



**Masonboro Island Reserve
Local Advisory Committee Meeting Minutes
Thursday, December 7, 2023, 1:00 pm**

Attendance

<u>LAC Partner Organization Members</u>	<u>Present</u>
NC Audubon, Lindsay Addison	Yes
New Hanover County Sheriff's Office, Corporal Joshua Sarvis	Yes
New Hanover County Planning Department, Dylan McDonnell	No
NC Coastal Land Trust, Jesica Blake, Mellisa Dionesotes	Yes
Division of Marine Fisheries, Anne Deaton	No
Division of Parks and Recreation – Carolina Beach State Park, Chris Helms	No
Natural Heritage Program, Judith Ratcliffe, Scott Pohlman	Yes
UNCW Center for Marine Science, Martin Posey	No
Town of Wrightsville Beach Administration	No
<u>Community Members and Community Organizations Members</u>	
Neal Andrew	Yes
Nevin Carr	Yes
Thomas Carter	No
Dr. Lynn Leonard	Yes
Dr. Zachary Long	Yes
Masonboro.org, Tom Hackler	No
William Raney	Yes
Jud Watkins	Yes
Ted Wilgis	No
<u>Others Present</u>	
Elizabeth Pinnix, DCM/NCNERR Southern Sites Manager Morgan Penrose, DCM/NCNERR Stewardship & Research Specialist Heather Wells, NCNERR Research staff Byron Toothman, NCNERR Research staff Whitney Jenkins, DCM/NCNERR Coastal Training Program Coordinator Abby Williams, DCM/NCNERR Natural Resource Resilience Specialist Dr. Joe Long, UNC-Wilmington Professor Coastal Engineering Program	

Welcome

The southern sites manager welcomed the committee to the Fall 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 the following reminders from the Reserve-wide update:

- This is the last meeting for those LAC members that have terms expiring at the end of the calendar year. New appointments will be present at the Spring 2024 meeting.
- Staffing update: Natural Resource Resilience Specialist, Abby Williams is joining us from the Beaufort office. The goal of this position is to plan and implement resilience plans for Masonboro Island, Zeke's Island, and Currituck Banks reserve sites.

Site Update

Site conditions and seasonal activities

The site manager reported that conditions on Masonboro Island Reserve were busy and consistent during the summer and fall. Staff have been doing their best to maintain a presence on the site and online to address any issues and concerns in a timely manner. She reminded the committee that Masonboro Island can be a difficult place to cover, so please feel free to reach out if you see something concerning or have questions so we can address them as quickly as possible.

4th of July

The reserve contracted the New Hanover County Sheriff's Office (NHSO) to respond to enforcement related concerns on Masonboro Island during the day on July 4th. This year, officers were staged at the Wrightsville Beach Coast Guard station and deployed to the island if needed. The NHSO conducted a few on the ground patrols throughout the day and no arrests or tickets were issued on the reserveMasonboro Island.

The reserve is thankful to the volunteers associated with the Masonboro.org clean-up effort and their messaging that encourages others to pack out their trash and be a responsible user. The reserve will continue to partner with the NHSO in 2024.

Mr. Raney asked if the number of visitors during the holiday is similar to previous years.

The site manager and NHSO representative agreed that numbers have been decreasing over the past few years and that the "party" user group is no longer present. It was also noted that the user group is shifting to families and large number of visitors are potentially moving northward to Pender County beaches and islands.

Mr. Andrews agreed with the change in the visitor group presence at Masonboro Island during the fourth of July holiday.

Ms. Addison added that the additional presence of law enforcement on the mainland and at Wrightsville Beach has helped in this effort as well.

[Terrapin Tally](#)

The site manager reminded the committee about the Terrapin Tally. The 2023 tally took place in May and June and resulted in 509 volunteer hours, 71 routes paddled across the coast from Cape Lookout to Bird Island at Sunset Beach, with approximately 119 terrapins documented. Dates for the 2024 tally can be found [here](#).

Mr. Pohlman asked how many years the Terrapin Tally has taken place and suggested that there could be potential trends with this many years of data collection. The site manager said this is the 10th year of the Terrapin Tally.

Mr. Raney asked if the entire coast has been a part of the nine years of data collection? The site manager answered no, the first six years were exclusively at Masonboro Island Reserve and the last three have included all eleven sites.

American Oystercatchers (AMOY)

Regular monitoring of the reproductive success of the American oystercatcher at Masonboro Island took place during the spring & summer by a reserve technician in collaboration with Audubon NC. The site manager gave a shoutout to Ms. Addison for all her hard work and dedication to this effort, particularly the banding efforts that take place on Masonboro Island.

The site manager reminded the committee that Masonboro Island did not fledge any AMOY chicks during the 2022 season due to predation issues. This year, Masonboro Island had four chicks fledge and a total of 34 nesting pairs that produced 66 nests over the season. Predator management was conducted twice in early 2023 which improved the opportunity for reproductive success. In addition to American oystercatchers, other nesting shorebirds monitored include Least terns, Wilson's plovers, and Willets.

Mr. Carr asked what was the cause of the nest predation? The site manager responded that coyotes are the main source of predation to the nesting shorebirds.

Mr. Carr replied asking if there is an open season for hunting coyotes on the island. The site manager and NHSO representative ensured there is no dedicated season to coyote hunting, and it can be done legally on Masonboro Island at any time.

Sea turtles

Sea turtle monitoring was conducted three times a week via walking/ATV surveys by trained reserve and North Carolina Wildlife Resources Commission (NCWRC) staff. During the season an increase of coyote predation was experienced. Staff deployed different deterrent strategies on sea turtle nests with little success and a new plan is in progress for 2024 that includes improved caging on confirmed nests. High tide events and overwash were also a reoccurring problem with existing nests. The season finished with 46 nests and 33 false crawls (all loggerhead sea turtles).

Ms. Williams asked if the coyotes are permanent or transient predators? The site manager stated there is typically at least one individual that spends all their time on the Masonboro Island, while others will move back and forth from the dredge spoil islands to Masonboro Island during low tide.

Mr. Carr asked when the trapping efforts will take place in 2024. The site manager will follow up with dates.

NOAA Hollings Scholar

During the summer the southern reserve office hosted an intern through the [National Oceanographic Atmospheric Administration's Hollings Scholarship](#) to help continue our effort in translating and creating educational opportunities for the Spanish-speaking communities around reserve sites. She specifically focused on Zeke's Island efforts, but materials are under internal review that will be used at all ten sites.

Environmental Studies Intern – Fall semester

During the fall semester, the southern reserve office hosted an intern working with us from the UNCW Environmental Science department. She was working to gain course credit through helping with site maintenance, regular surveys on Masonboro Island, and other site related activities across the four southern sites.

New and ongoing projects

[Beach Evolution Assessment using Stereo Technology](#)

New research structures were installed on the northern end of Masonboro Island near the nature trail. These two single telescoping poles with cameras attached to them are part of a study conducted by NC State University and UNCW researchers to understand beach evolution spatially over short time periods that can lead to better informed decisions about planning for resilience of our coast.

Painted Buntings

2023 was the first season that painted buntings were tagged at Masonboro Island Reserve by [Cape Fear Bird Observatory \(CFBO\)](#). This research was conducted at four additional sites, including Bird Island Reserve, Fort Fisher State Park, Bald Head State Natural Area, and Carolina Beach State Park. Tagging was conducted on the vegetated dredge spoil islands along the Intracoastal Waterway. There were 168 tagged Painted Buntings at Masonboro Island and this work will continue in 2024 with the hopeful addition of tracking individuals in real time using [Motus technology](#).

Mr. Pohlman expressed he was surprised with the high numbers at Masonboro Island and asked if the CFBO spent as much time tagging at the other locations as they did at Masonboro Island. The site manager answered they spend a higher percentage surveying at Masonboro Island due to logistics.

Storm resilient research infrastructure

Mr. Toothman provided insight to a project taking place at Masonboro Island and Zeke's Island that was funded by a grant from the National Estuarine Research Reserve (NERRS) Land Acquisition and Construction Fund. The grant will provide funding for the construction of storm-resistant research platforms to replace the current research structures at Loosins Creek and Research Creek; build walkways in the marsh to allow for ongoing monitoring activities to continue while protecting the marsh from damage; and will provide for interpretive signs at the Currituck Banks and Masonboro Island Reserves along the nature trails. Permits for this project were received in December 2023 from the Division of Coastal Management and pre-construction meetings are planned for early 2024.

Mr. Toothman reassured the committee that these updates are necessary for research to continue, and all new infrastructure will be as discreet as possible.

Ms. Leonard asked where the marsh boardwalks will start in reference to the marsh edge and if there was a need for discrete signage near the boardwalks to inform the public using the site. Mr. Toothman informed the committee the boardwalks will be five meters in from the marsh edge and should not be visible from the waterway. The site manager added that signage has been discussed and we have not

ruled that option out if needed. The site manager will send an update to the committee when construction plans are confirmed.

Interpretive signage

In August, staff and volunteers installed new educational interpretive signs on the north end at the nature trail from the sound to the beach front. These signs are also funded by a grant from the National Estuarine Research Reserve (NERRS) Land Acquisition and Construction Fund. Make sure you go and check them out!

Mr. Raney asked where the [Chronolog](#) was located. The site manager responded it is along the nature trail at the peak of the secondary dune on the way to the beach front.

Mr. Andrews asked if the reserve has considered the impacts of a sign and Chronolog being located on top of the dune. He expressed his concern for visitors walking on the dunes to access it. The site manager ensured that impacts were considered when installing signage on the site. The location of the Chronolog was placed on an existing social trail that provides a learning opportunity for the public and did not require the establishing of a new trail.

Guest Speaker

Dr. Joe Long presented his ongoing research focused on sediment dynamics and natural evolution of barrier islands with Masonboro Island Reserve as a test site. Dr. Long explained the methods they use to understand barrier island change including pre- and post-storm monitoring, drone and other aerial imagery mapping, and wave and sediment transport modeling. This research aims to identify areas that are most at risk and understand the processes behind these results. This will help inform land managers so future restoration and resilience planning can take place. The slides presented at the meeting can be found [here](#).

If you have any questions, please contact Dr. Long directly at longjw@uncw.edu.

Roundtable

Mr. Andrews highlighted that the Masonboro Island Explorers Program (ILX) has successfully brought over 1,000 fifth grade students to the island. He reported that Senator Michael Lee has appropriated funding to support and expand the ILX program and Masonboro.org hopes to expand this program outside of New Hanover County.

The site manager asked what their plan for expansion was? Mr. Andrews responded they do not have a definite definition of what expansion would look like, but they have begun adding charter schools to fill empty spots left over due to the change in county school system rules.

Mr. Raney asked if there has been any progress on acquisitions. The site manager informed him that there has not been any progress, but this is still a high priority because there are funds available to support this effort.

Mr. Andrews asked about the channel marker buoy on the island and if there is a plan to remove it. The site manager told them it had been reported to the US Coast Guard and they opted to leave the marker and simply replace it with a new one. She added this is not the first time this has happened, and it was added to our marine debris list that is sent to the marine debris clean-up crew funded by the NC Coastal Federation.

Public comments

None

Action Items

- Next meeting: **Tuesday, April 16 @ 1pm - NHC Arboretum (6206 Oleander Drive)**
- The site manager will send predator management dates for committee awareness.
- The site manager will provide updates on installation of Storm Resilient Research Infrastructure.
- The following links provide access to the UNCW Coastal Ocean Research Monitoring Program (CORMP) that hosts two weather stations on Masonboro Island as well as still photographs captured daily from research infrastructure on the northern portion of the island.
 - [North end weather station](#)
 - [South end weather station](#)
- For more information about Motus and Cape Fear Bird Observatory, check out their [newsletter](#).

N.C. Coastal Reserve and National Estuarine Research Reserve Fall 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 special thank you to members whose terms are expiring at the end of this year and did not reapply to serve – the reserve, as well as the division and department, are very appreciative of your service and input. Recommendations regarding community member/organization applications submitted earlier this year are in review for terms beginning in 2024.

Program Highlights

- This year the Coastal Training Program offered **workshops and partner engagement meetings** for decision-makers throughout coastal North Carolina. Multiple events served 533 professionals including real estate agents, local government staff, federal and state agency staff, and land use planners delivering science-based information to protect and manage NC's coastal resources.
- Students and educators gained **in-the-field experiences** at the Rachel Carson and Masonboro Island Reserves this year. Over 50 students participated in summer camps in partnership with the N.C. Maritime Museum and over 40 educators received free continuing education credits through the Teachers on the Estuary and Coastal Explorations programs. Students from Carteret, Onslow, and Craven Counties traversed the Rachel Carson Reserve and the Masonboro Island Explorers program hosted fifth grade students from New Hanover County in partnership with Masonboro.org and Carolina Ocean Studies.
- The reserve continues celebrating the **Year of the Trail** in 2023, as designated by the N.C. General Assembly. Guided hikes at the Kitty Hawk Woods and Bald Head Woods Reserves and events at the Currituck Banks and Bird Island Reserves provide opportunities for community members and partners to come together to experience these protected places while staff highlight the habitats and programs that occur at the sites. Thank you to the partners who helped make these a success! Additionally, interpretive signs were installed along trails at the Masonboro Island and Bird Island Reserves and along the Currituck Banks Reserve boardwalk highlighting the unique features of the sites, flora and fauna, ecological processes, and research conducted at the sites.
- The reserve's **Site Stewards Volunteer Program** significantly enhanced the program's capacity in managing the Currituck Banks, Kitty Hawk Woods, Buxton Woods, Rachel Carson, Masonboro Island, and Bird Island Reserves this year. Since January 2023, over 100 volunteers have logged more than 650 hours of stewardship work at reserve sites. Site Stewards observe and record data such as site condition, marine debris, infrastructure damage, and species observed in the field and report findings back to reserve staff. Thank you, volunteers!
- The **Scuppernong Water Study Engagement** Team, comprised of the Coastal Reserve, Albemarle-Pamlico National Estuary Partnership, The Nature Conservancy, and NC Sea Grant, hosted a public meeting in October to gather local knowledge on flooding to inform the development of the Scuppernong Regional Water Management Study and model funded by the Division of Water Resources; the engagement for the study is supported by NOAA Digital Coast Connects funding. Also included in the public meeting was an asset mapping exercise for Washington County and the Town of Creswell in conjunction with the division's Resilient Coastal Communities Program – these communities are just starting in Phase 1 & 2 of the program. This was done in partnership with SWCA Environmental Consultants, who has been paired with these communities by RCCP. Over 100 community members attended the meeting.
- The reserve introduced its "**Discover the NC Coastal Reserve**" tour last month which is a multi-year campaign spanning 2023-2026 to connect target audiences with the program and places with

events to be hosted at reserve sites along the coast. The tour kicked off in June with a soft launch at our Currituck Banks Reserve with a successful grand reopening and dedication of the refurbished boardwalk (watch a [short video](#) of the event). Local Advisory Committee members will be invited to the site-based events so stay tuned for upcoming event information.

- The reserve is planning a **Research Symposium** for March 20-21, 2024 to highlight work conducted across reserve sites with posters and presentations from researchers including students, faculty, partner agencies, and staff. This will also be an opportunity for the research community to network and provide input on future research priorities.

Research Fellowship Updates

- **2023 NC Coastal Research Fellow Announced**

Juan Zuluaga, a PhD student at University of North Carolina Wilmington is the 2023 North Carolina Coastal Research Fellow. Juan's research will look at how birds regulate their temperature through behaviors to cope with heat in the summer at the Bird Island Reserve. [North Carolina Sea Grant](#) and the [N.C. Coastal Reserve and National Estuarine Research Reserve](#) jointly fund this opportunity, which is open to graduate students across North Carolina. With funding for one year, recipients conduct research within one or more of the Coastal Reserve's 10 sites. Learn more about this year's fellow and project [here](#).

- **NOAA Margaret A. Davidson Fellows**

The [Margaret A. Davidson Graduate Fellowship](#) provides funding to graduate students to conduct research within one of the 30 reserves in NOAA's National Estuarine Research Reserve System. Fellows address a key coastal management question to help reserves, scientists, and communities understand coastal challenges that may influence future policy and management strategies.

- Marae West, NC's first Davidson fellow, completed her fellowship this fall. Click [here](#) to learn more about Marae and her work on the impacts of sea level rise on wintering populations of saltmarsh and seaside sparrows at four reserve sites (Rachel Carson, Masonboro Island, Zeke's Island, and Bird Island Reserves). Congratulations to Marae!
- Daniel Bowling, a PhD student at North Carolina State University, is in the second year of his two-year fellowship and is continuing his work to assess the effectiveness of using remote sensing to monitor intertidal oyster habitat and develop a model to support future coast-wide population assessments and for Reserve sites to be able to quickly detect and respond to changes in habitat health. Daniel's fellowship will wrap up in 2024.
- NOAA is recruiting for the **2024-2026 Davidson fellow cohort**. More information on the fellowship, application process, and NC management needs is available [here](#). Applications are due **December 4, 2023**.

Staffing News

- Abby Williams joined the Division in September as the Reserve's Resilience Specialist. Abby will develop resilience plans, secure funding for, and implement projects on the ground at the national reserve sites to increase habitat resilience to ensure the sites continue to provide ecological services and protective services to the communities where they are located. Abby comes to us from the Division of Marine Fisheries where she served as the Cultch Planting Biologist and is working at our Beaufort office. This is a new time-limited position that is funded by capacity building funding provided by NOAA to the reserve through the Bipartisan Infrastructure Law.

Upcoming Student Opportunities

Application periods for Summer 2024 student opportunities in the Northern Sites and Beaufort offices are currently open.

- Three **State of NC Internship** opportunities are available at the Beaufort office for summer 2024. Applications are due **January 8, 2024**, and more details will be available on the reserve’s website. The opportunities are focused on summer educational programming, training and stewardship, and research.
- The Friends of the Reserve (FOR) is requesting applications for the **2024 NC Coastal Reserve Undergraduate Internship**. This internship encourages promising and talented students from traditionally underserved and underrepresented populations to pursue study and careers in coastal and estuarine science by gaining professional experience working with the Coastal Reserve for the summer. The 2024 intern will work with staff on stewardship activities at the northern sites (Currituck Banks, Kitty Hawk Woods, and Buxton Woods Reserves) and will be based out of the Northern Sites Office at the National Park Service headquarters in Manteo. More details are available on FOR’s website [here](#) and the deadline for submitting applications is **January 19, 2024**. FOR is a 501(c)(3) nonprofit organization that supports the N.C. Coastal Reserve and National Estuarine Research Reserve, including its sites and programs.

Federal Budget

- The budget table below is a summary of the status of the federal budget* for fiscal years 2020-2024 as it relates to the N.C. Reserve. Congress has not passed the FY2024 federal budget, and the federal government is operating under a continuing resolution based on FY2023 allocations until January 2024 when the continuing resolution expires. 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	FY2022 Enacted	FY2023 Enacted	FY2024 President’s Request	FY2024 House Mark	FY2024 Senate Chair Mark
NERRS Operations	\$27.5M	\$28.5M	\$29.7M	\$32.5M	\$32.5M	\$29.7M	\$33.3M
NERRS Procurement, Acquisition, & Construction (PAC)	\$4.5M	\$4.5M	\$6.5M	\$8.5M	\$4.5M	\$4.5M	\$8.5M
CZM Grants	\$77M	\$78.5 M	\$79M	\$81.5M	\$78.5M	TBD	TBD

* 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.