

Investigation of Dolphin-Fisher Interactions and the Impact of Dolphins on Fishing in Jamaica

Christine O'Sullivan¹ and Ricardo Antunes²

¹University of Technology, Jamaica; ²Wildlife Conservation Society

Depredation from artisanal Antillean fish traps by dolphins has been reported by fishers in Jamaica since at least 2000 with only one study, largely based on questionnaires, conducted to examine the issue. In an attempt to document depredation by dolphins two field seasons were conducted in Jamaica with data collection in Montego Bay, St. James and Bluefields, Westmoreland in May 2015 and Bluefields, Westmoreland in December 2015. During the field seasons high definition video cameras were deployed daily adjacent to fish traps to record any potential depredation. Video was recorded at 30 frames per second, with either 1920x720 or 1920x1080 pixel resolution on a 128 Gb card for a period of 24 hours. In addition to the deployment of the video cameras, photo-identification surveys were conducted for the establishment of Jamaica's first dolphin photo-identification catalogue.

During the first field season no depredation events were recorded in Montego Bay though nine separate depredation events by bottlenose dolphins (*Tursiops truncatus*) were recorded in Bluefields. An additional two depredation events were recorded during the second field season. The depredation events showed single dolphins either turning fish traps into an upright position and extracting and eating the fish caught or attempting to extract fish from traps that had already been turned. The photo-identification surveys allowed for the addition of 4 dolphins to Jamaica's photo-identification catalogue. The results from that field season were presented, as a poster, at the Network of Aquatic Marine Mammal Specialists of Central America and the Caribbean's workshop at the 21st Biennial Marine Mammal Conference in San Francisco, California. We are grateful for the funding provided by the Society for Marine Mammalogy's Grants in Aid of Research, which was used to assist with the field work conducted during the first field season.