



EXPEDITION PROFILE

August 20th, 2020 aboard DISCOVERY Vessel Phantom

The International SeaKeepers Society assisted Florida International University in conducting field research in the waters of Biscayne Bay, FL aboard DISCOVERY Vessel Phantom. Louis Aguirre and his camera crew were there to document and film footage for a special report highlighting the dire situation in Biscayne Bay. As FIU needed all hands on deck on multiple vessels, SeaKeepers' D/V Phantom was needed to act as the platform from which the news crew filmed and documented FIU's work. FIU's scientists used an ASV or Autonomous Surface Vehicle to take readings such as temperature, salinity, turbidity, nutrients, chlorophyll and dissolved oxygen using a special probe at the surface. Another vessel used the same type of probe but at deeper points in the water column. Interestingly, levels at the surface were better than at depths of about a meter or so down.

This was all in response to the fish kill and algal blooms that have been plaguing Biscayne Bay. While many locations throughout the Bay have reported sightings of dead fish washing ashore, the FIU team has seen that the main locations that needed further study were at the mouths of Biscayne Canal and Little River. The fish kill is the unfortunate result of years of poor infrastructure and perhaps even climate change. Storm drains that simply dump rain water from the city into the bay with no filter or treatment, sewage systems, and the over use of fertilizers all combine to create an overly nutrient rich environment where algae not only thrives, but also becomes way too abundant. This in turn creates an environment with almost no dissolved oxygen in the water, suffocating all the marine life. Warmer-than-normal water temperatures exacerbate this problem, until there is an almost totally dead ecosystem. This is something that scientists have been warning about for years, and we are finally seeing the result of what happens when warnings are not heeded. All we can do now is hope nature bounces back, but first, we need to take action to correct the problems listed above, or at the very least begin to mitigate them, or else we may have destroyed one of the most important ecosystems in South Florida forever.

Program Director:

Tony Gilbert

Tony@seakeepers.org

255 Aragon Ave. Third Floor

Coral Gables, Florida

Tel: 305.448.7089

BOARD OF DIRECTORS

Jay Wade – *Chairman*

Glen Allen; Julian Chang; Mark Luther

Michael T. Moore – *Chairman Emeritus*