. Stickel who the person was, she looked at the person in disbelief

and remarked, "That is Rachel Carson!"

In the end, although the relationship between Lucille Stickel and Rachel Carson might not have been close, the important fact is that both were outstanding professionals in the role they played with environmental contaminants. Dr. Stickel was a leader of the contaminant research program at Patuxent (later becoming Director), while Ms. Carson had the distinct qualifications and passion to take complicated research findings and make them understandable by the public. The ban on DDT and other persistent organo-chlorine pesticides in 1972 would not have occurred as early as it did without the work of both of these pioneering women. 🐦

New Bat Roost Poles Installed at Patuxent Research Refuge

Continued from page 8



raise them. We first wrapped and secured the Brandenbark around each pole. But when we uncovered some of the holes, we hadn't figured on the holes filling up with water from underground! The complexities just never seem to end. Redheaded Lion quickly resolved that problem by buying some Quikcrete, which needs water, to fill in around the poles. That was a blessing as it made them more secure. It was a nail-biting hair-raising experience to watch them try to guide each pole, connected by a chain to the bucket of a backhoe, into its respective hole. The chain would slip, the pole would swing and turn, plus the poles needed to go in upside down (the fatter end up) so there would be enough surface area for the bats. But by 4 o'clock sharp—quittin' time—each was upright and straight, curing in its Quikcrete. Now we wait.

You can see one of them easily at the Wildlife Viewing Area on Patuxent's North Tract. Next we plan to use acoustic detectors to record and analyze bat calls near the roosts, or collect guano to analyze the DNA to species, or it can be fun to simply watch bats emerge at dusk.

Many thanks to Baltimore Gas and Electric, Bill Reese (BGE), Redheaded Lion, Jeanne Latham (Friends of Patuxent), Ricky Kreitzer, Adam Conger, John Bourne, and Erin Bailey. 🐦

Captive Whooping Cranes Being Relocated

Continued from page 16

A: In 2017 we raised 30 chicks for release into the reintroduction projects.

Q: Who manages the whooping crane population in North America?

A: A joint US-Canada International Recovery Team develops and guides the strategy for Whooping Crane management, which is detailed in the Whooping Crane Recovery Plan. The International Recovery Team has worked with a variety of scientific partners and the Association of Zoos and Aquariums to develop the Species Survival Plan for the captive flock, a formal set of procedures that allow all captive Whooping Cranes to be managed as a single entity or population, no matter where they are housed.

Q: Your release says you'll be shifting your resources to study "species at risk that have not been well-studied and for

which little scientific information is available." What species fall into that category? What will you be studying?

A: Science needs of partners are always evolving, and USGS strives to adjust our portfolio accordingly. For example, the U.S. Fish and Wildlife Service plans to consider the need for Endangered Species Act protection for more than 300 species over the next 7 years, and very little information is known for many of these species. Many of them are aquatic species (fish, or mussels and other invertebrates) and often found in the rivers of the Southeast United States. There is also increased interest in research on the impacts of offshore wind power development on seabirds. Both of these are areas where USGS can make scientific contributions. These topics represent a shift for us so our plans for new research are still being formed. 🐦

Friends of Patuxent Wildlife Holiday Bazaar

Saturday, November 4, 2017 • 9AM to 3PM
National Wildlife Visitor Center

DONATE: Donations for Baldy's Bargains Thrift Shop may be left at the Visitor Center until October 25. Clean out that closet and donate what you can't use to Friends of Patuxent. Don't forget to fill out a donation form. Please - *NO* posters, flat art, or bed linens. Books, CDs, and DVDs are always popular.

VENDORS: We're still looking for vendors. Vendors pay \$10 to reserve a space and 15% of sales. We provide a table. If you would like to be a vendor or know someone who would, contact Mary Ann Hartnett at 2ufrommah@gmail.com or leave a message at 301-497-5789.

BAKE: Don't forget the Bake Sale. Donations for the Bake Sale may be left at the Visitor Center starting Friday, November 3. Cookies, bars, snack mix, quick breads, and coffee cakes are most popular — doesn't have to be fancy, just homemade and delicious.

VOLUNTEER: Come and join us as a volunteer on Friday, November 3 as we get set up for the Bazaar and on Saturday, November 4. We have a lot of fun and there are plenty of chances to shop. To volunteer contact Jeanne Latham at jelatham@verizon.net. Refuge volunteers and Friends of Patuxent members welcome.




Chair's Comments

Continued from page 1

reach events and at Refuge events; conduct Friends programs; and host education or outreach events at the Refuge - like the Monarch Festival or Night on the Wild Side. Many of us, I'm sure, talk with our family members, friends, neighbors and work associates about Patuxent. And you may have invited them to the Refuge or shared special stories about it - like the Raptors Reign program or the terrific new window treatment at the Visitor Center that helps prevent bird strikes. That's great - thank you!

Do you have a few creative ideas that would expand the Friends outreach and effectiveness?

We, the Friends, would like to hear your ideas and suggestions. If you would like to share your ideas, or join us in our efforts to get the word out about our fantastic Refuge and all it has to offer, please contact me at jelatham@verizon.net. 

We invite you to join!

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)
- 10% discount in our Wildlife Images bookstore 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

FRIENDS OF PATUXENT BOARD OF DIRECTORS 2017

Jeanne Latham, Chair
 Richard Dolesh, Vice-chair
 Clarence "Sparky" Sparks, Secretary
 Robert Schroeder, Treasurer
 Lowell Adams, Director
 Charles Deegan, Director
 Kenneth Lavish, Director
 Dale Mangum, Director
 Matthew Perry, Director
 Barbara Richman, Director

LIAISONS

Diana Ogilvie, Patuxent Research Refuge Liaison
 Shannon Beliew, USGS Patuxent Wildlife Research Center, Liaison
 Douglas Meister, Esq., General Counsel

FRIENDS OF PATUXENT BOARD MEETINGS

Friends Board Meetings will be held at 5 PM at the Visitor Center. The Friends Annual Meeting will be held on November 7, 2017. The board meetings for the next fiscal year will soon be determined.

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 member Renewal

Individual (\$25/yr), gift: FOP bookmark Family (\$35/yr), gift: FOP decal

Contributor (\$75/yr), gift: History of Patuxent DVD Sponsor (\$250/yr), gift: FOP hat

Life (\$500), gift: FOP shirt (or other) Please size: S M L XL XXL XXXL

Life-65+ (\$300), gift: FOP shirt Please size: S M L XL XXL XXXL

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

Donation \$ _____ Make check to "Friends of Patuxent" and mail to address on reverse side of this page.

Check here if you prefer not to have a gift, and instead have your entire dues support Friends of Patuxent.

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



Friends of Patuxent



Friends of Patuxent

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

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10901 Scarlet Tanager Loop
Laurel MD, 20708-4011

Phone: 301-497-5789

www.friendsofpatuxent.org

WE INVITE YOU TO JOIN!

Friends of the Patuxent Wildlife Research Center and 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 PWRC and the environmental education, outreach and recreational missions at the PRR. 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:

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- 10% discount in our Wildlife Images bookstore 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 reverse side)