

Decline in tiger shark population defies expectations

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A juvenile tiger shark. Credit: Albert Kok/Wikipedia

New Griffith University research has revealed a 71 percent decline in tiger sharks across Queensland's coastline.

"This has been particularly rapid in southern regions which is unusual,"' says lead author Dr. Chris Brown from the Australian Rivers Institute.



"Tiger sharks are top predators that have few <u>natural enemies</u>, so the cause of the decline is likely overfishing," he said.

"This decline is surprising, because <u>tiger sharks</u> are one of the most resilient large shark species. Mothers can birth up to 70 pups every three years, which means the population should be resilient to moderate levels of fishing."

He said past studies have implicated multiple types of fishing as causes of tiger shark death. They are caught by <u>commercial fisheries</u> both internationally and in Australian waters, <u>recreational fishing</u>, and the Queensland Shark Control Program.

"Australia has more imperiled native shark species than almost any other nation with some of the strictest regulations for shark, protection including a ban on shark finning.

"The decline in tiger sharks, which are a very resilient species, suggests that Australia is not doing enough to protect our unique shark fauna," Dr. Brown said.

"We were also surprised to learn the decline has been stronger in southern Queensland, when compared to <u>tropical waters</u>," said study coauthor Dr. George Roff from the University of Queensland.

"Tiger sharks are a tropical species and are expected to move further south with long-term warming of the East Coast of Australia."

Recent studies that followed tiger sharks with satellite trackers have identified that the East Coast of Australia is a risk hotspot for tiger sharks and commercial long-line fisheries.

The shark control program reports catching 9547 tiger sharks since



1984. Catches in commercial and recreational fisheries are not comprehensively reported.

The study was published online in the journal, *Biological Conservation* today.

More information: Christopher J. Brown et al. Life-history traits inform population trends when assessing the conservation status of a declining tiger shark population, *Biological Conservation* (2019). DOI: 10.1016/j.biocon.2019.108230

Provided by Griffith University

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