Northern Australia Hammerhead Shark Tagging Program - Update

Marine Biodiversity Hub
National Environmental Science Programme

What has been happening?

Northern Australia has two large species of hammerhead sharks, the scalloped hammerhead and the great hammerhead. Scalloped hammerheads are listed as "Conservation Dependent" under Australian law, meaning that governments, industries, and communities need to consider how to better manage this species. Managers therefore need to know how both species move between state and international waters and how much populations overlap, so that threats can be identified and appropriate management actions put in place.

Since December 2016, a team from the National Environmental Science Program Marine Biodiversity Hub has been tagging and tracking hammerhead sharks to find out how the sharks are moving through northern Australian waters. The tagging team includes scientists from the Australian Institute of Marine Science, Western Australian Fisheries, Northern Territory Fisheries and James Cook University (JCU). Commercial and charter fishers have been advising the team on where to find the sharks, and Indigenous rangers from the Girringun Aboriginal Corporation, Yuku Baja Muliku, and Yirrganydji Traditional Owners joined some of the tagging expeditions in Queensland.

> *Fourteen hammerhead sharks (six great hammerheads and eight scalloped hammerheads) have been tagged with satellite tags to learn how they move between Western Australia, the Northern Territory, the Torres Strait and Queensland, and Indonesia and Papua New Guinea.*

Who we are

Dr Michelle Heupel
Australian Institute of Marine Science
Michelle is the project leader. She is a world expert in shark tagging, tracking, management and conservation, and advises the Australian Government on the best way to manage hammerhead sharks.

Dr Andrew Chin
Australian Institute of Marine Science/James Cook University
Andrew runs the shark tagging at sea. His work is on tropical fisheries with a focus on sharks and Indigenous fisheries. He also works with Indigenous youth studying marine science at JCU.

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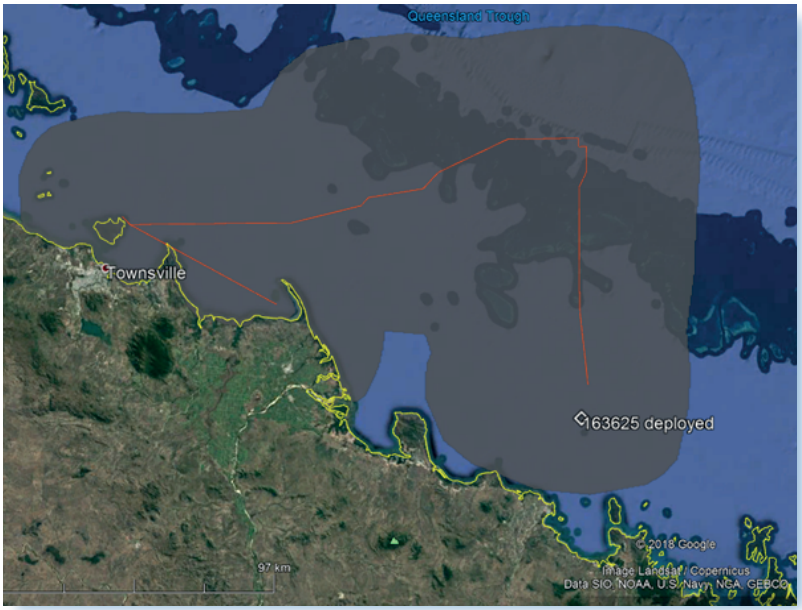
How are sharks moving?

All of the tagged sharks show localised movements, staying reasonably close to the coastal areas where they were tagged. The furthest distance an animal moved along the coast was 121 kilometres. This was a great hammerhead shark caught and tagged off Bowen, Queensland, which then moved north to the Townsville and Palm Island area. Three hammerheads tracked for six months in Exmouth Gulf, Western Australia, all stayed in the Exmouth area. All the tagged animals were relatively small (about two metres long), however, and larger animals may be moving larger distances.

What is happening now?

Tagging only provides one type of information. The project has also collected genetic samples and analysed hammerhead parasites which can also be used to find out how hammerhead sharks move between regions. Some parasites only live in specific areas, so by comparing parasites on sharks, we can determine if different sharks are from different areas.
When combined, the tagging, genetic, and parasite data should show a more complete picture of how hammerheads are moving across northern Australia, and whether they move into Indonesia and Papua New Guinea.



Tracked hammerheads, such as an animal tagged offshore of Bowen, [whose track is shown above] have shown relatively localised movements. None of the tracked animals moved interstate, or into Indonesian or PNG waters.

The NESP hammerhead project team gratefully acknowledges the assistance and advice received from Traditional Owners, commercial fishers and charter fishers, and recognises the importance of these species to communities. We welcome continued input and involvement from those interested.

The NESP Marine Biodiversity Hub is funded by the Australian Government's National Environmental Science Program.
We fund world-class biodiversity science to help decision-makers understand, manage and conserve Australia's environment.

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