

# Galapagos Sharks

Lord Howe Island  
Marine Parks



# The marine parks

The waters surrounding Lord Howe Island are protected by the Lord Howe Island Marine Park (NSW waters) and Lord Howe Marine Park (Commonwealth waters) that are managed collaboratively by NSW Department of Primary Industries and Regional Development (DPIRD), and Parks Australia.

The marine parks contain a unique mix of sub-tropical and temperate species, including endemic fish and invertebrates, as well as the world's most southerly true coral reef. The marine parks conserve biodiversity and ecosystem function, whilst providing opportunities for a range of uses and activities.

The abundant Galapagos Sharks in the waters surrounding Lord Howe Island are a sign of a healthy ecosystem. They are also known to commonly occur at Elizabeth and Middleton Reefs and Norfolk Island.

They can be encountered safely in-water without the use of bait or attractants, providing social and economic benefits for visitors, residents and local businesses. However, negative interactions and bycatch of sharks also occurs when they eat bait or hooked fish – a behaviour called depredation.

Fishers report that the frequency of depredation by Galapagos Sharks has increased within the last decade. This increase has been linked to possible changes in shark behaviour, whereby they associate boat engine noise with the availability of a food source in the form of bait, hooked fish, released fish, and discarded fish waste.



# The research

A collaborative research program was initiated by marine park managers from DPIRD and Parks Australia to inform potential management responses to the depredation issue.

They teamed up with scientists from the University of Western Australia (UWA) and the Integrated Marine Observation System to better understand the Galapagos Sharks in these waters.

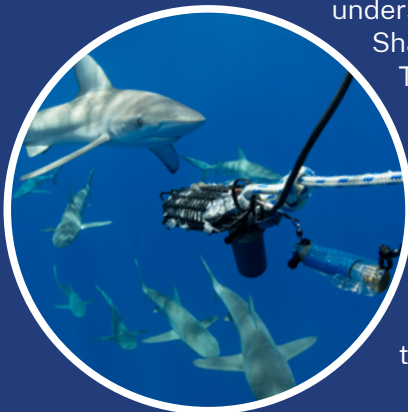
The research program has been ongoing since 2017, with funding from Parks Australia and critical in-kind support provided by DPIRD.

This research aims to identify what

influences shark depredation in these waters, and how it can be reduced. The team have been working with the community to assess the movement patterns, levels of fisher-shark interactions, population size, connectivity, and other factors. They have used a range of methods including acoustic tracking and data from vessel monitoring systems (VMS) used by fishers.

Results show that:

- These sharks mostly remain resident in Lord Howe Island waters.
- The home range of tagged sharks varied from 1–1200 km<sup>2</sup>, with some moving up to 12 km per day.
- Shark home ranges overlapped with fishing areas and fish cleaning sites.
- Shark presence was greatest in spring and summer.
- Their main depth range was 30–100 m.



*Left image: Testing a shark deterrent device.*

# Recommendations for fishers to reduce shark depredation



Rotate fishing areas so you don't visit the same spots too regularly.



Move fishing location regularly (30–60 mins) to reduce chances of sharks finding your boat.



Prepare all gear before arriving at your fishing spot, so you can start fishing straight away.



Target fish shallower than 30 m or deeper than 100 m to avoid the main depth range where Galapagos sharks have been found to be the most interactive with fishing gear.



Use handlines or electric reels to get fish on the deck quicker.



Use lures and jigs instead of bait to reduce odour cues which can attract sharks.



Diversify your target species from kingfish to demersal fish which sharks are less likely to depredate.



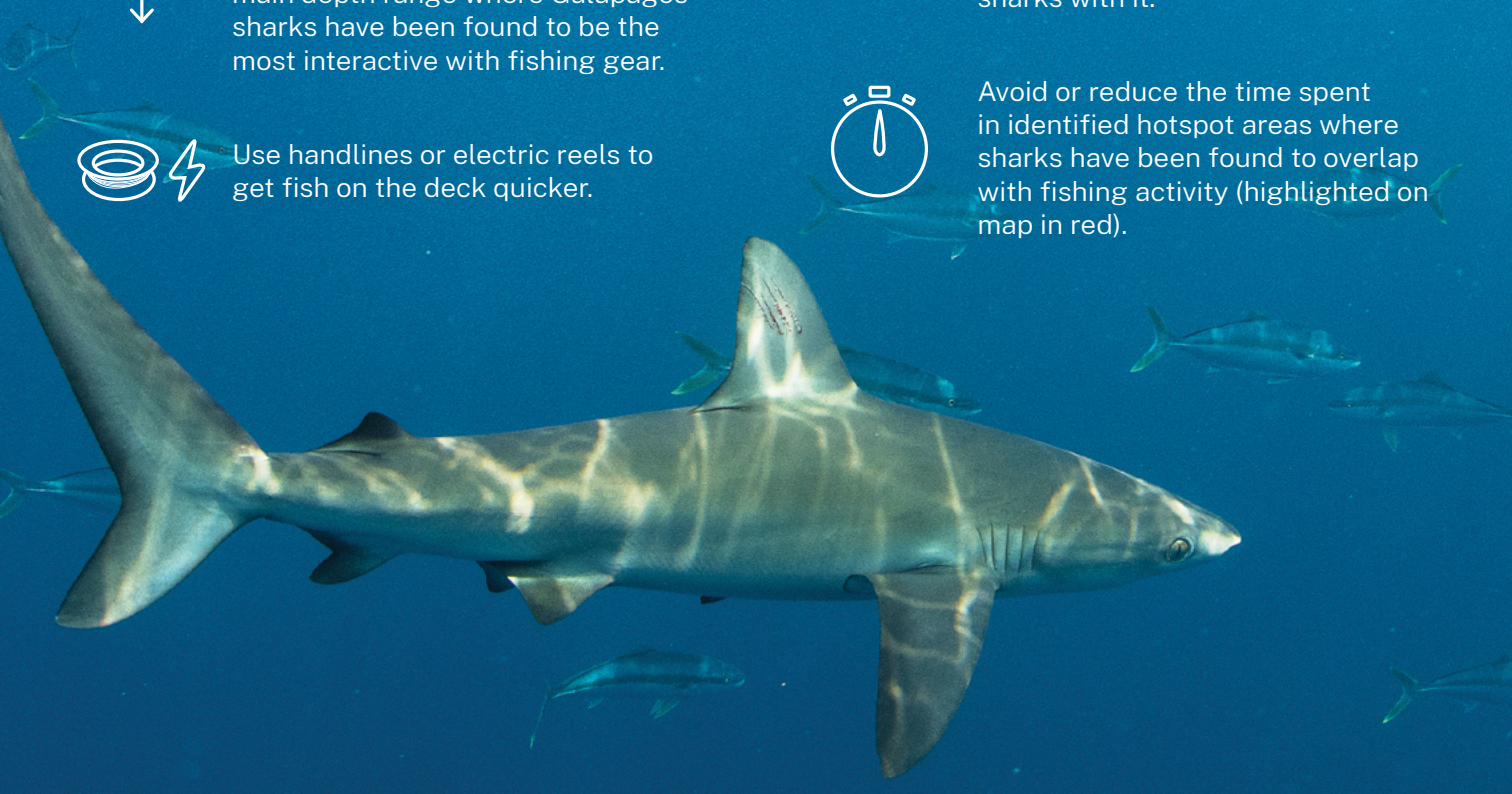
Consider using electromagnetic shark deterrent products designed for reducing shark depredation when fishing.

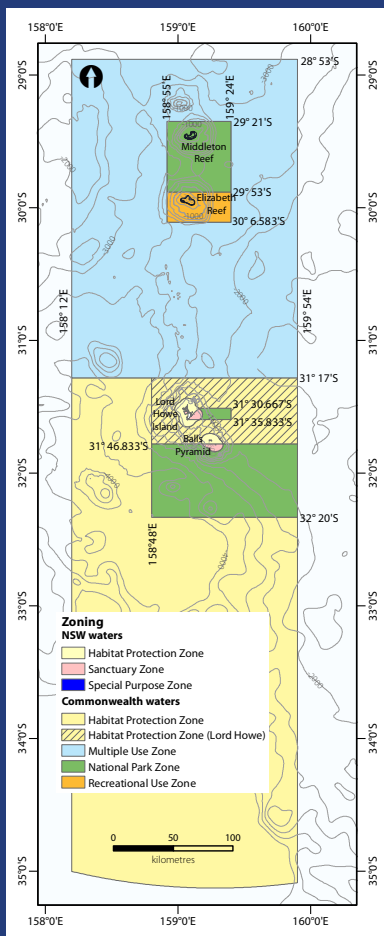


Bring fish waste and excess bait back on land, to dispose of it at the waste management facility for composting, instead of feeding the sharks with it.

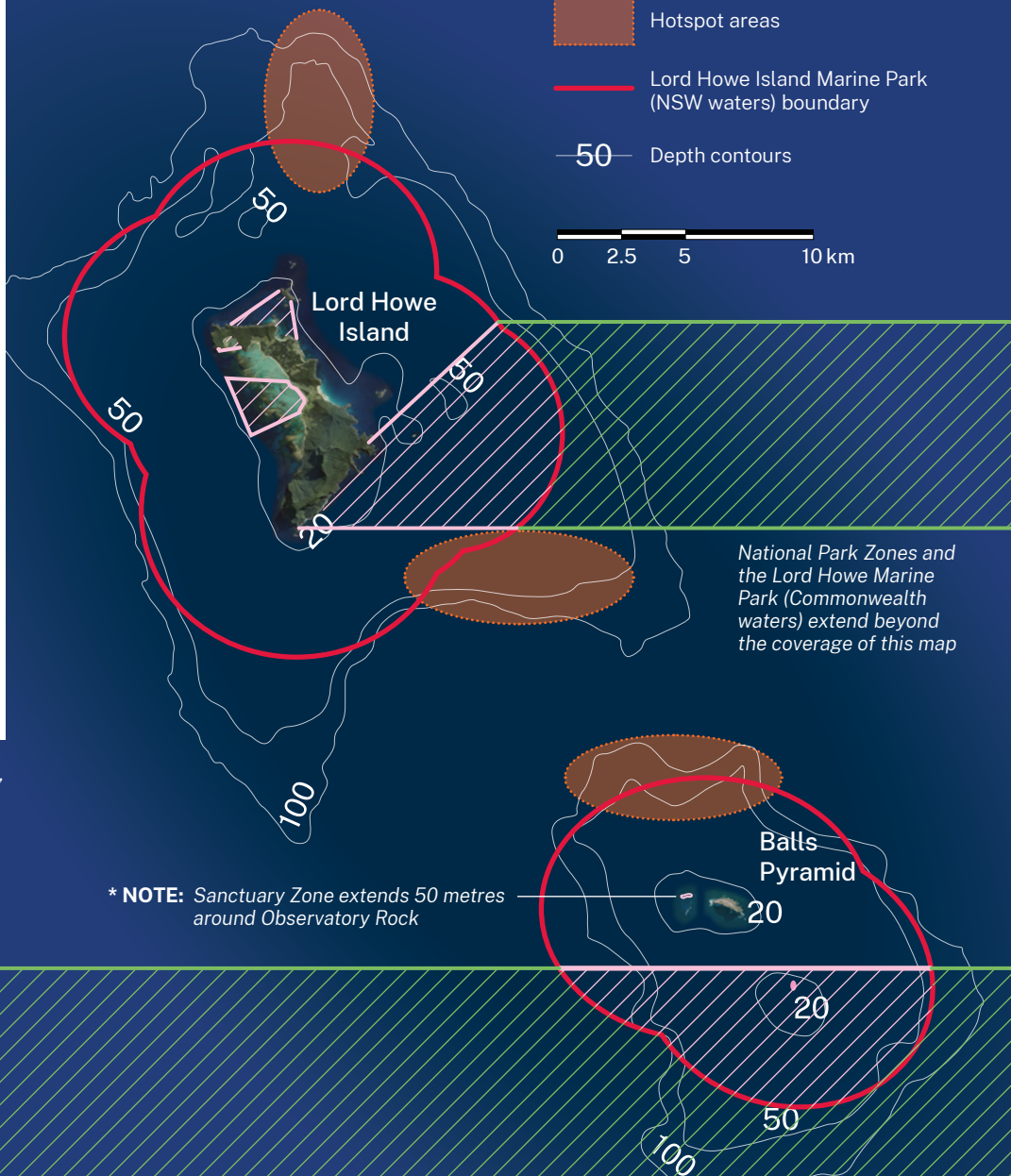
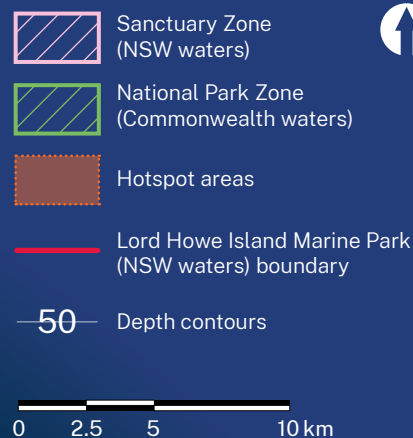


Avoid or reduce the time spent in identified hotspot areas where sharks have been found to overlap with fishing activity (highlighted on map in red).





Hotspot areas indicate overlap between shark presence and fishing activity.



This map must not be used for navigation, please use the Lord Howe Island Marine Park Guide or DPIRD FishSmart app for full extent of marine park zones.



# Meet the sharks

- Galapagos Sharks are also known as 'whaler' sharks.
- They were first discovered and named from the Galapagos Islands.
- Waters surrounding Lord Howe Island and Elizabeth and Middleton Reefs are important nursery areas for the species.
- Their abundant population in these marine parks are a sign of a healthy marine ecosystem.
- They are curious and beautiful, offering exciting diving or snorkelling experiences.
- They average around 2 m in length when they mature between 6–9 years.
- Most sharks seen around Lord Howe Island are immature.
- They feed on pelagic fish, reef fish and squid.

For more information, or to get a copy of the Lord Howe Island Marine Park Guide or NSW Recreational Saltwater Fishing Guide, visit the Lord Howe Island Marine Park office or call **(02) 6563 2359**.

You can read the first report for this research at: <https://atlas.parksaustralia.gov.au/amps/research/galapagos-shark-lord-howe-marine-park>

Contact project leader Dr. Jonathan Mitchell [jonathan.mitchell@uwa.edu.au](mailto:jonathan.mitchell@uwa.edu.au) or **0476 966 941**

For rules & maps of the Lord Howe Marine Park (Commonwealth waters), visit [parksaustralia.gov.au/lordhowe](https://parksaustralia.gov.au/lordhowe)



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