Project Update: March 2016

January 6th - 9th:

Abaco Science Alliance Conference - I presented this research at the community based science conference in Marsh Harbour, Abaco, The Bahamas. Around 50 local high school students were present, community members, local press as well as other scientists from around the world whose research is based in The Bahamas. I also received press coverage from my 15-minute presentation.

February 1st - 7th:

I led a team to **Hummingbird Cay** in the southern Exumas to begin our initial sampling drive. We ended up with 15 animals for the trip including finding an aggregation of 17 individuals never seen before in The Bahamas. The animals caught and sampled from this trip were across multiple sites spanning over 30 miles, increasing the resolution of our data.

February 8th:

February 8th saw me take on 6 students from the LN Coakley High School in Moss Town, **Great Exuma**. These young, budding marine biologists accompanied us to Stocking Island where we caught three stingrays and allowed the students to conduct the entire sampling process under our supervision.

February 9th:

The success of the outreach initiative spread very quickly, and I was invited back to **Stocking Island** today, to give a presentation to the locals as well as around 150 yacht owners that were moored in Elizabeth Harbour. I spoke for around 60 minutes on stingrays in general and specifically this project, and how we aimed to elucidate migratory pathways and dispersal corridors of this species.

March 2nd:

Today was the start of our northern **Exuma Cays** sampling effort, whereby we ran 55 km over Exuma Sound to Shroud, Norman's and Highborne Cay to sample the whiptail rays. We ended up catching six of varying sizes across a distance of 15 miles, again, increasing the spatial resolution of our harvested tissue. We also caught the largest ray of the project so far that measured 147.2 cm disc width.

July 2016:

I have submitted an abstract to the **American Elasmobranch Society** conference in New Orleans, to discuss this research.

Summary:

My initial objective was to sample at least 40 individuals from four locations and so far I have collected DNA from 42 individuals across three locations. I have also modified my sampling design to exclude the south-eastern quadrant (Cat Island, Run and Conception Cay). The reason for this is that I have been catching rays successfully across The Exuma Cays, and have noticed that in the southern Exuma Cays, only mature, mixed sex rays were caught; in the northern Cays, medium sized sub-adults were sampled, and in Eleuthera, only juveniles. This

has allowed me to diversify my questions and increase my effort in expanding my sampling size from these Cays.



An immature female whiptail ray is measured for morphometric data



Dr Owen O'Shea holding one of the smaller rays during an 'in-water' workup