

## **One-third of all shark species in fin trade are endangered**

November 1 2017, by Chrystian Tejedor



Credit: Florida International University

Nearly one-third of the shark species in the global fin trade are at risk of extinction, according to a new study led by FIU marine scientist Demian Chapman.



Less than one-fifth of all <u>shark species</u> in this <u>trade</u> are fished responsibly, according to the study. It is the first time researchers have been able to estimate the number of <u>species</u> in the fin trade and categorize them by extinction risk.

"Our team of Hong Kong and U.S.-based researchers did a little DNA detective work on scraps that are produced when traders clean the fins for the retail market," Chapman said.

Knowing whether a fin came from an endangered shark species or a related species is difficult. Fins look alike after they are prepared for sale. To top it off, fins are too expensive to purchase in bulk and vendors aren't likely to donate samples for studies.

Undaunted, researchers took a walk. What they found was a city awash in shark fin vendors and trimmings that were key to the study. They quietly purchased 4,800 trimmings from almost 100 vendors and began looking for viable DNA samples.

Using custom DNA techniques so sensitive they can identify <u>sharks</u> from <u>shark fin soup</u>, cosmetics or shark liver oil, the team identified almost 80 shark, ray and chimaera species in the Hong Kong retail shark fin market – a crucial hub that reflects worldwide trends in the fin trade. The team found species that hail from coastal areas to the deep sea, that are large or small and with fins that come in different shapes and sizes, one-third of them are listed as being threatened with extinction by experts at the International Union for Conservation of Nature.

"The species diversity tells us the market sustains itself on many different fin types and that if supplies of one dry up as the species disappears in the wild the trade can continue with the others," Chapman said. "Because the fin trade is not tracked species-by-species, this sets up a situation where some types of sharks can decline towards extinction



unnoticed as the trade pushes forward with more prolific species."

Researchers also consulted a recent study that documented all of the shark and rays fisheries around the world that were managed in a way to ensure that the catch could be maintained over time.

"Stopping illegal and unsustainable trade in <u>shark fins</u> requires a comprehensive approach," said Philip Chou, an officer with The Pew Charitable Trusts' global shark conservation campaign, which supported the research. "Threatened shark species will survive only if better trade and fisheries management practices are put in place locally and internationally. Additional resources should also be invested to enhance the enforcement of existing regulations."

Only about one-fifth of the species in the Hong Kong shark <u>fin trade</u> are fished responsibly and even then, their fishing was managed in a few of the nations where the fish live. This is just the beginning for conservation efforts.

"Overall, we are seeing that conservation for sharks and their relatives has growing public support and government attention," Chapman said. "There is a very long way to go but if recent momentum continues then I think we can protect the most vulnerable species from the trade, while sustainably fishing those that are prolific enough to handle it."

Chapman's study was published in the journal Conservation Biology.

**More information:** Andrew T. Fields et al. Species composition of the international shark fin trade assessed through a retail-market survey in Hong Kong, *Conservation Biology* (2017). <u>DOI: 10.1111/cobi.13043</u>



## Provided by Florida International University

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