

Lord Howe Island Marine Park News

Galapagos Shark Research Findings

The Lord Howe Island shark research team completed another fieldtrip in November, 2024. The team is led by Dr. Jon Mitchell and Dr. Vic Camilieri-Asch (from The University of Western Australia and Shark Ethology Australia) and on their recent visit they were joined by Prof. Charlie Huvneers (Flinders University) and Ms. Theda Hinrichs (Queensland University of Technology).

The recent fieldwork involved working with two local charter fishing operators, Jack Shick and Brad Wilson, to test the effectiveness of two electrical shark deterrent devices for reducing shark interactions while fishing. Such interactions include sharks taking the bait directly (bycatch) or taking hooked fish (depredation). The two devices were tested across nine days of fishing, to compare levels of shark bycatch and depredation when using each device, compared to no device (control treatment).

In total 55 fish were caught on the control treatment (no device) with 6 lost to shark depredation (11%). For comparison, 58 fish were hooked when deterrents were used, with only 2 fish lost to shark depredation (3%). Also, 17 sharks were hooked directly on bait during the control treatment but only 9 when using a deterrent. However, use of the devices also had some practical limitations related to their different designs. The practical feedback received from the fishers was provided to the product manufacturers, to continue improving their useability. Further testing is planned for late 2025.



Galapagos sharks in the Lord Howe Island Marine Park. Photo credit DPIRD.

Additionally, the team serviced the 6 deepwater listening stations in the marine park and downloaded data on the movements of tagged Galapagos sharks. Some of the tagged sharks have been detected by the listening stations around Lord Howe Island for at least 7 years now and often frequent the same areas. The value of this listening station array was further demonstrated by detections of transient marine animals tagged during other studies elsewhere in Australian waters and the Tasman Sea.

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Retrieving a deep-water acoustic listening station in the Lord Howe Island Marine Park. Photo credit DPIRD.

This research is funded by Parks Australia and the Sea World Foundation, with in-kind support from the University of Western Australia (UWA), Sydney Institute of Marine Science (SIMS), NSW Department of Primary Industries and Regional Development (NSW DPIRD) the IMOS Animal Tracking Facility and Flinders University. The researchers thank the continued logistical and technical support and in-kind contributions from the NSW DPIRD Marine Parks staff. As always, the team enjoyed working with the Lord Howe Island community who have supported this research since 2018.

The team recently published a paper investigating how sharks and fishing vessel movements overlap at LHI and is available here:

<https://link.springer.com/article/10.1007/s00227-024-04549-5>

An article about the first phase of the research between 2017 – 2021 is available on the Parks Australia website:

[Galapagos shark interactions with fishing activity in the Lord Howe Marine Park | Australian Marine Parks Science Atlas](#)

A new brochure and poster are also available with further information about Galapagos sharks and the ongoing research. For copies, please contact Lord Howe Island Marine Park office via phone (02 6563 2359), email (lord.howe@dpiird.nsw.gov.au) or visit the office in the main town centre.

