

Reserve Holds Workshop for N.C. Educators

Each year the National Estuarine Research Reserve System (NERRS) offers a variety of teacher trainings across the country. The most commonly offered is the Teachers on the Estuary (TOTE) program, a research and field-based teacher training initiative of the NERRS. The goal of TOTE is to improve teachers' and students' understanding of the environment using local examples and to provide resources and experience to support the incorporation of estuary and watershed topics into classroom teaching.



Teachers assess habitat using a quadrat

Reserve Education Coordinator Lori Davis and Education Specialist Marie Davis recently hosted twelve teachers from across North Carolina who traveled to the coast to participate in the TOTE program in Beaufort, N.C. No time was wasted over the course of the two-day workshop, which included activities both in and out of the classroom and presentations from representatives in the Reserve's four programs; education, training, research, and stewardship.

On day one, education staff led the group over to the Rachel Carson Reserve, RCR, where they assessed estuarine habitats using a quadrat, which is a tool used to measure percent cover or distribution of certain species in a particular area. The second half of the day was spent in the classroom, but was no less exciting as teachers learned how to implement the [Reserve](#) and [Estuaries 101](#) curricula, both of which have components that align with N.C. Essential Standards, which are courses of study implemented state-wide that are designed to help teachers pattern their instruction and classroom assessments that measure the level of knowledge each student must obtain before to moving up to the next grade level.

Day two was a collaborative affair. Interactive activities were conducted with research, training, and stewardship staff. TOTE participants managed to collect, log, and remove 110 pounds of marine debris with guidance from RCR's Site Manager, Paula Gillikin. Coastal Training Program Coordinator, Whitney Jenkins, played a watershed game with the educators that focused on best management practices for managing stormwater runoff. The game was a huge hit and every teacher requested a copy to take back to their classroom. The day ended with Research Coordinator, Brandon Puckett, taking the group out for a cruise around the island while informing them about the NERRS System-Wide Monitoring Program that was developed to address a suite of coastal management issues as they relate to estuaries and watersheds. As part of the SWMP protocol, research staff have been collecting long-term water quality and vegetation data in North Carolina. Puckett discussed ways of using this readily available [real time data](#) in the classroom.

At the conclusion of the workshop, the TOTE participants were asked to fill out an evaluation and provide their opinions about the success of the workshop. Based on responses to the survey and interactions between staff and teachers throughout the workshop, Reserve staff are confident that this group of educators left inspired and more prepared to teach their students about estuaries. Enjoy a few comments from TOTE participants below.



TOTE participants and the 110 pounds of marine debris they collected at Rachel Carson Reserve

What did you like best about the workshop?

"I enjoyed all of the hands-on activities designed to address several learning styles, grade levels, and N.C. standards."

"The Hands-on, outdoor activities were great. Everything was very relevant."

"Being provided with resources and actually experiencing the activities and seeing/investigating the estuary."

"I enjoyed learning in the actual field and then coming back and doing lessons that apply."

What changes would you make to this workshop?

"Not much...make it longer! Maybe run a specific high level workshop."

"Timing was perfect, snacks were yummy, resources were plentiful and enthusiasm was contagious. Not one thing!"

"Maybe 3 or 4 days long instead of 2."