The Flyer

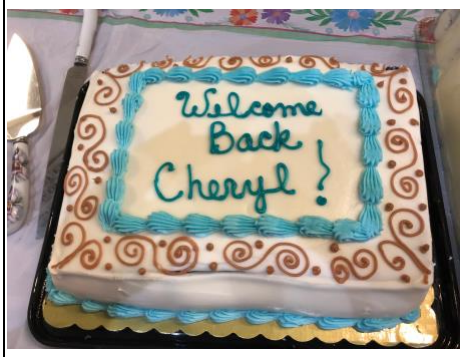
Newsletter of the Williamsburg Bird Club

Vol. 43 No. 5 williamsburgbirdclub.org **May 2019**

PRESIDENT'S CORNER

By Cheryl Jacobson

Thank you, Cathy Flanagan (Refreshment Committee Chairperson) and all the WBC Members who attended the April meeting and welcomed me back following my surgery with a beautiful cake and many hugs! I appreciate all of you (see photo of the cake)! Also, see the photo of the turtle…at times my progress feels as slow as a turtle but will get there. As in Aesop's Fable, "The Tortoise and the Hare," slow and steady wins the race. The birds keep urging me on and are part of my recovery.



For those of you who could not attend in April, you were missed. The presentations by our three Ornithology Research Grant recipients were excellent. It is so important that we continue to support this generation by our financial awards as well as through the giving of our time by attending their presentations. Several members commented on how much the research appears to be advancing as reflected in the quality of the presentations.

Spring Migration and Window Collisions

Spring migration is happening! I hope you are seeing some of the new arrivals. I am always thrilled when a Black-throated Blue Warbler returns to my yard area. He has been coming since 2015. Could it be the same bird? I wonder! See my photo to the right.

I want to share with you Audubon's information about migration and how it is the most dangerous time of the year for birds, partly because

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PROGRAMS

W&M Integrated Science Center, Room 1127
7 pm

By Judy Jones

Journey to Guyana – May 15th

Our speaker in May is a very familiar face, our own Bill Williams, speaking about his recent journey to Guyana. Please mark your calendars and come join us! His talk will definitely be both educational and enjoyable!

Future Williamsburg Bird Club (WBC) Programs

As you know, we don't meet in June, July, or August. But, come September, our speaker will be Chance Hines, a research biologist with CVWO. He will be talking about the 'things songbirds eat' – specifically the diet of the migratory birds in the fall and how that affects their physiological state. I think this will be another terrific program. We look forward to having you join us!

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many birds migrate at night and are drawn to the lights from buildings. Their website indicates that millions of birds are killed every year by colliding with buildings, especially during migration. In fact, studies estimate that **between 300 million and one billion birds are killed each year** from these collisions, making it one of the top causes of bird deaths. Our last newsletter detailed some actions we can do to prevent collisions on our private property. Currently, there is proposed legislation that addresses the issue regarding federal property. It is The Bird-Safe Buildings Act, led by Rep. Mike Quigley (D-IL) and Rep. Morgan Griffith (R-VA), and will ensure that new or renovated federal buildings adopt bird-friendly guidelines. There are solutions that can reduce these needless collision deaths, from turning off building lights at night, to using bird-friendly glass or other materials, or limiting the use of glass. These simple and cost-effective practices can drastically cut down bird deaths. **Please urge your members of Congress to cosponsor and support the Bird-Safe Buildings Act, a bipartisan, common-sense solution to help birds avoid collisions with buildings.** You can do so by going to the Audubon web link at:
https://act.audubon.org/onlineactions/cFKDdto0hEC6HqnxgB0y-Q2?ms=policy-adv-email-ea-x-advocacy_20190426_bird-safe-buildings-alert&utm_source=ea&utm_medium=email&utm_campaign=advocacy_

Single Use Plastics/Take the Pledge

May is our last meeting before summer vacations. Remember, there are no meetings in June, July, and August. I will use this opportunity to provide some more information on "single use plastics." Consumer and government awareness of a plastics crisis is increasing. Only recently have some interesting alternatives begun to appear, primarily biodegradable and bio-sourced plastics (though most of the options have their own set of downsides). Because of this, it is important that we are aware of three important terms:

Degradable

Degradable plastics are petroleum based and have other chemicals (including heavy metals) added. All plastics are degradable, either because they're intentionally broken down (like if you take a hammer to a plastic cup) or through the natural degradation of the material, which could take hundreds of years. When a label says "degradable," there's really no telling how long the plastic sticks around after you throw it away. Are degradable plastics a greener alternative to regular plastic bags? Unfortunately, experts say they're probably just as bad for the planet. You see, degradable plastics don't "return to the earth;" they just break down into millions of tiny pieces of plastic. That makes them harder to remove from the environment and easier for animals to ingest. Some of the "microplastics" left behind enter the food chain via smaller species like plankton, fish, and birds, eventually making their way into human bellies. Degradable plastics go into the general waste bin. They're not suitable for compost bins or worm farms. Don't be fooled by "recycled plastic," either. It's recycled, but may not be biodegradable

Biodegradable

Biodegradable plastics can be made from sustainable materials, like rice husks, or they can be made from oil. And like degradable plastics, they contain chemical additives that give them certain properties. Here, the added chemicals allow them to break down under the action of microorganisms, usually bacteria. Industrial composting is necessary to heat the bioplastic to a high enough temperature that allows microbes to break it down. Without that intense heat, bioplastics won't degrade on their own in a meaningful

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timeframe, either in landfills or even your home compost heap. If they end up in marine environments, they'll function similarly to petroleum-based plastic, breaking down into micro-sized pieces, lasting for decades, and presenting a danger to marine life. Like "degradable," the term "biodegradable" says very little about what happens to a plastic bag when you dump it. Because we want to protect the environment and our birds, we must be careful about **Greenwashing**… when we as consumers are misled about how sustainable a product truly is. The marketing is getting us to feel good about what we're buying, but the reality is the systems aren't in place to accommodate for those materials. As with degradable plastics, there's no way of knowing just how long it takes before a biodegradable plastic bag breaks down completely. **Another problem is that there are no restrictions on the toxic residues that these plastics may leave behind. Some biodegradable plastics are better than others, but the only way you know is to ask or seek answers before you buy.** Biodegradable plastics are not suitable for the compost pile. They go into the general waste bin along with the degradables.

Compostable

Compostable plastics are made from renewable raw materials like corn starch and soy protein. Bacteria digest this type of plastic and turn it into compost. A compostable plastic bag must meet certain requirements to earn its label. For example, it must biodegrade within a specific timeframe. It can't leach heavy metals or other harmful residue, can't be toxic to worms, and must be able to support plant life. Collect your food waste and organics in compostable plastic bags. One option is: Bag To Nature Small Kitchen Bags which I recently purchased at COSTCO. This is a sturdier option. Because these are heavier in weight, they don't break down as fast. They're really not meant for home composting, although they can be. It'll take a whole lot longer than thinner bags would, though! The thinner/quicker option is BioBags. Note that consumer reviews state some leaking and tearing. I have started a simple compost pile in my back yard following these steps I found on the web:

1. Spread 4 inches of woody, chunky, or coarse brown ingredients, such as straw, corn stalks, or dead perennial stems, as your pile's base. This rough layer promotes aeration.
2. Sprinkle each layer with water as you build the pile so that it has the dampness of a wrung-out sponge. Also sprinkle in a few handfuls (or shovelfuls) of native soil here and there. You don't have to add soil with every layer.
3. Spread 4 to 5 more inches of brown materials, such as dry leaves or shredded paper.
4. Spread 2 to 3 inches of green materials, such as spent garden plants and grass clippings.
5. Continue alternating layers of browns and greens, moistening as you build. Finish up with a layer of browns on top.

Take the Pledge: National Geographic is urging people to pledge to do their part at https://www.nationalgeographic.com/environment/planetorplastic/ Planet or Plastic? is National Geographic's multiyear effort to raise awareness about the global plastic trash crisis. Go to the page at the link above to take the pledge and to learn more about ways to reduce your use of single use plastics. You can help reduce the current 9 million tons of plastic that are ending up in the ocean each year. Even reducing your use of one single plastic item a week will have an impact. Change happens when each of us start small and do our part.

MAY 18 - BREEDING BIRD ATLAS BLOCK-BUSTING FIELD TRIP

By George Martin

Saturday's field trip will be a little different this time. The Club has responsibility for 18 priority blocks for the ongoing Breeding Bird Atlas project, and we'll use the typical day for our May field trip to initiate coverage on a few of those blocks. There will be at least four teams of two to three birders covering blocks from Prince George County south to Emporia. If you are interested in participating, please contact George Martin at grm0803@gmail.com to be placed on a team. The effort will likely last much of the day. Details as to departure time and location will be settled by each team. Be a part of this wonderful program!

GRATITUDE FROM THE VSO

By Shirley Devan

The VSO appreciates the Williamsburg Bird Club's generous support of Virginia's Second Breeding Bird Atlas (VABBA2) and the donation of $500. Your donation and the commitment it signifies means a lot to this important project, one of the VSO's most challenging efforts.

Per Dr. Ashley Peele, Virginia's Second Breeding Bird Atlas Director, reports "In 2018, we waved hello and goodbye to the halfway point for this project and are now blazing ahead toward the finish line in 2020. First, season three highlights:

- Swainson's Warbler and Chuck-Will's-Widow were confirmed breeding in Southwest VA in 2018. A female Chuck was flushed off her nest in Lee County, while multiple Swainson's Warblers were confirmed in Buchanan, Dickenson, and Washington Counties.

- In 2018, birders reported 136,428 breeding observations to the VABBA2, a 3,000% increase from pre-VABBA2 eBird submissions!
- Another significant benchmark achieved in 2018 was the completion of 120+ Priority Blocks (PBs), as well as a 20% increase in statewide priority block survey time. Much of this increase is a result of local blockbusters (folks who spend one or more days intensively surveying a PB with little to no data), and clubs who organized block-busting trips to under-surveyed regions. Many thanks to these dedicated volunteers!

Regional Spotlight for Season 4: Attention must now turn toward the southern swath of Virginia's counties stretching from Southampton to Lee County. Season four is the year to begin filling in southern VA. As we look toward year four, we will be pushing out new resources to help guide volunteers for our last two field seasons."

Your donation is critical for the VSO's mission and the success of this project. **THANK YOU so much**.

REPORTED SIGHTINGS AND ACTIVITY

(Photo credit is attributed to authors of the sightings, unless otherwise noted)

April 7

Jan Lockwood shared her first sighting of a Ruby-throated Hummingbird in her yard, "We first noticed him (definitely a male!) around 6 p.m. on Sunday, April 7, hovering in front of the John Clayton Honeysuckle, also the location of one of our hummingbird feeders. He has since been to both feeders, but I've been unable to get a photo of him. He's fast, flighty, and unpredictable!"

April 20

Mary Anne and John Fennell reported a Rose-breasted Grosbeak at their feeder.

April 24

Shirley Devan shared the Ruddy Duck is still at Warhill.

April 26

Melinda Cousins sighted a male Rose-breasted Grosbeak feeding at her hopper feeder.

April 28

Mary Anne and John Fennell shared a Black and White Warbler at their bird bath, which is the first time one has been seen in the yard. "He had a good bath," Mary reported.

Sherry Hancock caught this Osprey couple on the stand at York River State Park.

May 1

Dave Chase reported an interesting battle of Red-tailed Hawks and Cooper's. A known Cooper's Hawk nesting area was recently visited by some Red-tailed Hawks, which entered close to the nesting site, and an ensuing battle began. Much ado about feathers flying and lots of hawk noise. The Cooper's did a nice job of defending their territory: Cooper's – 1, Red-tailed – 0.

APRIL 20TH – GREAT DISMAL SWAMP FIELD TRIP

By George Martin; Group Photo by Catherine Millar; Palamedes Swallowtails and Prairie Warbler Photos by Rose Ryan

On Saturday, April 20, fifteen birders from the club traveled to Great Dismal Swamp National Wildlife Refuge for a bird walk with Bob Ake. The heavy showers stopped just as the group arrived at the parking area at the end of Jericho Lane. Bob then led the group on a walk along Jericho Ditch. Several warblers were seen, many were heard. A few members of the group were able to catch a fleeting glimpse of a Swainson's Warbler as it flew from one well-camouflaged perch to another one even deeper in the thickets. After the walk, several participants then drove to Lake Drummond, the largest natural lake in Virginia, within the refuge.

APRIL 27TH – NEW QUARTER PARK BIRD WALK

By Jan Lockwood; Photo by Shirley Devan

A pleasantly cool and clear morning, although the wind kept the birds down. The highlights were two Black and White Warblers exploring every nook and cranny in the bark of two close trees, and an Osprey chick in the nest at the marina.

APRIL 20TH – FREEDOM PARK BIRD WALK

By Nancy Barnhart

This was the brave crowd in the one moment it stopped raining (well, mostly stopped). We lasted 1.5 hours until the inches of rain started to outnumber the birds!

PROTHONOTARY WARBLER NEST BOXES SET UP NEAR FORD'S COLONY NATURE TRAIL

by George Martin

Two weeks ago, Rexanne Bruno approached Shirley Devan, who monitors Prothonotary Warbler (PROW) nest boxes for the Coastal Virginia Wildlife Observatory, about setting up PROW nest boxes within Ford's Colony (FC). The habitat near sections of the Nature Trail, particularly around Longhill Swamp Creek near the Edinburgh entrance to the Nature Trail, appeared suitable for PROW. Rexanne obtained the support of Ryan Lee, Project Maintenance Manager for the FC Homeowner's Association.

On Wednesday afternoon, April 17, Rexanne, Shirley, and George Martin set off on the Nature Trail to put up the boxes. Along the way, one bluebird box was opened, and it was partially filled with fresh moss – a signature of a PROW nest! I've also attached a picture of Shirley Devan setting up nest box #3, while George Martin watches from the bank of the creek. Many thanks to Shirley and Rexanne for the work to get the boxes approved and installed.

EXCITING RESEARCH BY OUR 2018 ORNITHOLOGY GRANT RECIPIENTS

by Cathy Millar

It is with pride that for many years our club has awarded grants to graduate and occasionally undergraduate students who are studying ornithology. Dr. Dan Cristol introduced 2018's recipients, noting that our grants, combined with others, have supported a lot of research and the publication of many papers over those years. The sophistication of their research is impressive, and it is difficult to summarize. If you were unable to attend April's meeting, please take the time to read what your dues help support.

The first master's student, Rachael Davis, was unable to attend as she was at North Dakota State University processing her samples in a lab. Rachael produced a PowerPoint for the meeting to present her research titled, "The Impacts of Mercury Exposure on Cell Aging, as Measured by Telomere Length, in Zebra Finches." She explained that telomeres are protective caps on the ends of chromosomal DNA to protect coding sequences. They are important biomarkers of aging as they shorten as we age. Critically short telomeres result in abnormal tissue function. Her research is to test if the persistent pollutant mercury that is increasing in our environment may be causing telomeres to shorten faster and hasten aging. She is focusing on (1) Does lifetime mercury exposure impact telomere shortening in specific tissues at critical developmental age points? (2) Do these effects vary among different tissue types such as those that act as filters? (3) Within individual birds, are telomere lengths across these tissues correlated? (4) Can telomere loss be expected at an early age? She worked with Zebra Finches exposed to historically recorded levels of mercury as well as non-exposed Zebra Finches. She tested blood and tissues (brain, kidney, heart, and liver) from eggs that they laid; then as hatchlings at day 6; fledglings at day 18; independent from parents at day 35; and sexually mature at day 90. She is tracking telomere loss throughout the bird's lifetime. The finches are individually marked as they are allowed to fly freely around a room and choose their mates and nest boxes. She is expecting an acceleration of telomere length shortening in mercury-contaminated birds. Her research requires very sophisticated equipment and is ongoing. The research is relevant, as levels of mercury in our environment are increasing, and this has the potential to affect every organism whether on land or water. The study of telomeres is a very young field.

Dan introduced the second master's student, Jasmine Parham, whose research is titled, "The Dietary Transfer of Methylmercury in the South River Floodplain." Jasmine will be pursuing her PhD at Duke University where she will continue her research on mercury pollution possibly in the Amazon. Jasmine reviewed how mercury was used by Du Pont in Waynesboro as a catalyst in synthetic fiber production between 1929 and 1950. Strict storage and disposal regulations were nonexistent. In the 1970s, serious mercury contamination of the South River, a head water tributary of the Shenandoah River, was discovered from Waynesboro to Front Royal. Fish still have mercury levels extremely elevated above safety guidelines. She is studying why birds like wrens, that are not eating insects or fish near the river but are living further out in the plain that occasionally is contaminated by floods, may be impacted by mercury. She noted that spiders comprise 30% of the breeding birds' diet and deliver 70% of the mercury to those birds. Most of the previous studies have been about web-building spiders that build their webs over water. Jasmine is studying wolf spiders that are ground dwelling with no webs and form a large proportion of spider

ingestion by birds. They are large insects that can live three years or more and will eat anything smaller than them. She is interested in finding out how, as terrestrial spiders, they are getting the mercury. Are the spiders eating more aquatic insects contaminated directly from the river or terrestrial insects contaminated by mercury deposits in the flood plain? She is using a technique called stable isotope analysis, which traces the flow of nutrients through the food web and can inform her as to whether the spiders have eaten food with an aquatic or terrestrial isotope signature. She collected wolf spiders 100 meters from the river (Dan later added that contaminated spiders have been identified 3-400 meters from the river). She also collected terrestrial as well as aquatic plants and insects to see where they fall on the food chain, so she can map them on a graph and get a good picture of the whole entire invertebrate food web. She has precise GPS coordinates of each sample, so she can see the impact of distance from the river. She is now awaiting the mercury and isotope analysis reports. The resulting data will inform any recovery efforts on the South River, as funds have been allocated for cleaning the river, but her research may show that the contaminated flood plain is also a problem. Her studies will also show how pollutants move through ecosystems as there are many contaminated rivers worldwide.

Dan introduced the third grant recipient, Robert Galvin, whose research is titled, "Comparing Wading Bird Use between 'Living Shoreline' Restoration Projects and Natural Marshes." Bob is interested in what the differences are, if any, of bird use between living shorelines and natural fringing marshes. He noted that sea level rise in the Chesapeake Bay is having a large impact, as it is about twice as high as the global average. Land owners are reporting up to a foot of loss of shoreline per year from erosion. This has stimulated efforts to study ways to protect people's property while integrating protection of natural ecosystems. Bob described natural fringing marshes as narrow bands of vegetation along the coastline that are nurseries for fish, homes for crabs and many smaller life-forms, and which birds use for feeding and shelter. This is a habitat that has received very little study. They protect from erosion and can even trap sediment providing further protection. Where natural fringing marshes are gone, the typical solution has been to armor shorelines with impermeable structures like concrete that reduce wave action but do not provide habitat and long-term land value to the owners. The 'living shoreline' is a management approach that mimics the function of a natural fringe marsh. They take a variety of forms. The type that Bob has been monitoring has a slightly offshore rock sill that deflects wave energy and that is back-filled with sand and marsh vegetation. They are gaining in popularity, but there have been limited studies of how they compare with natural fringing marshes. He has been monitoring 13 pairs of living shoreline and a nearby fringe marsh that both have a similar level of wave action in both urban and rural areas. He has been setting up 25 GoPro cameras to get video footage of the types of birds using them and what they are doing. This summer will be the second of the planned two years of sampling. To date he has documented five species: Great Egret, Great Blue Heron, Green Heron, Spotted Sandpiper, and Yellow-crowned Night Heron. The data so far suggests that smaller birds are more abundant and spending more time at 'living shorelines,' which aligns with his hypothesis that the rock sill might support the presence of more prey items for birds. He's also using audio recorders to identify what birds are around the marsh that may not be directly using it. Bob's research will help determine whether or not 'living shorelines' are a viable alternative or whether more needs to be done to integrate the biological side of management.

Their presentations were followed by a question and answer session. All three students expressed their gratitude to our club for the financial support from our grants.

SUPPORT OUR LOCALLY OWNED BIRD STORES & FELLOW WBC MEMBERS

Backyard Birder Seed & Supply located in Williamsburg at the Quarterpath Shopping Center (near the Kingsmill Harris Teeter) supports the WBC through donations and a 10% discount on purchases for WBC members. For your discount in-store, please inform them you are a WBC member during checkout. https://www.backyardbirder.org

Wild Birds Unlimited located in Williamsburg at Settler's Market in New Town supports the WBC through donations and a 5% rebate on the pre-tax amount spent in store by WBC members. Please inform them you are a WBC member during checkout. https://williamsburg.wbu.com/

CALENDAR

May 3-5	VSO Annual Meeting, Mountain Lake Lodge (details on page 5).
May 11 – 8 am	WBC Bird Walk, Chickahominy Park

Leader: Photography Club	
May 15 – 7 pm	WBC Monthly Meeting (details on page 1).
May 25 – 8 am Leader: Scott Hemler	WBC Bird Walk, New Quarter Park.
June 8 - 8 am Leader: TBD	WBC Bird Walk, Powhatan Creek Trail.
June 22 - 8 am Leader: Jim Corliss	WBC Bird Walk, New Quarter Park.
July 13 – 8 am Leader: Shirley Devan	WBC Bird Walk, Warhill Sports Complex.
July 27 – 8 am Leader: Jim Corliss	WBC Bird Walk, New Quarter Park.
August 10 – 8 am Leader: TBD	WBC Bird Walk, Bassett Trace.
August 24 – 8 am Leader: Jim Corliss	WBC Bird Walk, New Quarter Park.
August 25 – Last Sunday of Month	Due date for submissions for the September issue of The Flyer. Send to the editor, Melinda Cousins.
September 14 – 8 am Leader: TBD	WBC Bird Walk, Lake Matoaka

If you wish to advertise in *The Flyer*, please contact the Editor, Melinda Cousins, via email at 1backyardbirder@gmail.com for further information.

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