

**NEWS RELEASE**  
**14 October 2009**

**CSA Partners with SeaRobotics to Conduct  
Shallow Water Bathymetric Survey of the St. Lucie Estuary**

CSA International, Inc. (CSA), a leader in Marine Environmental Sciences and Services, has partnered with SeaRobotics Corporation to assist in the conduct of the shallow water bathymetric survey of the St. Lucie Estuary for the Martin County Oyster Reef Restoration project.

The Oyster Reef Restoration team, led by CSA, employed a state-of-the-art marine remote sensing system, called an Unmanned Surface Vehicle (USV), to collect 3D underwater depth information. Working closely with Florida-based SeaRobotics, which designs and builds these small, smart, USVs that are remotely or autonomously operated, CSA was able to utilize this advanced technology to produce survey data in shallow and hard to reach locations. Bathymetric data for the shallowest restoration sites, approximately 180,400 m<sup>2</sup>, was compiled in about 3 hours using the SeaRobotics USV.



“Without this specialized technology, access to these areas would be limited to snorkeling or wading, taking longer to conduct the survey and yielding less information,” said Ben Harkanson, Project Scientist at CSA.

The information obtained during the bathymetric survey will aid in the identification of existing oyster beds in shallow locations and the determination of ideal placement for oyster bars that will be built nearshore. These oyster bars will protect the oyster shell and plantings being placed along the shoreline as well as help reduce erosion. Armed with this information, the Oyster Reef Restoration project will continue the project that entails the placement of approximately 30 million pounds of cultch (fossilized shells, limestone rock, and recycled concrete rubble) within the St. Lucie Estuary and the Northwest Fork of the Loxahatchee River to provide critically needed habitat so that oysters can repopulate the estuaries.

For more information about the Oyster Reef Restoration project, visit [www.oysterrestoration.com](http://www.oysterrestoration.com).

*CSA International, Inc. specializes in consulting services for Federal, State, and private industry clients in multidisciplinary projects, integrating science and technology to evaluate environmental activities throughout the world. CSA offers a wide variety of services related to environmental management and community planning to support clients working in marine, estuarine, wetland, freshwater, and terrestrial habitats throughout the United States and overseas.*

Visit [www.csaintl.com](http://www.csaintl.com) for more information.

**CSA International, Inc.**  
8502 SW Kansas Ave.  
Stuart, Florida 34997  
Phone: (772) 219-3000  
Fax: (772) 219-3010