



Media release

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Protected marine areas allow reef shark numbers to recover

While shark populations around the world are in decline, ground-breaking research has revealed why reef shark numbers are returning to a coral reef off Australia.

Marine scientists seeking answers as part of the [Global FinPrint Project](#) are using underwater cameras around the world to investigate shark numbers in Marine Protected Areas.

Global FinPrint is a three-year project funded by philanthropist and Microsoft co-founder Paul G Allen, supporting teams of marine researchers across the world to document the abundance of sharks and rays on reefs.

In the first research paper to be published from the project, led by [Australian Institute of Marine Science](#) researchers Dr Conrad Speed, [Dr Mark Meekan](#) and Dr Mike Cappo, the study provided compelling evidence that enforced marine protected areas could help rebuild reef shark populations.

Dr Speed said when they first assessed shark communities at Ashmore Reef off Western Australia's north-west coast in 2004, they found low numbers of grey reef sharks, while larger species such as the tiger shark were completely absent.

"When we returned in 2016 as part of the Global FinPrint Project to repeat the survey, eight years after enforcement of the marine protected area, we found there were more than four times as many grey reef sharks present, as well as tiger sharks and other species that were also absent from the 2004 survey," Dr Speed said.

"Applying existing demographic recovery models to grey reef shark abundance indicated the rate at which recovery occurred at Ashmore Reef, was much faster than anticipated," Dr Speed said.

Global FinPrint lead scientist and Florida International University associate professor [Dr Demian Chapman](#) said the research indicated marked conservation benefits for sharks.

"We thought this was the case but we didn't have a great deal of data to really back it up," Dr Chapman said.

AIMS lead researcher Dr Mark Meekan said the shark population at Ashmore Reef now resembled the Rowley Shoals off north-western Australia, a marine protected area for the past 25 years.

"The similarities between the two reefs suggests that Ashmore Reef has now recovered to a near-pristine level in the absence of fishing and the key thing is that it has done so much faster than anyone has predicted" Dr Meekan said.

Dr Meekan said sharks played an important role on reefs, with increasing evidence healthy shark populations may even [assist](#) coral reef recovery from mass coral bleaching and cyclones.

“We found the proportion of reef sharks increased from 28.6% to 57.6% between surveys, while large mobile sharks that prey on other shark and ray species also increased slightly from 7.1% to 11.9% of the community,” Dr Meekan said.

“This is one of the only accounts of recovery in reef shark populations around the world that we know of, which might act as a working timeframe for other marine protected areas that have been previously exploited by fishing.”

Dr Meekan said the findings on recovery time would also assist in the development and management of marine protected areas and shark sanctuaries throughout the world.

Director of biodiversity conservation at Paul G. Allen Philanthropies James Deutsch said this first glimpse of FinPrint data was exactly what they had hoped for in supporting the research effort. “Paul Allen applies technology and data to drive better decision making in ocean conservation,” Mr Deutsch said.

The paper entitled; “Evidence for rapid recovery of shark populations within a coral reef marine protected area” is published today in the journal Biological Conservation at <https://www.sciencedirect.com/science/article/pii/S0006320717311771>

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