

Reserve in Review: 2014 Accomplishments



Coastal Training Program:



Real estate professionals in New Hanover County attend a workshop offered through the Reserve's Coastal Training Program.

- Eleven Coastal Training Program workshops trained 433 coastal professionals on topics including wetlands regulations, the Clean Marina Program, barrier island development issues, oyster restoration research, how to facilitate meetings, and using technology in the field for natural resource protection.
- The Coastal Training Program was featured in the July/August/September 2014 issue of Coastal Services Magazine: [Giving North Carolina Realtors Credit for Educating Coastal Property Owners](#)

Education Program:

- Field trips for 723 K-College students to the Rachel Carson Reserve provided a firsthand connection to estuarine environments. The field trips focused on concepts such as coastal habitats, food webs, plant and animal identification, and island morphology. Classroom activities were also provided for 142 K-College students. Additionally, 278 students participated in the Masonboro Island Explorers Program, which offers educational, science-based field trips to fifth graders through our partnership with Masonboro.org.
- The Reserve trained 109 educators through professional presentations and workshops. Teachers learned classroom and field techniques for describing estuary functions, conveying the importance of estuaries, and illustrating how humans can impact estuary health.
- [Summer public field trips](#) fostered connections to the natural history and ecology of the Rachel Carson Reserve for 167 North Carolina residents and visitors. These trips also provided a unique interpretative opportunity for the dedicated volunteers who guided the excursions.
- 1,737 N.C. residents and visitors participated in events at our southern sites. Events included educational hikes highlighting native flora and fauna within Reserve habitats, a fall lecture series at the UNCW Center for Marine Science, and educational paddling trips to the Masonboro Island Reserve.



Education Specialist Marie Davis plays marsh creature identification games with students in the Masonboro Island Explorers Program.

Research Program:



Research Coordinator Brandon Puckett collects water quality data in Middle Marsh

- Over 210,000 water quality, meteorological and nutrient measurements were collected as part of the Reserve's System-Wide Monitoring Program. Data are available through the [Centralized Data Management Office's website](#).
- Data were also collected in Reserve marshes on vegetation, sediment elevation, and groundwater to assess change and begin to understand how marshes will respond to sea level rise.
- The Reserve partnered with N.C. Sea Grant to offer the North Carolina Coastal Research Fellowship, which funded two graduate students from North Carolina Universities to conduct research within Reserve sites.
- Fifteen new external research projects were facilitated by the Reserve. These projects were conducted at all 10 Reserve sites by scientists from seven universities, a non-governmental organization, and the Canadian government.

Stewardship Program:

- A dedicated volunteer corps of 238 community members contributed 2,850 hours equating to nearly \$60,000 in volunteer service across our 10 sites. Volunteers assisted with monitoring efforts for sea turtles, visitor use, wild horses, and protected bird species, as well as led public field trips, participated in marine debris removals, and maintained Reserve property. (Volunteer rates per hour from Independent Sector)
- A new volunteer program, the Terrapin Tally, utilized trained volunteers as citizen scientists to survey the creeks and bays of the Masonboro Island Reserve for diamondback terrapins. This N.C. species of special concern lives exclusively in estuarine marshes and waters, making it challenging and time consuming to locate. More data on its population and condition are needed to inform management efforts in the State. This program demonstrates one possible solution to collecting population data using cost-effective means.
- Stewardship staff continued efforts to monitor and protect shorebirds and to support a variety of larger efforts related to the science of bird conservation. Efforts in 2014 included monitoring [American oystercatcher nesting](#) at Masonboro Island Reserve, opportunistic bird band reporting, and participation in the International Shorebird Survey, the [SEANET](#) beached bird survey program, and the Christmas bird count at Rachel Carson Reserve.



American oystercatcher chick at Masonboro Island Reserve