



Masonboro Island Reserve
Local Advisory Committee Meeting Minutes
Wednesday, November 20, 2024, 1:00 pm
UNCW Center for Marine Science - Habitat Conference Room

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; Mellissa Dionesotes (call in)	Yes
Division of Marine Fisheries, Chris Stewart ; Zach Harrison	Yes
Natural Heritage Program, Scott Pohlman	Yes
UNCW Center for Marine Science, Dr. Lynn Leonard	Yes
Town of Wrightsville Beach Administration	No
<u>Community Members and Community Organizations Members</u>	
Neal Andrew	No
Nevin Carr	Yes
Thomas Carter	No
Keni Rienks, Surfrider Foundation, Sarah Cavrak/Robert	Yes
Dr. Zachary Long	Yes
Masonboro.org, Tom Hackler (Richard)	Yes
William Raney	Yes
Jud Watkins	No
Karen Dunn	Yes
Jordan Nason	Yes
<u>Others Present</u>	
Elizabeth Pinnix, NCNERR Southern Sites Manager Morgan Penrose, NCNERR Stewardship & Research Specialist Paula Gillikin, NCNERR Stewardship Coordinator Anna Poston, NCNERR Biological Technician Byron Toothman, NCNERR Research Staff Heather Wells, NCNERR Research Staff Evan Buckland, Cape Fear Bird Observatory Jack Kilbourne, Masonboro.org	

Welcome

The southern sites manager, Elizabeth Pinnix, welcomed the committee to the Fall 2024 meeting, reviewed the agenda, and led introductions.

Reserve-wide Administrative Update

The Reserve-wide Update was shared with committee members prior to the meeting. The update in its entirety is included as Appendix A.

Ms. Pinnix provided highlights from the Reserve-wide update:

- Reserve staff provided two public educational outreach opportunities to celebrate National Estuaries Week during September 21-28. The first event was an on-site bioblitz event with Masonboro Island site stewards and the second event was the [Femme in STEM event](#) at the NC Aquarium at Fort Fisher where 1,551 visitors attended the event and were able to learn about the reserve & other programs that participated for the day.
- The Stewardship Coordinator position that has been vacant since August 2022 was recently filled by Paula Gillikin, the former Central Sites Manager in Beaufort.
- Educators that support the Masonboro Island Explorers program, a partnership between the reserve, Masonboro.org, and Carolina Ocean Studies, attended reserve-hosted training in the spring to gain up to date information about ongoing research and species monitoring at Masonboro Island that can be incorporated into field trips. The curriculum taught for these trips was reviewed in 2024 by the reserve's Education Coordinator, Lori Davis and updates were provided during this training. Additionally, the reserve created a new virtual educational resource that can be shared publicly with educators that makes all the information available and simple and easy to locate through the embedded links. This resource can be found as Appendix B.
- In June 2024, an email update was sent to all special activity authorized users to inform them of two new changes:
 - Beginning in 2025, Special Activity Authorization (SAA) applications are required to report participant numbers from the authorized activity they have applied for in the previous calendar year.
 - Additionally, we informed applicants of a policy that states visitors at reserve sites may only keep five sand dollars each. This policy is specific to dead sand dollars, as live collection is not permitted. This policy was created after consultation with experts and partner management agencies as the result of complaints and natural resource pressure at the Rachel Carson Reserve but has been adopted across all applicable reserve sites and began implementation in June 2024. The goal of this policy is to ensure all visitors have the opportunity to view and collect, if desired, dead sand dollars and to ensure that sand dollars continue to contribute to the site's natural character and function.
 - Surveys are being conducted at the Rachel Carson Reserve to better assess this policy. Further input will be solicited in a year.

Mr. Raney inquired about the role of dead sand dollars in the ecosystem.

Ms. Pinnix informed the committee that sand dollars when they die naturally break down and become substrate and habitat. If there is a large extraction of a natural resource, it could potentially impact the overall ecosystem function.

Mr. Carr asked if there was a complaint specific to Masonboro regarding sand dollar collection?

There was not a specific complaint about Masonboro but due to the similar habitat and potential for a similar level of sand dollar collection, the reserve included all sites with this species and will reassess after one year of data collection and input.

Mr. Johnson asked if there was a list of who is applying for a Special Activity Authorization and asked for clarification on who would be required to apply.

Ms. Pinnix described that the reserve hosts a running list of companies or organized events that have applied for the authorization, including but not limited to, local ecotour companies, one-time events and ferry operators.

All organized or commercial activities must apply for the authorization at least 30 days prior to the event in order to give staff sufficient time to complete the process. For more information about the Special Activity Authorization, please visit our [website](#).

Site Specific Update

General Site Conditions

- Conditions are consistent with previous years. Camping is active and many visitors are enjoying the site conducting compatible and traditional activities. Many research projects are ongoing, and equipment may be present in various locations. Please reach out if you see anything concerning. The abandoned sailing vessel on the northern portion of the island along Masonboro Channel has been reported and we have been in contact with NC Wildlife Resources Commission (NCWRC) for next steps to have it removed. Stewardship staff have been completing routine fish surveys at Masonboro and Zeke's Island to address gaps in species presence data. A variety of techniques including seine and sweep nets were used and the primary species encountered at Masonboro were spotfin mojarra, pinfish, and penaeid shrimp. To date, 16 different species were identified through this effort and surveys will continue throughout the year to capture seasonal variation.
- Earlier in 2024, site managers across the ten reserve sites implemented a new internal reporting tool to better track and document examples of misuse at the sites. Since beginning in January 2024, 50 total cases of misuse have been documented across the sites. The highest documentation of misuse occurred at Masonboro Island (19) and Buxton Woods (12) Reserves.
 - The most common types of misuse at Masonboro included vandalism, littering/dumping, and disallowed uses. Examples include vandalism of signage, abandoned personal items (camping gear, trash, etc.), vegetation damage, installation of structures, and fireworks (disruptive noise). Most incidents have been resolved or are in progress.
 - Examples from other reserve sites include disallowed uses such as non-permitted infrastructure built on Reserve sites and fireworks. Documented cases of misuse include activities such as visitor use conflicts (between hunters and recreators), inappropriate visitor behavior, tampering with water quality structures, stranded vessels, encroachment, and crab pots in designated crab spawning areas.
 - This is helping our stewardship team document and quantify the issues we experience on the sites and will begin to help identify trends so we can better mitigate and manage the sites for the safety of visitors and preserving the natural character of the site.

Ms. Dunn suggested adding a QR code to the signs on site that allow the public to submit observations of misuse to help with staff reporting.

This suggestion was noted and will be discussed internally.

Seasonal Activities

Species monitoring

- Sea turtles
 - Masonboro Island ended the 2024 season with 40 loggerhead nests, 2 green turtle nests, 39 loggerhead false crawls, and six green false crawls. There were five nests lost to the unnamed storm on September 16.
- Shorebirds
 - American Oystercatcher reproductive success monitoring on Masonboro Island was conducted by Audubon NC staff with reserve support. Preliminary stats resulted in 33 pairs of oystercatchers nesting on the island which resulted in 12 chicks fledged. This was an increase from zero fledglings in 2023 which was the result of heavy predation activity, overwash and high tide events. Other species documented using the island to nest include Wilson's plover, least terns, common nighthawks, and willets.
- Seabeach Amaranth
 - The reserve in partnership with the UNC Botanical Gardens and Fish and Wildlife Service have been working since 2023 to conduct Seabeach Amaranth surveys in southeast North Carolina as well as attempt reintroduction efforts at Masonboro Island Reserve.
 - In late May, Reserve staff identified an area on the northern ocean-facing beach that was suitable habitat for the plant and with leadership from the botanical gardens, seed plantings were conducted. Throughout the summer, staff watered and documented growth of the plants. Hundreds of seeds were planted and resulted in many individuals maturing. The goal was to get the plant to seed so it would reintroduce seeds to a lacking system.
 - Unfortunately, the entirety of the area was overwashed for many days from the unnamed storm in September resulting in the loss of almost all the remaining plants. We are hopeful that some of the seeds dispersed to come back next season.
 - The project has concluded and there are no plans or funds to continue this effort at this time.

Ms. Addison reported there were 33 American Oystercatcher pairs, 30 of which nested, resulting in 0.36 percent for parent to fledgling ratio. The goal is 0.55%.

Mr. Raney asked for specific details about where the Seabeach Amaranth exists on the beach.

Ms. Pinnix informed the committee that it exists in the area from the toe of the dune to the high tide line. It is an annual plant that is not extremely salt tolerant so can be threatened due to rising sea levels and high tide events. It is a species that helps to accumulate sand and naturally rebuild dunes. For more information about seabeach amaranth, check out the [website](#).

Mr. Johnson asked about the status of the predator trapping efforts.

Ms. Pinnix informed the committee that predator management takes place typically in the spring months, as close as we can time it to the shorebird nesting season. Currently, the primary predator on the island are coyotes.

Terrapin Tally Results

- The Terrapin Tally community science project completed its tenth year of data collection in spring 2024. This Reserve/NC Wildlife Resources Commission collaborative project aims at collecting diamondback terrapin sighting data in the state to better understand population trends and identify management efforts. Collectively, there were 8 days with a total of 99 data collection sessions paddled over the span of 10 sites ranging from Sunset Beach to Cape

Lookout. This resulted in over 300 diamondback terrapin sightings recorded with 120 terrapins sighted at Masonboro during the event.

- For more information and to participate, please visit our [website](#).

Fourth of July

- The reserve contracted and worked closely with the New Hanover County Sheriff's Department again this year to provide support over the holiday. There were no issues or arrests documented on the island and law enforcement remained staged at the Wrightsville Beach Coast Guard Station in case they were needed to deploy. Reports from Masonboro.org suggested very little trash was collected by volunteers on site on the fourth.

Education & Outreach

- The Wilmington reserve staff have provided multiple education and outreach activities including guest lecturing for the Osher Lifelong Learning Institute and Natural Resource Policy course at UNCW, multiple classroom visits to a local elementary school for water quality and species monitoring hands on learning, multiple researcher & college groups field trips to the island, and an onsite banding demonstration hosted by the Cape Fear Bird Observatory that provided the public an opportunity to view a painted bunting demonstration and learn about ongoing research.

Ms. Addison asked if there have been management efforts for beach vitex?

Ms. Pinnix said the reserve has documented all occurring plants along the island proper and have been in communication with Dr. Long to explore different treatment options through a research project with one of his students. We will keep Ms. Addison in the loop for treatment options.

Guest Speaker

Evangelyn Buckland, Co-founder & Managing Director of [Cape Fear Bird Observatory](#)

- Evan has worked closely with the Reserve for several years in different capacities including a research permit holder, educator, and volunteer. Her presentation highlights the work being done by CFBO to understand painted bunting populations and their movements. Her slides are available as Appendix C.

Ongoing projects

Infrastructure updates - Storm resilient research platforms

- The project to update long-term research infrastructure at Masonboro and Zeke's Island Reserve has been awarded to Carteret Marine Services and work is slated to begin in the next few months into the first of 2025. The structures will be replacing the existing infrastructure at two locations per site.

Masonboro Resilience plan

- Staff have been working on the framework for the Masonboro Island habitat resilience plan, the second of the four national plans we will be completing in the reserve. The next step for this plan is to gather input from topical experts and reserve users to incorporate into the plan. This information will be gathered at a resilience planning workshop in early 2025. Updates and opportunities for input will be available as the process evolves. To learn more and review the process of the plan, please visit our [website](#).

Mr. Carr asked what the ultimate goal of the resilience plan is.

Ms. Gillikin responded that this process has already been completed at the Rachel Carson Reserve and the goal is to document current conditions, assess current and future vulnerabilities of the site and look to where conditions may change in the future. Through the process, we will decide if intervention is necessary or feasible for various areas under threat to drastic changes in environmental conditions. We have broken up the island into different sections to take a closer look at the threats that these areas face

and assess the options for management of the habitats based on stressors and available resources, funding, and research. This process is to focus on the habitats and not on the impact of visitation and site access.

NC Coastal Federation ghost pot clean-up & marine debris removal

- During the closed commercial crabbing season March 1-15, reserve staff, the Division of Marine Fisheries (DMF), Marine Patrol, and the NC Coastal Federation (NCCF) set out to recover and dispose of abandoned and derelict fishing gear in our region. Fifteen abandoned crab pots were removed from Masonboro Island waters by reserve staff and over 230 pots total were collected by crews in DMF District 3 (Cape Carteret to South Carolina line), according to Ted Wilgis with NCCF.
- During the marine debris clean up efforts conducted by the NCCF, they reported removing 4.31 tons/8,620 lbs of debris and recycled/reused 460 lbs of lumber and materials, which included a large ocean buoy, pieces of a sailboat, pilings, and floating docks.
- We plan to continue this partnership in 2025.

Roundtable

Ms. Pinnix made the committee aware that Trails End Park, a county owned and managed park, will be under construction for dock rebuilding and according to their website, is slated to be completed in spring 2025.

Public comments

Mr. Kilbourne inquired about the shorebird posting areas on the northern portion of the island along Masonboro Channel and the Masonboro Inlet. He stated he had not noticed these areas posted in previous years and wanted to know how we make the decision on where to post for shorebird nesting. Ms. Pinnix responded that these areas have been posted in previous years, and we post based on bird behavior and nesting activity. We are mindful of visitor access to the island and ensure there is ample beach access for boat landing, while still creating enough buffer area for the nesting birds that are territorial and sensitive to human disturbance.

Ms. Addison added that this area has become relatively popular for nesting birds, perhaps due to the fact there is lower predator presence on the northern portion of the island. The birds have a higher chance of reproductive success with lower predator presence.

Action Items

Please download and submit plant and animal sightings via [iNaturalist](#) to help document natural occurrences on reserve sites. These observations are submitted annually to a public database at the NC Natural and Cultural Resources.

- Join the [Masonboro site occurrences project](#)!

To report a bird with band markers on their legs, please submit them to this [website](#).