

ICOAST: DEPLOYING ADVANCED WATER SENSOR TECHNOLOGY TO MONITOR WATER QUALITY

Taryn M. Chaya, and Todd Z. Osborne

University of Florida, The Whitney Laboratory for Marine Biosciences, St. Augustine, FL, USA

Predicting coastal threats, such as algal blooms, storm surge, and saltwater intrusion is vital for protecting coastal communities and ecosystems. The iCoast program, an interdisciplinary effort among scientists and engineers at the University of Florida, was designed to monitor these coastal threats in real-time. At the University of Florida's Whitney Laboratory for Marine Bioscience, in St. Augustine, FL, multiparameter YSI EXO2 water sensors collect water quality data as an integral component of the iCoast program. Temperature, salinity, dissolved oxygen, turbidity, depth, fluorescent dissolved organic matter, and pH measurements were collected at three sites in St. Augustine, FL, every 15 minutes during the preliminary study. Two test sites were located along the Matanzas River, a saltwater estuary fed by the St. Augustine and the Matanzas Inlets. The third site, in Pellicer Creek, is further inland in a predominantly freshwater region. Ongoing data collection and collaboration with other researchers in the iCoast program is projected to preemptively combat the coastal problems resulting from climate change and other anthropogenic impacts.

PRESENTER BIO: Taryn Chaya is pursuing a M.Sc. degree in Soil and Water Science with a focus in wetland biogeochemistry.