

Shark depredation impacts support for shark conservation

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Conflict between shark populations and fishing communities is reported to be rising within one of the world's first shark sanctuaries.

Fishers say increasing [shark populations](#) have reduced catch and income, according to Newcastle University research.

Shark populations around the world are in [rapid decline](#), with 24% of all [shark species](#) at risk of extinction. While efforts to protect sharks vary, 17 countries have declared their waters as 'shark sanctuaries', typically banning commercial shark fishing. In some regions this has led to increasing reports of negative fisher-shark interactions, particularly depredation—when a shark preys on a fisher's catch.

New research led by Newcastle University presents a unique overview of fisher-shark interactions, focusing on fisher perspectives within the Maldives shark sanctuary. Their results show that most fishers reported an increase in shark depredation, with substantial catch and income losses (>21%) reported by reef fishers. They also found that those experiencing greater losses due to depredation showed reduced support for the Maldives shark sanctuary.

Mapping exercises with fishers and underwater camera stations (BRUVS) were used to identify areas of high shark abundance and 'conflict hotspots' where sharks and fishing activity overlapped. This provided valuable information as to why [fishers](#) believe depredation is increasing despite stable populations in the region.

Published in the journal *Conservation Letters*, the findings suggest that management of shark depredation needs to be addressed sensitively to avoid negative implications for fisher welfare and shark population recovery.

Study lead author, Dr. Danielle Robinson, of Newcastle University's School of Natural and Environmental Sciences, says that "the study highlights the importance of more inclusive approaches to help us understand and manage depredation conflicts. Research and conservation

frameworks tend to focus on [commercial fisheries](#) due to their [economic value](#), yet our findings highlight the urgent need to consider and manage negative perceptions of small-scale fisheries when developing policy solutions."

"Fishers and sharks are competing for the same thing—fish—and I think a really exciting aspect of this study is that we were able to collect [spatial data](#) from fisher interviews and underwater cameras (BRUVS) at the same spatial scale to map areas with high conflict potential."

The study is one of few in the field to shed light on the socio-economic costs of shark sanctuaries and the importance of accounting for diverging perceptions among fisher groups.

The findings raise important issues relating to trade-offs between policies to protect biodiversity and those related to human welfare.

More information: Danielle Robinson et al, Fisher–shark interactions: A loss of support for the Maldives shark sanctuary from reef fishers whose livelihoods are affected by shark depredation, *Conservation Letters* (2022). [DOI: 10.1111/conl.12912](https://doi.org/10.1111/conl.12912)

Provided by Newcastle University

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