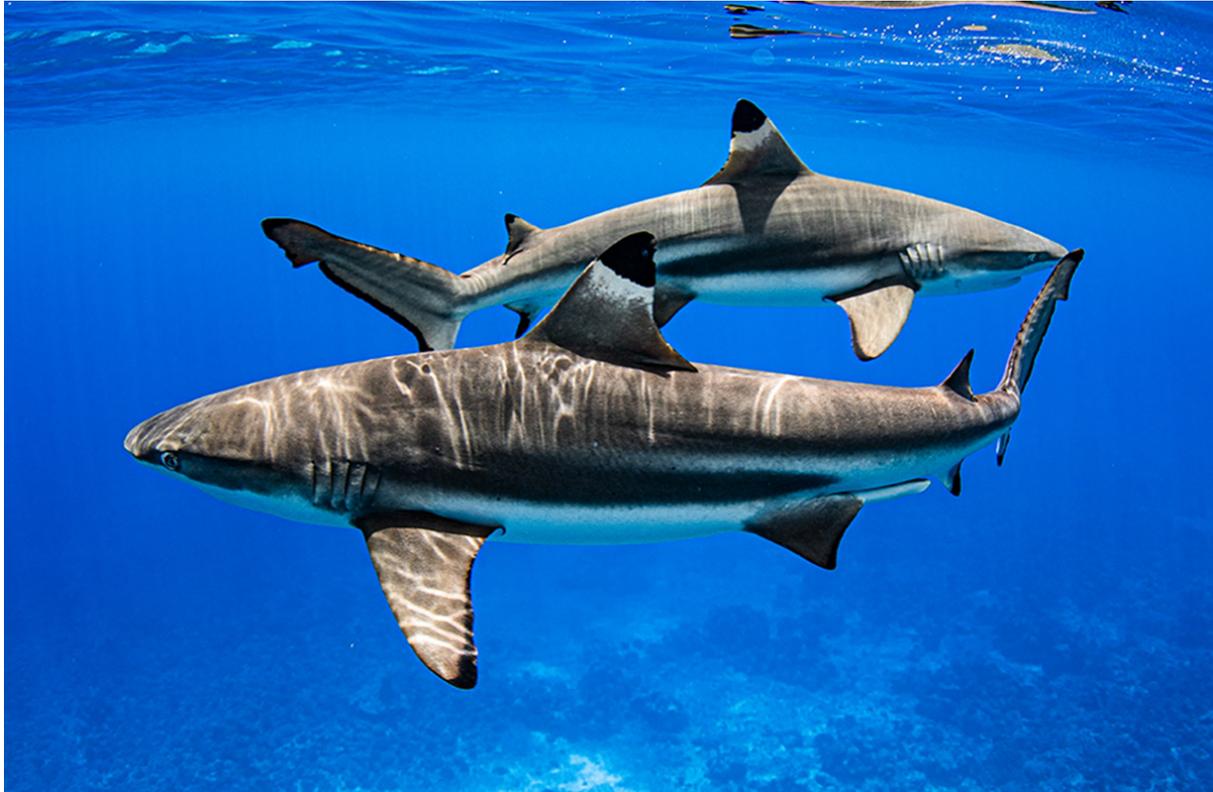


International body likely to protect many shark and ray species

New trade regulations should improve management of fishing, but the threatened predators will need many years to recover

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Blacktip reef sharks are among dozens of species for which international trade will be regulated. KIMBERLEY JEFFRIES/WCS

- In a decision conservation groups called historic, an intergovernmental organization has taken a **significant step toward regulating the trade of nearly 100 species of sharks and rays**, most of which are imperiled from overfishing. A committee of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) last week voted to oversee exports of some commercially important species, including the blue shark, that supply much of the demand for shark fin soup as well as meat.

“This is really quite spectacular,” says Amanda Vincent, a marine conservation scientist at the University of British Columbia, Vancouver.

She and other observers are optimistic that CITES member countries will this week approve the decision, which would also authorize trade regulation of 37 species of sharklike rays called guitarfishes. “Governments now have to take shark and ray fisheries management more seriously,” says Demian Chapman, a shark biologist at the Mote Marine Laboratory & Aquarium.

Many species of sharks are highly threatened because the fishing industry, seeking their valuable meat and fins, catches too many of the long-lived and slow-reproducing predators. Earlier this month, researchers reported in *Science* that **oceanic shark populations have continued to decline over the past 70 years**, in contrast to tuna populations that have begun to recover from overfishing thanks to the creation and enforcement of regulations. Overall, one-third of shark species are threatened with extinction, and two-thirds of the species that are caught for their fins or meat are in danger.

CITES is an international convention, with 183 member countries and the European Union, that can forbid or regulate international trade of imperiled species or wildlife products. The export of ivory has been banned since 1989, for example, along with export of more than 1000 species of animals and plants, on the same list, called Appendix I. The convention also keeps another list, Appendix II, of more than 37,000 species for which trade is permitted under certain circumstances. If nations export listed organisms, they must certify that the trade is “legal, sustainable, and traceable.” They must also designate scientific and management authorities tasked with guaranteeing that exports won’t harm wild populations.

If CITES determines that countries are not meeting those requirements, it can ban their exports. “It’s really extraordinary to have teeth like that,” says Vincent, who led the charge for the first marine fishes—all seahorse species—to be listed by CITES on Appendix II in 2002. That regulatory power is one reason why it has been a long struggle to get any commercially exploited shark species listed by CITES, Vincent

says; **proposals were scuttled** by countries who wanted to avoid global export regulation. “We slogged through the early years,” recalls Vincent, who chairs the Marine Conservation Committee of the International Union for Conservation of Nature (IUCN).

In 2002, CITES also voted to add the first two shark species, which had been depleted and no longer commercially important, to Appendix II. In a sign of growing momentum, Vincent says, **CITES has up to now included 48 shark and ray species**, almost all of which are commercially valuable. Vincent says the listings have increased management actions to protect the animals from overexploitation, such as better enforcement of fisheries and trade measures. These actions are “accelerating quite encouragingly,” she says.

The listings approved last week are dominated by requiem sharks, which make up **most of the global fin trade**. International export of shark meat may also have a significant impact on populations, but is less well studied. Nineteen of the listed species are severely threatened and still declining. The list will also include another 35 species that are not in as dire danger, but are difficult to distinguish from the highly threatened sharks once the animals are processed.

Most requiem sharks live in coastal waters in the tropics, where about 75% of coastal shark species are threatened with extinction. “This is the area we really need to focus our future management on because it’s in desperate need of action,” says Colin Simpfendorfer, a shark scientist at James Cook University, Townsville. “I’m quite optimistic this is going to drive some really important change.” Previously listed species spend most of their lives farther offshore and are mainly caught by large industrial vessels.

The new listings will simplify enforcement because essentially any shipment of shark fins or meat will require a permit, Chapman says. Previously, custom officials have found CITES-listed species mixed in with shipments of species that did not need a permit. A 2018 study concluded

that 12 highly threatened shark species were being **imported without CITES permits** to Hong Kong, a center of the shark fin trade. And in 2020, U.S. customs officials confiscated a shipment containing more than 5000 shark fins and found that **half were from CITES-listed species, without any permits.**

If the listings are approved during the final vote this week, nations have 1 year to determine the sustainability of their shark exports and devise appropriate management actions, such as setting quotas. For nations such as Australia, which has more than 30 shark species in its waters, that will require a good deal of work, Simpfendorfer says. Less developed nations can benefit from technical assistance or development funds, and several major shark fishing nations requested support for the first time at the meeting, says Sarah Fowler, a scientific adviser to the Save Our Seas Foundation and member of IUCN's Shark Specialist Group.

Some imperiled sharks living in the waters of countries with established fisheries management, such as Australia and the United States, have already started to recover. But Simpfendorfer notes that in many parts of the world CITES listings haven't yet increased shark populations, in part because fishing remains unsustainable and also because slow-maturing sharks take a long time to build up their numbers. "We know management works, and CITES triggers management," Chapman says. "It's a long process, but [the new listings are] a big step in the right direction."