



EXPEDITION PROFILE

January 23rd, 2021 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, Abby Tinari, Victor Bach, Alex Anstett, and Sander Elliott deployed a series of drum lines for the purpose of shark tagging and taking other physiological data from the hours of 8:00 pm to 1:00 am in an area of Biscayne Bay called Norris Cut; a channel just south of Fisher Island. In total, five sharks were caught (three black tip sharks, a lemon shark, and a nurse shark) providing data for three different species in the area. 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.

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 present 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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