Upcoming Events

Tuesday August 22
FAU Fall Semester Classes Begin

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July, 2017

FAU Harbor Branch Deploys New Benthic Lander on Oculina Coral Reefs

FAU Harbor Branch researchers have successfully deployed and retrieved a new benthic lander (pictured) on Oculina coral reefs, 20 miles offshore of Ft. Pierce. This project is led by Associate Research Professor Mingshun Jiang with funding support from the Harbor Branch Oceanographic Institute Foundation (HBOIF). The novel lander platform was designed and deployed by the FAU Engineering and Technology Core (Erick Busold and Gabriel Alsenas) and built at Harbor Branch.

The initiative aims to develop and deploy several small, low-cost benthic landers for monitoring deep water environments. The landers can be outfitted with oceanographic sensors for measuring parameters important to benthic habitats like mesophotic and deep coral reefs. Parameters include temperature, currents, turbulent mixing, food availability, and pH.

During its maiden deployment from mid-May to early July, the lander package included an acoustic release to remotely recover the system, an ADCP, and a SAMI pCO2 sensor. The deployment site was at the edge of the Florida continental shelf, ~240 feet deep and 100 feet north of the Jeff Reef within the NOAA-designated Oculina Habitat Areas of Particular Concern (HAPC). All sensors functioned well and a preliminary analysis of the data indicates a strong variability of

currents, temperature, and pCO2 concentration at the deployment site that are driven by the powerful Gulf Stream, meso-scale eddies, and internal tides. For example, bottom temperature could decrease from 20oC (68oF) to 12oC (54oF) in three to four days, typically following a reversal of currents from going northward (typical) to southward. The team is planning a long-term (~1 year) deployment with additional sensors (e.g. pH and dissolved oxygen) at a deeper coral reef site in the Florida Straits during 2017.

Reed Co-Authors Paper on 4-Year Study of Pulley Ridge Fish Community

FAU Harbor Branch Research Professor John Reed is co-author on a paper that was recently published in the NOAA National Marine Fisheries Service's Fishery Bulletin regarding a study on fish populations and the presence of lionfish in Pulley Ridge, a mesophotic coral reef in the Gulf of Mexico.

The Cooperative Institute for Ocean Exploration, Research and Technology, located at FAU Harbor Branch, documented some of the first lionfish in the Gulf during surveys following the oil spill of 2010. During surveys of Pulley Ridge from 2012- 2015, thousands of lionfish were discovered living within the burrows of red grouper.

Surveys conducted with remotely operated vehicles were used to examine whether invasive species of lionfish have had an effect on the fish community.

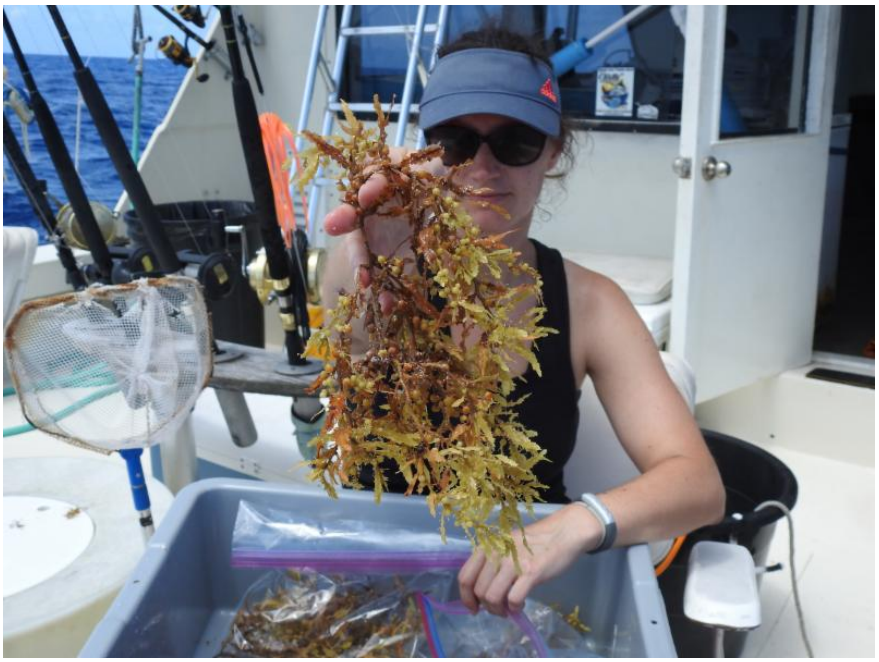
The results indicate that grouper pits are a favorable habitat for both lionfish and native fish species but that the presence of lionfish is too recent to have caused changes to fish community structure. This is likely to change as the lionfish eat the juvenile grouper and smaller reef fish which could have catastrophic results to the fish community in the future.

Read the full paper here.

NPR Reports: Septic Tanks and the Indian River Lagoon

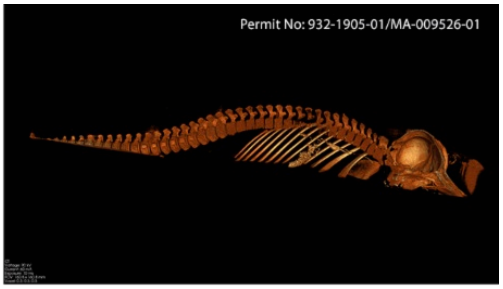
FAU Harbor Branch Research Professor Brian Lapointe was featured in a recent NPR report concerning the Indian River Lagoon, titled "Florida Swaps Out Septic Tanks For Sewers To Fight Coastal Pollution." Listen to the full report here.

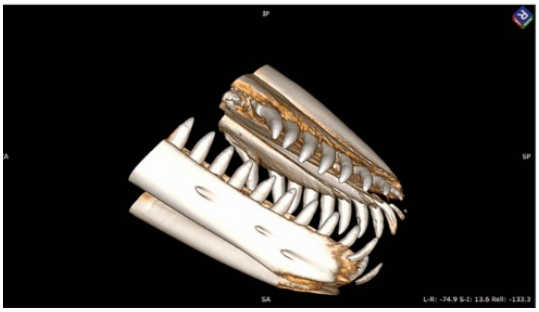
LaPointe and Wilking Participate in NASA-sponsored Research Cruise

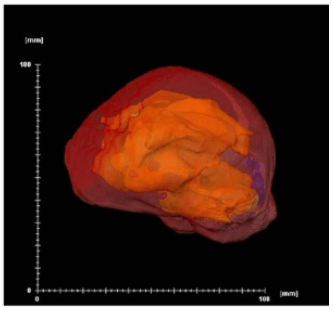


FAU Harbor Branch Research Professor Dr. Brian LaPointe and Lab Chemistry Coordinator Lynn Wilking recently participated in a NASA-sponsored research cruise offshore Big Pine Key, along with collaborators from Dr. Chuanmin Hu's lab at the University of South Florida. The group sampled Sargassum (brown algae) at "The Wall" some 30 miles offshore,
where Sargassum weed lines were present. Sargassum tissue was sampled for nutrient and isotope contents, and optical measurements were also made of Sargassum and adjacent blue water for ongoing remote sensing research.

Novel Imaging in the Necropsy Lab







Investigator Adam Schaefer, M.P.H., tells more about the use of novel imaging including CT Scans and MRI Imaging and how the scans help determine cause of death in stranded whales, dolphins and other marine mammals. Read the whole post here.

Marine Mammal Rescue Recap

The FAU Harbor Branch Marine Mammal rescue team was busy in recent weeks, assisting with an out-of-state multi-agency intervention effort and two strandings.

The team helped to disentangle a dolphin from monofilament line in Brunswick, Georgia. FAU Harbor Branch joined several organizations in the collaborative effort, including: the National Oceanic and Atmospheric Administration (NOAA), Georgia Aquarium, SeaWorld, Georgia Department of Natural Resources - Georgia DNR, National Marine Fisheries Service, Georgia Sea Turtle Center, Hubbs-SeaWorld Research Institute, and the Chicago Zoological Society. Out-of-state rescues like this are made possible through marine mammal conservation donations.

Earlier in the week, the team worked with Florida Fish and Wildlife Conservation (FWC) and volunteers to rescue an injured manatee in Vero Beach. FWC transported the manatee to SeaWorld Orlando for rehabilitation.

The team also responded to a stranded pygmy sperm whale in their southern response area over the weekend. FWC and local police assisted. The whale was transported to FAU Harbor Branch for necropsy, and samples from the animal will be used to further marine mammal research.