



EXPEDITION PROFILE

November 14th-15th, 2020 aboard DISCOVERY Vessel M-Powered

The International SeaKeepers Society assisted the Rosenstiel School of Marine and Atmospheric Sciences Shark Research and Conservation lab (SRC) in conducting field research in the waters of Biscayne Bay, FL aboard DISCOVERY Vessel M-Powered, a 24' Sailfish center console. SRC members, Gaitlyn Malone, Abby Tinari, and Samantha Orndorff conducted a series of BRUV deployments in three sites just north of the Rickenbacker Causeway on the night of November 14th, and again near Elliott Key on the night of November 15th. BRUV stands for Baited Remote Underwater Video. This project investigates the impact that increased urbanization and associated human activity has on fish feeding behavior. Coastal marine habitats in close proximity to increased human populations are subject to alterations in habitat quality and species composition which can cause changes to occur throughout the ecosystem at various trophic levels. To study these changes, we deployed baited remote underwater video stations (BRUVs) throughout Biscayne Bay to examine how fish feeding behavior changes with distance from the city of Miami.

In addition to the BRUV deployments, we were able to include shark tagging on these outings as well. Abby Tinari's research goals include analyzing the melatonin levels in sharks at night. The light pollution from Miami's city lights may have an impact on this important hormone; therefore, these night outings presented the perfect opportunity to further this field research as well.

As populations within coastal cities continue to increase, changes to marine habitats in close proximity will inevitably occur. To gain a more thorough understanding of the influence of urbanization, it is crucial to study the potential effects occurring at every trophic level. By investigating the impacts to fish feeding behavior, we gain a component of knowledge that increases our total understanding and may introduce other potential implications not previously considered.

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