



**Zeke's Island Reserve
Local Advisory Committee Meeting Minutes
Monday, May 15, 2022, 1 pm**

Attendance

<u>LAC Partner Organization Members</u>	<u>Present</u>
Division of Parks and Recreation – FFRA, Jeff Owen	Yes
Division of Archives and History, Stephen Atkinson	No
NC Aquarium at Fort Fisher, Renee Weeks	Yes
Natural Heritage Program, Judith Ratcliffe	Yes
<u>Community Members</u>	
Devon Eulie	No
Stephen Rice	Yes
Angela Marshall	Yes
Jack Housenger	Yes
<u>Others Present</u>	
Elizabeth Pinnix, DCM/NCCR & NCNERR Southern Sites Manager Byron Toothman, Research Biologist NCNERR	

Welcome

The southern sites manager welcomed the committee to the Spring 2023 meeting, reviewed the agenda, and led introductions.

Reserve-wide Administrative Update

The Reserve-wide Update was shared with committee members prior to the meeting. Members had no comments or questions about the updates. The update in its entirety is included as Appendix A.

The site manager provided a reminder from the Reserve-wide Update:

- Local Advisory Committee term expirations - if your term is expiring you have been contacted. The application period will be in June. If you know of others that would like to apply, please send along their contact information or forward the application details when available.

Site Specific Update

General site conditions & research

- The site manager reported about the 9th annual [Terrapin Tally](#) that kicked off this past week at 10 sites across the coast. As a reminder, this is a community science project that aims to collect diamondback

terrapin abundance data in North Carolina estuaries. There are two remaining data collection sessions scheduled for May and June. To-date, there have been 63 diamondback terrapin sightings reported.

- Ms. Ratcliffe mentioned the Natural Heritage Program will try to get a team together next year to participate.
- The site manager reported normal research activities taking place including the System Wide Monitoring Program (SWMP) and regular maintenance associated with the equipment on site. A new research project will take place at Zeke's Island Reserve, conducted by a team from UNC Wilmington. The project will study the ecology of invasive *Phragmites australis* vs. *Spartina alterniflora* by transplanting marsh organs in controlled areas.
 - Ms. Ratcliffe asked if this was exploring management or treatment practices regarding *Phragmites*. Mr. Toothman responded that the study is to understand the ecology of how the two species interact and how *Phragmites* (an invasive species) is impacting our native marsh vegetation. He further explained the project's methods, including marsh organs.
- Ms. Marshall stated that she has been visiting Zeke's Island often and their kayaking season was getting busy. She noted seeing more dolphins than normal in the basin as well as two loggerhead sea turtles, eight diamondback terrapins, and a merlin during outings over the past couple of months. She also mentioned that Kayak Carolina in conjunction with UNC Wilmington's environmental science interns and the Plastic Ocean Project conducted a clean-up at Zeke's Island.
- Ms. Ratcliffe reminded the group about reporting wildlife sightings and that [iNaturalist](#) is preferred for submitting these observations.
- Mr. Owens mentioned park staff observed a red-cockaded woodpecker and pine sparrow at Fort Fisher State Recreation Area near the Zeke's Island boundary.

Spanish-language outreach project

The site manager reported the reserve is hosting a National Oceanic Atmospheric Administration (NOAA) Hollings Scholar who will work to complete the Spanish-language translation outreach products that were developed over the past couple of summers. This will include safety signage at the N.C. Wildlife Resources Commission Federal Point boat ramp, near the rock jetty, as well as translated outreach and educational materials in print and online. The site manager added that the reserve will reach out to N.C. State Parks and Aquariums to inquire about partnership opportunities, requests, or needs related to this effort.

Roundtable

- The site manager provided a Motus network newsletter (Appendix B) at the meeting. The newsletter highlights the collaboration between the reserve, Cape Fear Audubon, Audubon NC, Bald Head Island Conservancy, UNC Wilmington, and Cape Fear Bird Observatory to use radio frequency towers that allow tagged individuals (primarily birds) to be tracked over time. There are currently five towers in our region – Masonboro Island, Lea Hutaff, Bald Head Island, Fort Macon State Park, and Hammocks Beach State Park. The reserve is working on an additional tower at Bird Island Reserve.
 - Mr. Rice asked if this technology is being used to track fish as well. The site manager responded that it does not track species below the surface of the water.
- Mr. Rice also inquired about the use of turtle excluder devices on crab pots. He has noticed during the winter, when the crab pots are staged on land, seeing many without an excluder device. Crab pots used within the Zeke's Island boundary are required to have a turtle excluder device due to the Diamondback Terrapin Management Area (DTMA) designation. The site manager responded that pictures and coordinates can be sent to the reserve, and they will be passed along to the N.C. Division of Marine Fisheries for documentation and potential enforcement by Marine Patrol.
- Mr. Owens reported N.C. State Parks with Fort Fisher State Recreation Area is working on funding to survey the boundary of the Bald Head Island Natural Area that is managed by N.C. State Parks. This is due to the

potential for encroachment on the property at Bald Head Island with expansion of development. He also noted there have been sandbags placed on state property on the south facing beach at Bald Head Island to protect the Dunes Club. He added that the TV series Outer Banks will be filming at Fort Fisher State Recreation Area during July 2023.

- Ms. Weeks reported that the N.C. Aquarium at Fort Fisher will begin their summer camps that visit Zeke's Island and Federal Point ramp area in June.
- Mr. Rice asked Mr. Toothman when the second SWMP water quality station would be functional again. Mr. Toothman responded that the reserve is currently working on the development of storm resilient platforms and research infrastructure and thus the current stations will be upgraded. At this time, there is not an estimate of when that station will operational.
- The site manager asked the committee for input about scheduling future meetings. The consensus was to schedule both spring and fall meetings in the beginning of the year without polling.

Public comments

None

Action Items

- Send Motus newsletter to the committee (Appendix B)
- Share [iNaturalist](#) with the committee
- Share the [Terrapin Tally website](#) with the committee

N.C. Coastal Reserve and National Estuarine Research Reserve Spring 2023 Local Advisory Committee Meetings Reserve-wide Update

Local Advisory Committee Membership

Thank you for your continued service to the reserve's Local Advisory Committees! A number of community member appointments will expire at the end of 2023 and the reserve is seeking community member applications in June 1-30, 2023 for each of the reserve's ten committees. As a reminder, community members may apply to serve consecutive or non-consecutive terms per the [Local Advisory Committee Operating Procedures](#). More information about the upcoming application period will be available in mid-May.

Program Highlights

- Spring **student field trips** to the Rachel Carson Reserve and Masonboro Island Reserve via the Island Explorer Program are starting, and **summer camps** at the Rachel Carson Reserve will start in June in partnership with the NC Maritime Museum.
- The Coastal Reserve's **Training Program** hosted three workshops for real estate professionals this April on living shorelines and low impact development for water quality protection. The workshops were held in partnership with the Brunswick County Association of Realtors and Cape Fear Realtors. At these workshops, real estate professionals received 4 elective continuing education credits. Since 2020, the training program has hosted 11 real estate professional workshops reaching over 700 people.
- The Coastal Reserve and NC Wildlife Resources Commission are gearing up for the 9th annual **2023 Terrapin Tally** to help better understand the overall population status and condition of the diamondback terrapin within the state. This citizen science project takes a snapshot of the diamondback terrapin population numbers in a given area by conducting kayak surveys at specified times and prescribed routes. Terrapin Tally paddling routes are available at 11 locations including: Cape Lookout National Seashore, Rachel Carson Reserve, Calico Creek, Hammocks Beach State Park, Lea Hutaff Island, Masonboro Island Reserve, Carolina Beach State Park, Fort Fisher State Recreation Area, Zeke's Island Reserve, Bald Head Island, and Bird Island Reserve. Data collection will occur during established windows during May and June.
- North Carolina is celebrating the [Year of the Trail](#) in 2023, as designated by the N.C. General Assembly. The reserve will highlight available trails at sites on social media throughout the year.
- Repairs to the **Currituck Banks Reserve boardwalk** are complete and the boardwalk has reopened to visitors. The original footprint of the boardwalk was maintained, and the aging decking boards, benches, and railings were replaced. These replacements are identified as a facility need in the N.C. National Estuarine Research Reserve's 2020-2025 Management Plan. This project was made possible with funding from the Division's N.C. Public Beach and Coastal Waterfront Access Grant Program, DEQ, and NOAA. A big thank you to staff and the DEQ facilities team for their hard work on this project. An event will be held in early June to celebrate the enhanced public access at the site.

Staffing News

- Dr. Justin Ridge joined the reserve as the new Research Coordinator in February. Justin comes to us from the Duke University Marine Lab where he led the Marine Robotics and Remote Sensing (MaRRS) Lab's coastal mapping research program. Justin has a Master's degree in biological oceanography from Florida Institute of Technology and a PhD in marine science from UNC Chapel Hill where his research focused on North Carolina's sounds (and primarily within the Rachel Carson Reserve), examining growth of oyster reefs and their influence on saltmarsh sedimentation and erosion. Justin's recent research includes the application of novel methods

(e.g., drones, deep learning, etc.) for coastal resource management to address human and climatic driven changes, working with the southeast national estuarine research reserves and beyond, along the east and gulf coasts and in Belize.

- Jillian Daly joined the reserve as the new Communications Specialist in February. Jillian is a recent graduate of UNC Chapel Hill with a BS in Environmental Science and a minor in Marine Science, with a strong interest and experience in science communication. In her free time, she enjoys spending time at the Rachel Carson Reserve.
- Several interns and seasonal staff are working with the reserve in Beaufort and Wilmington this summer. Thank you to Friends of the Reserve, the N.C. Internship Program, and NOAA’s Education Partnership Program with Minority Serving Institutions for their support of the internships. Students will work on stewardship and education projects, including Spanish translation of materials to better serve this visitor population.
- NOAA provided capacity building funds to the Division of Coastal Management from its allocation of the Bipartisan Infrastructure Law (or Infrastructure Investment and Jobs Act) to hire time-limited staff to work on conservation and restoration projects. The reserve’s time-limited position will conduct habitat resilience planning and project implementation at the N.C. National Estuarine Research Reserve sites to increase coastal habitat resilience to ensure the sites continue to provide ecological services and protective services to the communities where they are located. The position will be posted soon.

Federal Budget

- The budget table below is a summary of the current status of the federal budget* for fiscal years 2020-2024 as it relates to the N.C. Reserve. The Senate and House are currently working on their versions of the FY2024 federal budget. Thank you to the National Estuarine Research Reserve Association and Friends of the Reserve for their work to educate Congress on the value of the national system and the NCNERR.

Federal Budget Lines	FY2020 Enacted	FY2021 Enacted	Final Omnibus Appropriations FY2022	FY2023 Enacted	FY2024 President’s Request
NERRS Operations	\$27.5M	\$28.5M	\$29.7M	\$32.5M	\$32.5M
NERRS Procurement, Acquisition, & Construction (PAC)	\$4.5M	\$4.5M	\$6.5M	\$8.5M	\$4.5M
CZM Grants	\$77 M	\$78.5 M	\$79M	\$81.5M	\$78.5M

* The federal fiscal year is October 1-September 30. The National Estuarine Research Reserve System (NERRS) budget line provides funding to the 30 reserves within the System through cooperative agreements that are matched by the states, and supports national coordination of programs and implementation of system-wide and competitive projects. The Coastal Zone Management (CZM) grants budget line provides funding to coastal states with approved coastal management programs through cooperative agreements that are matched by the states. The Division of Coastal Management (DCM) receives funding from both budget lines to operate the N.C. National Estuarine Research Reserve

(NCNERR) and N.C. Coastal Management Program. The CZM cooperative agreement that DCM receives provides funding for Reserve staffing, state site operations, and administrative support.

CAPE FEAR REGION MOTUS COLLECTIVE



Evangelyn Buckland

Last year we introduced you to our local Motus towers and the important work they are doing on Lea Island, Masonboro Island, and Bald Head Island. For anyone getting interested in Motus for the first time, Motus towers are automated radio tracking towers that allow for migratory data to be collected over vast distances and for a wide variety of species of birds, bats, and insects. Motus is a collaborative international network where each tower can track a tagged individual within about a 15 km (9 mile) radius.

Researchers from as nearby as UNCW and as far away as the Arctic circle have benefitted from these towers. Below we will highlight some of the data that has been collected and where you can find it too!



Dr. Andrew Vitz



NE Motus Collaborative

Bobolinks that had been tagged in the northeast came through and were detected by the Cape Fear Audubon and Masonboro towers in September, 2022.

Researchers from Massachusetts collected important data when some of their tagged American Kestrels passed through the area on their way south in the fall. One kestrel from that project has been detected by the Bald Head Island and Masonboro towers this spring on the way back north to breeding grounds. This is very valuable information about their migratory routes.

Our towers have been busy detecting migratory birds from all over! These towers are now contributing to data collection that spans our hemisphere. Take a look at some of these interesting statistics.



3 towers

76

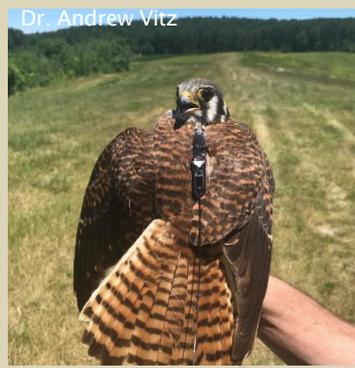
Tag detections

17

Research projects

4

Countries



Lea Island Tower



Marae West



- 13 species detected
- First species detected: Seaside Sparrow
- Most recently detected: American Robin
- Species highlight: Short-billed Dowitchers tagged in the Arctic!

Masonboro Island Tower



Evangelyn Buckland



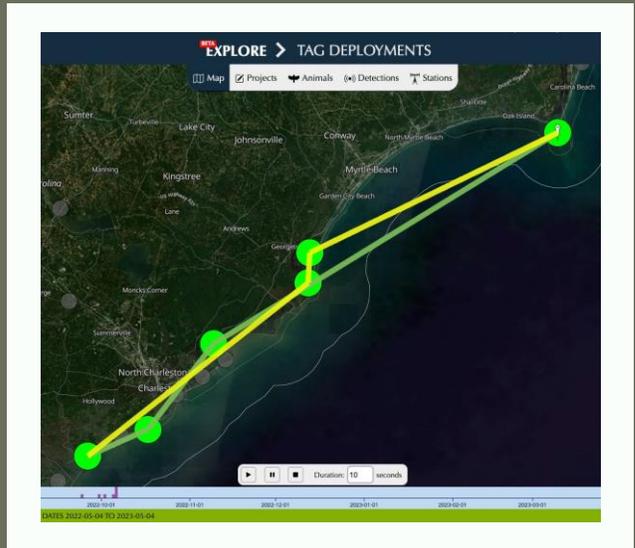
- 18 species detected
- First species detected: Seaside Sparrow
- Most recently detected: Painted Bunting
- Species highlight: Kirtland's Warbler – 3 Kirtland's passed by Masonboro in October!

Bald Head Island Tower

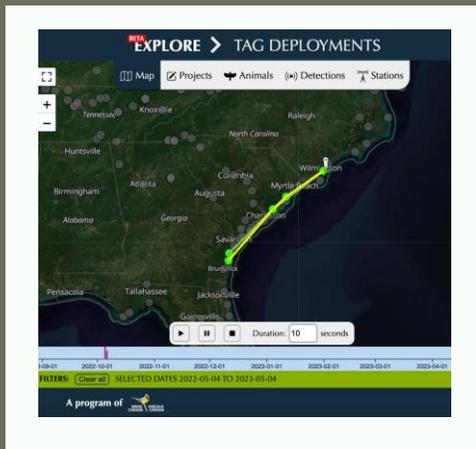
- 4 species detected
- First species detected: Painted Bunting
- Most recently detected: Painted Bunting
- Species highlights:
 - Lesser Yellowlegs tagged in Colombia, South America!
 - American Kestrels have been detected going south and now also returning on their way north!



PAINTED BUNTINGS RETURN



- An adult male Painted Bunting tagged last August at the Bald Head Island Conservancy travelled south in October where it was detected by several towers in South Carolina.
- In April, he started heading north and was detected through South Carolina again before arriving on his breeding grounds near the Bald Head Island motus tower.



- An immature female Painted Bunting tagged in late August on Masonboro Island headed south in October where she was detected by towers in South Carolina and Georgia.
- In April, she started heading north and was detected by 3 towers in South Carolina before being detected again by the Masonboro tower.
- Welcome back!



Prepared by

CAPE FEAR
EST. 2020
BIRD OBSERVATORY