

For sharks on the brink of extinction, CITES Appendix II isn't protective enough (commentary)

- *Listing shark species under CITES Appendix II, which allows for well-monitored sustainable trade, has helped to save some sharks from extinction. But some species are so threatened that they need to be listed on Appendix I, which bans all trade.*
- *New research has revealed that many fins belonging to sharks protected by Appendix II are still being sold in large numbers in Hong Kong, one of the biggest markets, supporting the need for action on Appendix I listings for some species at the CITES COP20 meeting that commences next week in the Uzbek city of Samarkand.*
- *“Governments meeting at COP20 in Uzbekistan should follow the science, support these proposals, and help save these sharks and rays from the brink of extinction. It's the only way to give these species a fighting chance at survival,” a new op-ed argues.*
- *This article is a commentary. The views expressed are those of the author; not necessarily of Mongabay.*

Sharks are some of the most threatened animals on Earth, with approximately one-third of all [species assessed](#) as threatened with extinction on the IUCN Red List. These animals are not only older than dinosaurs, but older than trees, and yet they face a very real risk of extinction within our lifetimes. Their number one threat is unsustainable overfishing, driven by demand fed through complex international trade networks.

That's why ocean conservationists have focused so much attention on a powerful global wildlife trade treaty called [CITES](#), the Convention on International Trade in Endangered Species. During the last few CITES Conferences of the Parties (COPs), many of the shark species that most commonly show up in the global shark fin trade have been added to [Appendix II](#), which allows international trade as long as it is limited, monitored carefully, and demonstrated to be sustainable.

That approach has led to some huge successes, according to a [paper](#) published earlier this year. Nearly half of all CITES signatory nations made substantive reforms to their fisheries management regulations, and about a quarter improved their monitoring and enforcement of existing rules.



A mako shark in the Pacific Ocean. Image by Ron Watkins / Ocean Image Bank.

Perhaps most exciting, countries that previously had no shark fisheries management regulations at all introduced strong conservation measures for the first time. “These results show that CITES has driven countries who catch and trade sharks internationally, and who previously had no national fisheries management or trade regulations, to implement legislation to remain CITES compliant,” Mark Bond, a research assistant professor at Florida International University and the lead author of this study, told me via email. “The net effect has vastly increased the scale of shark and ray management globally, within a relatively short time frame. There is more work to be done but this is a very encouraging finding!”

These hard-won successes will help save many species of [sharks](#) from extinction, and this glimmer of hope is worth celebrating. CITES Appendix II protections work for species whose populations are healthy enough to withstand limited, well-managed trade. But for species hanging on by a thread, Appendix II is not enough, and even stronger protections — such as Appendix I, which bans all trade — is needed to save them from extinction.

Another [new research paper](#) has made some troubling discoveries, supporting the need for Appendix I listings. Researchers visited shark fin markets in Hong Kong and used cutting-edge DNA forensics techniques to identify which species of sharks the fins for sale belonged to, and from what part of the world. If CITES Appendix II protections were working as planned, researchers expected to find two things.

First, since Appendix II requires additional monitoring and documentation, the researchers expected to see the number of fins in shark fin markets match what had been reported to CITES databases. Instead, the research team found many, many more fins than had been reported to CITES. And even worse, some shark fins were traced to countries that had reported zero exports: 73 countries told CITES that they exported no fins at all, and this research data showed that some of them are not telling the truth — ignoring and undermining conservation rules. This indicates that trade in the fins of threatened species is happening illegally, with countries breaking the law and lying about it, and these dwindling sharks paying the price.

See related: [Mongabay shark investigation cited in motion to ban Brazil fin exports](#)



Shark fins for sale in Hong Kong. Image courtesy of Demian Chapman.

Indeed, despite some important success stories, unsustainable and illegal trade remains concerningly high: “CITES functions effectively and has saved species from extinction in large part because of its effective compliance processes, which check on the sustainability and legality of ongoing trade,” Luke Warwick, director of the Wildlife Conservation Society’s shark and ray program, said by email. “However, this paper’s findings show that when the next CITES compliance cycle begins after this November’s COP20, a significantly scaled up focus on shark and ray listing compliance is urgently needed to address the wide range of CITES parties who are clearly trading listed species illegally in huge quantities.”

Second, for some species of particular conservation concern, the research team expected to see fewer fins available in markets after the CITES protections came into effect. That’s because while an Appendix II listing does allow trade to continue, that trade requires some strict sustainability and documentation standards that some countries aren’t yet in the position to meet. Those countries would have to improve their fisheries management practices before export was legal, and in the meantime, they should not be exporting fins. Yet the research team found that there was no decline in the number of fins traded for several species of conservation concern, and there’s no way this could happen unless some countries are trading fins illegally.

This problem was particularly severe for oceanic whitetip sharks (*Carcharhinus longimanus*), which are showing up in the shark fin trade exactly as frequently as they did before CITES Appendix II protections came into effect. In fact, fins from oceanic whitetip sharks show up in markets 70 times more frequently than you’d expect, based on what countries report they’re exporting — clear evidence of illegal trade. Products from guitarfishes and wedgefishes (rays from the Rhinobatidae and Rhinidae families, respectively), the threatened relatives of sharks collectively called “[rhino rays](#),” also showed no decline in trade after CITES Appendix II protections.

“Some of these species have been listed on CITES for almost a decade, so countries have had a lot of time for implementation, and yet non-compliance and illegal trade remains a serious problem,” said Demian Chapman, a co-author on the new study and director of the Center for Shark Research at Mote Marine Laboratory & Aquarium in Florida. “Eighty percent of countries exporting fins to

Hong Kong do not report any of fins from these species, which is a giant red flag for illegal trade,” he said.



Oceanic whitetip shark. Image courtesy of Mark Royer, Hawaii Institute of Marine Biology.

There's no doubt that Appendix II trade has helped protect many species of sharks and rays, as well as countless other beloved species of wildlife. While unsustainable [overfishing](#) is the greatest threat to sharks and rays, sustainable fisheries for these animals [exist](#) — though these primarily can be found in wealthy countries with well-resourced fisheries management regimes — and are a popular policy solution among [scientists](#) and [conservationists](#). But for other species, and for countries without well-resourced fisheries management, populations have declined so dramatically, and illegal fishing is so rampant, that a total ban on all international trade, like a CITES Appendix I listing, is the only path forward.

“For some shark and ray species such as the oceanic whitetip or manta rays, sustainable fisheries aren't the answer — full protections at a national and regional level coupled to CITES Appendix I trade bans are the only means left to prevent their imminent extinction,” Warwick from WCS told me. “We've seen this work for other species, like [green sea turtles](#), which have been brought back from the brink. Why shouldn't the world's most threatened sharks and rays be offered the same lifeline?”

CITES Appendix II protections have been a lifeline for many threatened species of sharks and rays. But for especially endangered species like oceanic whitetip sharks and rhino rays, we need to go further. Appendix II isn't enough.

Proposals at the upcoming [CITES COP20](#) include transferring oceanic whitetip sharks from Appendix II to Appendix I, and providing similar protections for rhino rays. Governments meeting at COP20 in Uzbekistan should follow the science, support these proposals, and help save these sharks and rays from the brink of extinction. It's the only way to give these species a fighting chance at survival.

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Dulvy, N. K., Pacoureau, N., Rigby, C. L., Pollom, R. A., Jabado, R. W., Ebert, D. A., ... Simpfendorfer, C. A. (2021). Overfishing drives over one-third of all sharks and rays toward a global extinction crisis. *Current Biology*, 31(22), 5118-5119. doi:[10.1016/j.cub.2021.08.062](https://doi.org/10.1016/j.cub.2021.08.062)

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