

## Williamsburg Bird Club

April 20, 2022

Conducted via Zoom; invited by Ann Carpenter and presided by Nancy Barnhart; 6:30 pm

**Attendance:** 42

**President's Remarks:** President Nancy Barnhart welcomed everyone and expressed gratitude to the students delivering the meeting presentation for giving of their valuable time to share their research with us. The meeting was held via Zoom due to the preference of a majority of the students delivering the presentations. Nancy noted that the presentation was being recorded and the link will be shared with our membership. The link will also be shared with other bird clubs per their request.

**Program – The Recipients of the 2021 Ornithology Grants:** Dan Cristol noted that this is probably the 25<sup>th</sup> time in a row that the recipients of the WBC ornithology grants have presented their research to our club. Dan Cristol expressed his gratitude to our club for helping fund their research before introducing them.

Second year graduate student working with Dr. Bryan Watts, Michael Academia, presented *Osprey and Fish Shortages; Food Addition Study Increases Nesting Success in Mobjack Bay*. Michael also has a fisheries biology degree and grew up in Hawaii as a descendant of a long line of commercial fishermen who strongly believed in sustainable fishing. He described his family's feeling of importance in making friends with birds because before modern technology such as fish finders, they relied on birds to help them locate fish. When Michael moved to the mainland, he fell in love with Osprey and how they can warn us of the presence of overfishing. A 2020 report on the state of the world's fish stock indicated that 20% has collapsed; 40% is over-exploited; and 24% is biologically unsustainable. Locally, the Atlantic menhaden has a long history of being the number one target of fisheries along the Atlantic coast due to their commercial value for fish oil, fish meal, fertilizer and bait. In the 1960s, most of the Chesapeake Bay fisheries closed due to the stock of menhaden being overfished. But Canadian-owned Omega Protein Corporation continues to operate out of Reedville, VA. It's a six-billion-dollar industry operating a fleet of 78 ships and spotter planes. Employing purse seine nets, they remove annually 120 million fish. They have been exceeding the fishing cap by 35 million pounds and have repeatedly ignored probation sentences and millions of dollars of penalties.

Michael stressed that menhaden provide a major ecological service as a food base for many creatures including striped bass, whales, bald eagles and osprey. His research has been determining whether the osprey population within the lower Chesapeake Bay was experiencing fish shortage through a food addition experiment. Every other day, he dropped off two to six menhadens at 16 nests for 7 weeks until the osprey fledged. 13 of the 16 nests succeeded with a productivity rate of 1.13 young per active nest. In the 15 control nests that did not receive additional feeding, only 5 succeeded with a productivity rate of 0.47 young per nest which is a rate lower than during the DDT era. The Chesapeake Bay hosts the world's largest breeding population of osprey and Michael's research indicates how seriously the shortage of menhaden is impacting them. He has shown that supplementary feeding can be an effective and safe tool to reduce the mortality of chicks due to food limitation. Michael also begged that we, as consumers, do not buy fish oil supplements from the Omega Protein Company.

Undergraduate junior student, Grace Phillips, presented *The Impact of Deer Overpopulation on Songbird Abundance, Diversity and Health*. Grace conducted a literature review which is a type of

research that reviews all the work that has been published on a topic in an attempt to synthesize new information and findings that incorporate old and new information. She reviewed 143 articles published between 1944 to 2022. Grace discussed the factors that has led to deer populations exponentially increasing. As a result, there has been an enormous reduction of understory vegetation in forests, as the deer remove the grasses, shrubs, seedlings faster than they can regenerate leaving the forest floor bare. This impacts birds by reducing habitat for those who nest in understory growth and decreases protection from predators. Indirectly, deer impact the bird population when raptors eat deer carcasses containing lead shot which results in lead poisoning. Also, when shot is left behind in a hunting area, it can attract and be eaten by birds like Mourning Doves. Surprisingly, perhaps because of lack of enough food, deer are being documented eating bird eggs from the nest and even adult and fledgling birds! Grace noted that possible mitigation strategies included not using lead shot; reinstating an apex predator; and fencing off areas of forest to allow restoration of understory vegetation. Currently there is no widespread acknowledgement that deer are a problem for birds. It is hoped that the conclusions in this paper will convince counties to do something about the problem.

Undergraduate sophomore student, Emma Noyelle, presented *Is Mercury Really a Widespread Problem for Songbirds? The Definitive Review*. Emma conducted a literature review of 300 articles published between 1960 to 2022. A lot of mercury contamination research has focused on aquatic organisms and fish-eating birds. It had been assumed that songbirds would not be affected. But research has shown unexpectedly high levels of mercury in songbirds. She reviewed how mercury deposited by industry on soil or water is absorbed by plants and aquatic insects and travels on up the food chain to more insects and eventually songbirds. Surprisingly, toxic levels of mercury in the blood have been found in songbirds in remote forest ecosystems that are far from any direct input of mercury into the environment. Songbirds may be more sensitive than other species of birds because birds remove contaminants from their blood stream by depositing it into their feathers; a process called feather deposition. Emma reported that there have been so many studies of the many negative impacts on birds and reviewed some that impacting hatching success and bird behavior.

Graduate student working with Dr. John Swaddle, Moira Meehan, presented *Using Science to Save Birds from Collisions: Can Sound Make Bird-safe Windows Even Safer?* Moira described becoming passionate about this subject when she was an undergraduate intern at Cleveland Museum of Natural History, where she received bird strike victims during migration that were gathered in the city by volunteers of Lights Out Cleveland. It is estimated that annually collision with buildings causes at least auditory warning in addition to a visual one would be more effective in preventing bird collisions with windows. Using Zebra Finches, she tested visual treatment (horizontal window film) and auditory treatment (high-pitched siren noise), individually as well as together, in an outdoor flight tunnel. A mist net was used to prevent actual collisions. The visual treatment by itself proved more effective than using just sound. But the addition of sound increased successful avoidance. Sound may not be a practical option for residences but it may work on commercial buildings during peak times of collisions. The study was small and is worthy of further research.

All the students concluded with expressions of gratitude for our support. The presentation in full can be seen on YouTube: <https://youtu.be/Sx9qPvLWkSU>

### **Business Meeting Announcements:**

**Bird Walks – Scott Hemler:** Scott reported that there was a good turnout of over 20 people at the March bird walk at Freedom Park. The next walk will be:

**Saturday, April 23:** New Quarter Park. Folks should meet at the parking lot at 8am.

**The Flyer- Mary Ellen Hodges:** Nancy announced that Mary Ellen has set April 26<sup>th</sup> as the deadline for submissions for the next newsletter. Members were encouraged to send in photos, sightings and articles.

**New Trivia Contest:** Cathy Flanagan reported on the first trivia contest which is a new regular feature of our newsletter. The first WBC member to email the correct answer receives a \$5 gift certificate to a local bird store. The answer to the trivia question in each issue of *The Flyer* will always be found in the contents of the issue published two months earlier. Cathy reported that there was a winner. She invited members to email her about thoughts for future questions and comments as to why they may have not participated.

**Field Trips – George Martin:** George Martin was absent. Nancy reported that there were so many birds to see at the April 16th trip to Newport News Park that it lasted five hours with a total count of about 55 species. The next field trip will be:

**Saturday, May 21:** Cranston Mill Pond. George is waiting for confirmation of the date and time.

**Spring Bird Count – Jim Corliss:** Jim was absent. Nancy reported that it will be held Sunday, May 15<sup>th</sup>. Jim will release more information about it. Members were invited to be on a team or as a feeder watcher. Nancy noted that the date is also World Migratory Bird Day. The theme this year is light pollution.

**Programs – Patty Maloney:** Patty reported the following:

**Wednesday, May 25:** Peregrine Falcons by Megan Thomas. The meeting will be a joint in-person meeting at the library and via Zoom.

**VSO Annual Meeting:** Shirley Devan reminded members that the meeting will be held at the Dismal Swamp on April 29, 30 and May 1<sup>st</sup>. Field trips starting at 7am will be held at the Washington Ditch, Jericho Ditch and the Railroad Ditch. Members were invited to register on the VSO site for remaining available spaces on the free field trips.

**Child Development Resources – Gary Carpenter:** Gary reported that CDR still doesn't have a fixed date for when they'll be moving. The children are back and using the playroom with the window view of bird feeders. He told them to send him an email if they need anything. He doesn't know if there'll be a viewing room in the facility they're moving to.

**WBC Hats:** Nancy reminded members that new hats are available for ordering until May 10<sup>th</sup>.

**Butterflies at New Quarter Park:** Adrienne Frank invited folks who will be at the April 23<sup>rd</sup> bird walk to join her at 10 am for a walk to spot butterflies and perhaps more birds.

Nancy adjourned the meeting at 8 pm.

Respectively Submitted  
Cathy Millar, Secretary Williamsburg Bird Club  
April 25, 2022