

Tiger sharks revealed as lazy predators

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Credit: Murdoch University

One of the ocean's most feared predators – the tiger shark—has been revealed as a relaxed and sometimes lazy hunter by scientists studying their behaviour.

Researchers from Murdoch University's Harry Butler Institute and the Australian Institute of Marine Science (AIMS) attached specialist tags which combined cameras with motion and environmental sensors to 27

tiger sharks in the Ningaloo Reef off the coast of Western Australia.

Collecting 60 hours of footage, the tags revealed the 3-D movements of the sharks in relation to their prey, showing a number of target species including turtles, large fish and other sharks performing escape manoeuvres when a tiger shark showed interest.

"Tiger sharks are surprisingly lazy predators," said lead author Dr. Samantha Andrzejczek.

"Our tagged sharks just continued on their courses without attempting to predate on the alert individual even if they were right in front of them.

Co-author Dr. Adrian Gleiss of Murdoch University's Harry Butler Institute compared tiger sharks to lions.

"They don't waste energy stalking prey that are already aware of them and can easily escape," Dr. Gleiss said. "These sharks minimise [energy output](#) and chances of success by sneaking up on unsuspecting turtles and large fish."

Leading shark expert Dr. Mark Meekan of AIMS, another co-author of the work, said the attached cameras gave the scientists an unprecedented view of the role of [tiger](#) sharks in coral [reef](#) environments.

"We can begin to understand not just what the animals are eating, but how they alter the behaviours of the prey around them and how this may impact the coral reef," Dr. Meekan said.

"As we come up with strategies to manage and conserve these systems into the future, we need to understand how they are controlled from the top down, meaning we need to understand how these top predators are using these reefs."

The tags revealed the [tiger sharks](#) frequently hunted in the shallow sandflat habitats of Ningaloo Reef.

Clamped to the dorsal fins of the sharks by hand, the tags automatically detached after 24 to 48 hours. The floating tags were tracked down using a [radio antenna](#), and the data downloaded, providing the researchers with a day or more in the life of the shark.

The project was conducted by scientists from the Australian Institute of Marine Science, Murdoch University, the University of Western Australia and Stanford University in California.

A paper on this work has been published in *Frontiers in Marine Science*.

More information: Samantha Andrzejczek et al. Biologging Tags Reveal Links Between Fine-Scale Horizontal and Vertical Movement Behaviors in Tiger Sharks (*Galeocerdo cuvier*), *Frontiers in Marine Science* (2019). [DOI: 10.3389/fmars.2019.00229](https://doi.org/10.3389/fmars.2019.00229)

Provided by Murdoch University

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