



# Global Progress on Shark, Ray CITES Listings

Countries are taking action, but many species still need protection

## Overview

Each year, at least 63 million and as many as 273 million sharks are killed in the world's commercial fisheries, an unsustainable fishing rate driven by increasing demand for their fins, meat, liver oil, and other products.<sup>1</sup> As a result, shark populations have suffered declines worldwide, and more than half of shark species and their relatives assessed by the International Union for Conservation of Nature are categorized as Threatened or Near Threatened with extinction.<sup>2</sup>

But a turning point for shark conservation came in 2013, when five commercially traded species—**oceanic whitetip; porbeagle; and great, scalloped, and smooth hammerhead sharks**—and two species of **manta ray** were added to Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). This listing requires that any international trade in these species be legal and not detrimental to populations in the wild. Three years later, CITES parties added **bigeye, common, and pelagic thresher sharks; silky sharks; and mobula rays** to Appendix II, bringing to 20 the number of commercially important shark and ray species subject to trade measures. While more work is needed to stabilize populations of these vulnerable species worldwide, the CITES listings have prompted unprecedented implementation action by the parties.



## Workshops

Since 2016, more than 70 governments have participated in regional and domestic workshops on how to ensure that trade in sharks and rays listed on Appendix II is legal and sustainable.

These workshops aim to promote cooperation between customs, environment, and fisheries officials and build capacity domestically and among countries. Training topics included the role of governments in regulating international trade, identifying shark species based on their fins, providing enforcement guidance, and conducting non-detriment findings (NDFs)—the determination required by CITES to allow countries to continue their trade in listed species. Armed with these tools, countries can meet their CITES obligations and play an essential role in reducing shark mortality globally.

Figure 1  
Global CITES Implementation: Shark and Ray Workshops Since 2013



■ Regional ■ Domestic ■ Regional and Domestic

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## Measures to implement CITES listings

While CITES aims to ensure that international trade in species does not threaten the animals' survival, the listings have prompted governments, often for the first time, to properly manage their shark and ray fisheries or offer these animals full protection within their waters. Development of NDFs, prohibiting catch or trade of CITES-listed species, or establishing full protections can all be used to implement CITES listings for sharks and rays.

Countries can continue international trade in a species listed on Appendix II if they conduct an NDF that shows that the trade is legal and sustainable. Sri Lanka, New Zealand, and Indonesia, among others, have done that, making use of new, freely available electronic tools. Other countries—such as Cape Verde, the Philippines, and the United Arab Emirates—have prohibited the export or catch of all or some CITES-listed shark species. Still others, such as India, have put in broader measures, such as prohibiting the export of shark fins. Some governments, including most recently Samoa and the Dominican Republic, have gone even further, prohibiting commercial fishing, possession, sale, and trade of shark and ray species and their products in their waters.

Table 1  
How Countries Are Implementing CITES Appendix II Listings

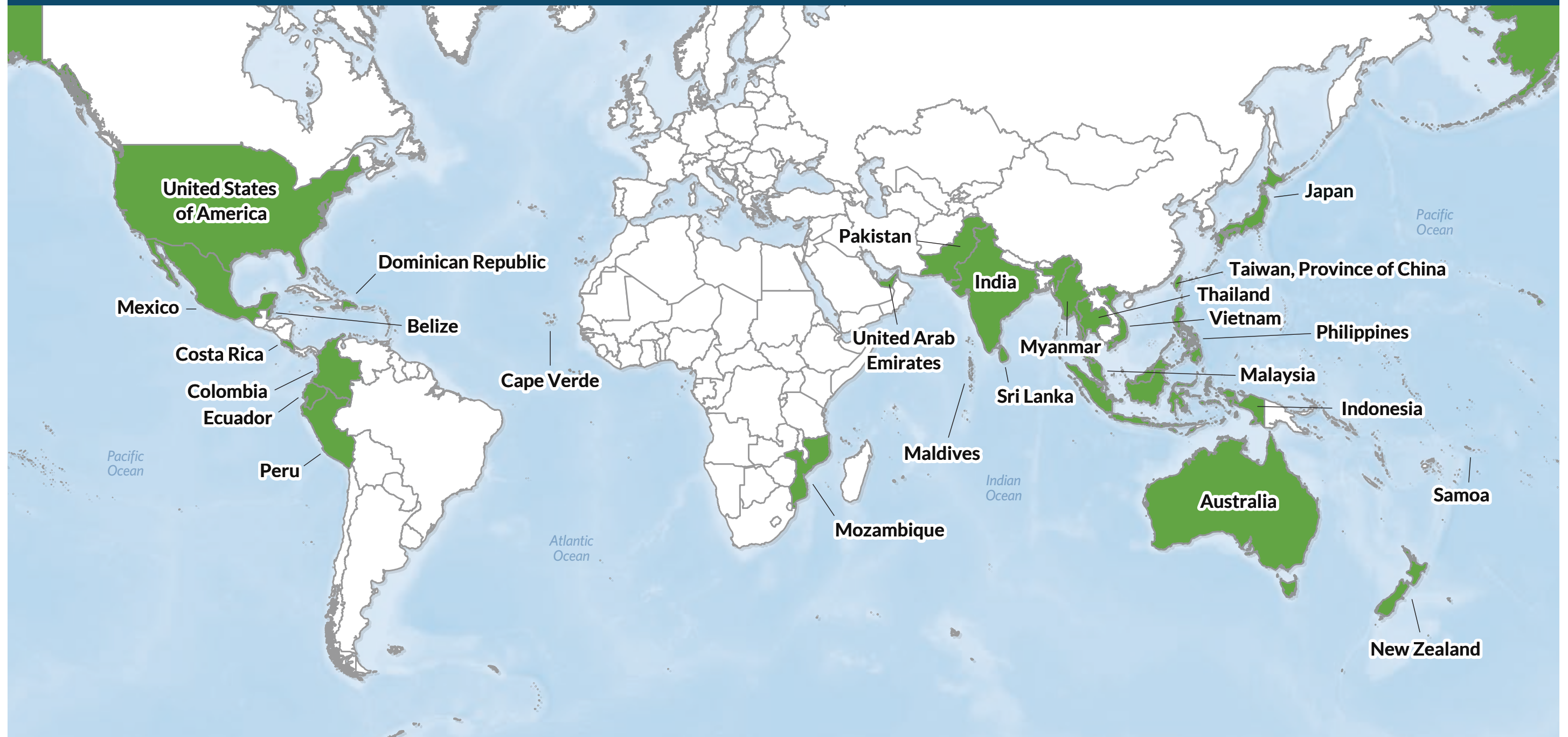
NDFs* and/or fisheries controls	Species-specific catch/trade prohibitions	Shark/ray product trade bans
Australia	Belize	Mozambique
Colombia	Cape Verde	Pakistan
Costa Rica	Colombia	Peru
Ecuador	Dominican Republic	Philippines
Indonesia	India	Samoa
Japan	Indonesia	Taiwan, Province of China
Mexico	Malaysia	Thailand
Myanmar	Maldives	United Arab Emirates
New Zealand	Mexico	United States
Peru		
Sri Lanka		
United States		
Vietnam		
		Dominican Republic
		India (only fins)
		Myanmar
		Samoa
		United Arab Emirates (only fins)

\*Positive, meaning countries are able to continue trade.

Note: These management steps are a result of shark and ray CITES Appendix II listings and were compiled using the best publicly available data. While all measures are only as effective as their enforcement, these Appendix II listings also prompted governments such as Hong Kong and Colombia to take action to strengthen enforcement measures.

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Figure 2  
Countries That Have Implemented CITES  
Appendix II Listings Since 2013



Note: The countries highlighted above were compiled using the best publicly available data.

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## Implementing CITES in the global trade hub, Hong Kong

Over half of the annual global shark fin trade passes through Hong Kong, making it critical that its government take an active role in curtailing illegal and unsustainable trade. Hong Kong's Agriculture, Fisheries, and Conservation Department has been at the forefront of global efforts to implement the new CITES listings. Since 2014, the Hong Kong government has hosted nine workshops to train its customs and enforcement officials on how to visually identify fins of CITES-listed species. Using at least in part the skills they gained in these sessions, Hong Kong customs personnel seized more than 5 metric tons of shark fins from 2014 through July 2018.

## Enforcement tools

Through training, government officials from at least 70 countries have learned how to identify and stop illegal trade in CITES-listed shark and ray species. A wide range of tools is available in multiple languages, including shark fin identification guides and posters, to help governments ensure that continued trade in these species is legal, sustainable, and traceable. Table 2 provides a summary of these tools, many of which can be found at [www.identifyingsharkfins.org](http://www.identifyingsharkfins.org) or on the CITES shark portal.

Table 2  
Tools for Stopping Illegal Trade  
A summary

<b>Shark fin ID guide</b>	A visual guide that wildlife inspectors and border personnel can use to rapidly identify the first dorsal fins and pectoral fins of the nine commercially exploited shark species in their most commonly traded form (e.g., frozen or dried and unprocessed). <a href="https://www.identifyingsharkfins.org">https://www.identifyingsharkfins.org</a>
<b>Shark fin ID posters</b>	A condensed form of the shark fin ID guide to help officials quickly identify commonly traded shark fins. <a href="https://www.identifyingsharkfins.org">https://www.identifyingsharkfins.org</a>
<b>DNA manual</b>	Genetic tools can be used on fins as well as meat and other traded products to further verify species identification at various points of the supply chain, from harvest to consumption. The manual synthesizes all available DNA protocols in published literature, outlining which to use depending on how processed the shark product is (dried, frozen, etc.). All shark and ray species listed on CITES can be identified using these genetic protocols. <a href="https://www.identifyingsharkfins.org">https://www.identifyingsharkfins.org</a>
<b>Non-detriment finding (NDF) guides</b>	Because CITES requires countries that wish to continue exporting Appendix II-listed species to conduct an NDF, these NDF guides are electronically available and are intended to ensure that exporting a listed species will not threaten its survival. In 2014, the German Federal Agency for Nature Conservation, the International Union for Conservation of Nature, and TRAFFIC produced detailed guidelines on developing NDFs to advise governments seeking to export CITES-listed shark species. <a href="https://www.cites.org/eng/prog/ndf/index.php">https://www.cites.org/eng/prog/ndf/index.php</a>
<b>Multiplex PCR mini-barcode</b>	This assay can identify all shark species listed by CITES and most that are traded internationally. The findings are based on a single polymerase chain reaction (PCR) and one to two downstream DNA-sequencing reactions. <a href="https://citessharks.org">https://citessharks.org</a>
<b>iSharkFin</b>	Software that allows port inspectors, customs agents, fish traders, and other users without formal taxonomic training to identify species by submitting a photo of a fin. <a href="http://www.fao.org/ipoa-sharks/tools/software/isharkfin">http://www.fao.org/ipoa-sharks/tools/software/isharkfin</a>
<b>CITES shark portal</b>	A website with a variety of information from CITES and the Food and Agriculture Organization of the United Nations to help countries implement shark and ray listings. This includes a shark ID materials database, guidance on how to develop NDFs, details of relevant meetings past and future, and an archive of national and regional reports, studies, posters, and multimedia. <a href="https://www.cites.org/prog/shark">https://www.cites.org/prog/shark</a>

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## Conclusion

CITES has become a driving force in global shark conservation and management. And countries have shown a commitment to implementing all of the CITES shark and ray Appendix II listings and to continuing the momentum to properly manage these species worldwide. But even with the progress made since 2013, only 3.9 to 17.8 percent of the global fin trade is regulated.<sup>3</sup> Clearly, more work is needed to ensure that these vulnerable species receive the protections a CITES Appendix II listing can provide.

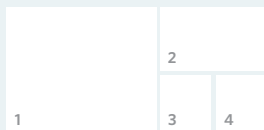
## Endnotes

- 1 Boris Worm et al., "Global Catches, Exploitation Rates, and Rebuilding Options for Sharks," *Marine Policy* 40 (2013): 194-204, <http://www.sciencedirect.com/science/article/pii/S0308597X13000055>.
- 2 Nicholas K. Dulvy et al., "Extinction Risk and Conservation of the World's Sharks and Rays," *eLife* 3 (2014): 1-34, <http://dx.doi.org/10.7554/eLife.00590>.
- 3 Andrew T. Fields et al., "Species Composition of the International Shark Fin Trade Assessed Through a Retail-Market Survey in Hong Kong," *Conservation Biology* 32, no. 2 (2017): 376-89, <https://doi.org/10.1111/cobi.13043>. The seminal study on the global shark fin trade indicates that 11.8 to 15.5 percent of the global shark fin trade is now listed on CITES Appendix II. For more on this study, see Shelley C. Clarke et al., "Identification of Shark Species Composition and Proportion in the Hong Kong Shark Fin Market Based on Molecular Genetics and Trade Records," *Conservation Biology* 20, no. 1 (2006): 201-11, <https://doi.org/10.1111/j.1523-1739.2005.00247.x>.

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**For further information, please visit:**  
[pewsharks.org](http://pewsharks.org)

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**Cover photos:**

1. Thresher shark/Jason Arnold 2. Silky shark/Jim Abernethy  
3. Manta ray/Getty Images 4. Hammerhead shark/Getty Images

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