

## **A Model for Stewardship: Engaging the K - Gray Audiences in Salt Marsh Community Science**

South Carolina is home to some 350,000 acres of salt marsh ecosystem. The salt marsh is ranked as one of the most biologically productive ecosystems on earth and provides many ecosystem services including flood control, nursery grounds for commercially and recreationally important fish and shellfish species, and filters pollution from the water. The salt marsh is currently threatened by sea level rise, development pressure, and pollution from stormwater runoff. The salt marsh is integral to the way of life in coastal South Carolina; therefore, involving and educating communities on stewardship and management of this habitat is crucial to its future protection. In 2011, South Carolina Sea Grant Consortium, in partnership with the South Carolina Department of Natural Resources and Clemson Extension, lead the development of "From Seeds to Shoreline<sup>®</sup>," a youth wetland restoration initiative in which K - 12 students actively cultivate and transplant *Spartina alterniflora*, the dominant plant in southeastern salt marshes. Since that time, more than 7,500 students and teachers have participated in the program. In 2019, the program expanded to incorporate adult community volunteers and a citizen science component. In 2020, the South Carolina General Assembly approved a regulatory process for living shoreline installation, with a new industry on the horizon, a training need was identified. Over the course of a decade, educational resources were developed to help residents better understand the salt marsh and how to manage and steward this resource for current and future generations.



### **Kimberly C. Morganello**

Kim Morganello is a Water Resource Associate for Clemson Extension, based in Charleston, South Carolina. Kim focuses her work on community resiliency and adaptation as it relates to water quantity and quality concerns. Kim has developed tools, resources and programming to broaden the application of landscape-level best management practices, in particular rain gardens, wetland restoration, vegetative buffers, rainwater harvesting, living shorelines, stormwater pond retrofits and native plant landscaping. Kim Coordinates Clemson Extension's Carolina Clear program, providing support to the six regional stormwater consortiums in the state and the nearly 40 participating local governments. Kim also serves as the Assistant Program Team Leader for Extension's Water Resources Team and enjoys collaborative development of innovative Extension pedagogy and strategic planning to better steward water resources for current and future generations.

### **E.V. Bell**

E.V. connects coastal and ocean scientific research with formal and nonformal educators and communities in an effort to increase scientific literacy, workforce development, and natural resource stewardship. Through educator professional development opportunities, student-focused environmental stewardship projects, and education product development, she addresses topics such as coastal ecosystems, marine technology and engineering, watersheds and water quality, climate change, marine debris, and careers.

E.V. has a B.S. from Clemson University in biological sciences and a M.E.S. from the College of Charleston. Previously, she was a marine educator at Newfound Harbor Marine Institute in the Florida

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