



EXPEDITION PROFILE

August 14th, 2020 aboard DISCOVERY Vessel Bay Ripper

The International SeaKeepers Society assisted Miami Water Keeper in conducting field research just in the waters of Biscayne Bay, FL aboard DISCOVERY Vessel Bay Ripper. Water Quality Research Manager Elizabeth Kelly collected water samples to analyze levels of bacteria. She also collected data such as temperature, salinity, nutrients, chlorophyll and dissolved oxygen. This is 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, we took readings using a special probe in several locations including Pelican Island, Little River, Morningside Park, the waters just off of Edgewater, and finally, Albert Pallot Park. This information has become vital in further efforts to research this dire situation.

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.

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