



REPORT

UNINTENTIONAL PARTNER: HOW THE UNITED STATES HELPS THE ILLEGAL SHARK FIN MARKET

AUTHORS

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The Natural Resources Defense Council is an international nonprofit environmental organization with more than 3 million members and online activists. Since 1970, our lawyers, scientists, and other environmental specialists have worked to protect the world's natural resources, public health, and the environment. NRDC has offices in New York City, Washington, D.C., Los Angeles, San Francisco, Chicago, Montana, and Beijing. Visit us at nrdc.org.

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Executive Summary

Sharks are among the oldest and most diverse fish on the planet, and as top-level predators they play an important role in ocean ecosystems. In recent decades, however, many shark populations have suffered steep declines. Today, as many as a quarter of all shark and shark-like fish species (including skates and rays) are at risk of extinction. While demand for shark, skate, and ray meat has grown considerably in recent years, a primary threat to these species remains the lucrative market for shark fins, both legal and illegal. Some sharks are fished and traded legally, but in much of the world these activities are unregulated and unmanaged, and many sharks are caught or traded in violation of domestic and international laws. The high prices these fins command drive a global industry that now involves most of the fishing nations in the world. This industry propels both shark fishing and shark finning, the wasteful and sometimes inhumane practice of slicing the fins off a shark and discarding its body at sea, where, if still alive, it is certain to die.

The United States has played an important role in shaping global shark conservation policies. It has enacted laws to prohibit shark finning and promote sustainable shark fishing, both domestically and in international waters, and has led efforts to regulate the international shark trade. The United States has also made a strong public commitment to combating wildlife trafficking and illegal, unregulated, and unreported (IUU) fishing globally, including establishing high-level interagency task forces to address both issues.

Despite these commitments, unfettered shark fin shipments frequently pass through U.S. ports, raising questions about whether the nation is facilitating an unsustainable and sometimes illegal trade in shark fins that is contributing to the decline of many shark populations worldwide. The United States lies along well-trafficked trade routes between major shark fishing nations in Latin America and the primary shark fin markets in Asia. And while this country attempts to track the shark fins that it imports, exports, and re-exports, the *transit* of shark fins through U.S. ports (that is, their passage through the United States as they move from one foreign country to another) is virtually unmonitored and poorly understood.

To uncover the United States' potential role in helping unrestricted shark fins get to market, NRDC investigated the volume of shark fins transiting U.S. ports en route to global markets, the key countries involved in such transit, the likely legality of the fins transited, and the United States' authority over the shark fin shipments that cross its national borders. Because in-transit shipments are so poorly documented, this information was extremely challenging to assess accurately. Nonetheless, we found that the United States plays a substantial, unrecognized role in facilitating the unsustainable international shark fin trade—specifically, connecting shark fins from a number of Latin American countries to Hong Kong.

Our investigation revealed that:

- 1. The United States is an important transit hub for shark fin shipments, with fins passing through U.S. ports via air, sea, and land. Some nations in Central America ship as much as one-third to one-half of all their shark fin exports through U.S. ports.**
- 2. The Latin American nations found to ship shark fins through U.S. ports are major players in the international shark trade, both as shark-fishing nations and as suppliers of fins to the global market—including the fins of protected shark species. By allowing these fins to transit its borders, the United States is facilitating unrestricted trade in shark fins from one of the world's most important shark fin-producing regions.**
- 3. Fins from protected shark species, including those listed under the U.S. Endangered Species Act (ESA) and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), are likely common in shipments that transit U.S. borders. Many of these shipments may be in violation of U.S. law, international agreements, or both, creating an urgent need for increased monitoring of in-transit shark fin shipments.**
- 4. Despite both U.S. and international laws that regulate the shark fin trade, shark fin shipments that transit this country are very rarely inspected or documented. This failure to monitor in-transit shipments undermines domestic and international commitments to ensure the legality and sustainability of the shark fin trade.**



Ultimately, our investigation illuminates the heretofore unrecognized role that the United States plays in supporting the global shark fin trade, allowing shark fin shipments, some of them illegal, to make their way to primary markets via the U.S.—largely undetected and quite possibly in substantial amounts. Many shark populations are in steep decline, making it ever more urgent that countries ensure the legality of shark products in international trade. We demonstrate that the United States can and should act to stop illegal shark fin shipments as they pass through U.S. jurisdiction. Moreover, we argue that the United States, with its

strong legal framework and relatively robust capacity for monitoring and enforcement, can bolster the effectiveness of international laws and agreements by monitoring, inspecting, and, where relevant, seizing illegal shark fin shipments in transit. Increased surveillance would not only curtail the illegal shark fin market globally, but would also lend much-needed support to developing nations that lack the capacity to ensure that shark products originating from within, or transiting their borders, are both legal and sustainable.

With these findings in mind, we recommend a number of U.S. and international policy changes to ensure the sustainability and legality of the international shark trade and to help combat the rampant IUU shark fishing that feeds this trade. These recommendations include urging the U.S. to require that *all* shark fin shipments in transit be declared to U.S. Customs, pass through designated ports, and be subject to inspection, and urging nations that are Parties to CITES to strengthen resolutions on shark conservation and on transit and transshipment in order to increase monitoring of in-transit shark fin shipments globally.

The United States has taken steps toward being a leader in ending illegal shark fishing and trade, but there is much more to be done to safeguard these vulnerable predators throughout the world's oceans. Specifically, it must leverage its role as an intermediary in the fin trade to stop the flow of illegal wildlife products through its borders. Moreover, by prioritizing efforts to ensure the legality and sustainability of shark fins in transit, the United States can also create models for effective monitoring and enforcement and provide important leadership to the international community.

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What Is at Stake

SHARKS IN DECLINE

Sharks and their relatives, among the world's oldest and most diverse vertebrates, evolved as early as 420 million years ago.¹ Today there are more than 1,000 species of sharks, skates, rays, and chimaeras (known as elasmobranchs, or cartilaginous fishes) in the ocean, ranging from small, coastal species such as bamboo sharks and leopard sharks to large, open-ocean species like whale sharks, manta rays, and hammerheads.² As top-level predators, sharks play an important role in ocean ecosystems, helping to maintain balance among species below them on the food chain and serving as indicators of ocean health.³ Because sharks are slow to reach sexual maturity, reproduce at a slow rate, and typically bear few young, they are extremely vulnerable to overfishing.

In recent decades, these ancient predators have suffered steep declines, due primarily to overfishing.⁴ In 2014 the International Union for Conservation of Nature (IUCN) Shark Specialist Group found that roughly 25 percent of elasmobranchs are at risk of extinction.⁵ Some populations have reportedly plummeted by more than 80 percent.⁶

While the market for shark meat has grown considerably in recent years, the demand for lucrative shark fins—a luxury item in Asian cuisine that can command hundreds of dollars per kilogram—is a key driver in the rampant overfishing of many shark species.⁷ Once unintentional bycatch for fleets fishing for more valuable species such as tuna, swordfish, and other open-ocean fish, sharks are now increasingly seen as commercial species to be actively targeted.⁸ Tens of millions of sharks are caught and traded worldwide each year.⁹ Some are caught and traded legally, but much of the shark trade is unregulated and unmanaged. Many sharks—including several of the species most commonly traded for their fins—are fished illegally, in violation of domestic or international laws that protect specific shark species, establish shark sanctuaries, or restrict shark fishing and finning. Shark fins are often traded illegally as well, either because they were illegally fished or because they are imported and exported without required permits and other documentation. But because it is a common practice to mislabel shark fin shipments, many of these illegal fins successfully reach market. The global catch of sharks far exceeds the biologically sustainable take for many species, with experts estimating that only about 9 percent of the global catch is currently sustainable.¹⁰ Illegal, unregulated, and unreported (IUU) shark fishing especially undercuts global efforts to conserve sharks and shark-like fish throughout our oceans.

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CHALLENGES AND DEFICIENCIES OF GLOBAL SHARK CONSERVATION EFFORTS

Over the past 20 years, international bodies and individual nations around the world have pursued a variety of measures to address the global shark crisis.¹¹ For example, in 1999, the Food and Agriculture Organization (FAO) of the United Nations adopted an International Plan of Action for Conservation and Management of Sharks (IPOA–Sharks), which urged national governments to implement domestic shark management plans. Since 2003, 12 species of shark, 7 sawfish, 9 mobula rays, and all manta ray species have been included under Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), an international treaty seeking to ensure that international trade does not threaten survival of species in the wild. While trade in species listed under CITES Appendix I is permitted only in exceptional circumstances, Appendix II aims to control trade in listed species but does not ban it. An additional 18 species—longfin and shortfin mako sharks, and multiple species of guitarfish and wedgetfish—were listed under CITES Appendix II in 2019. Sharks have also been included in other international agreements, such as the Convention on Migratory Species. Several regional fisheries management organizations (RFMOs)—international organizations that govern fishing on the high seas—have adopted conservation and management measures for sharks, including bans on finning, retention bans for at-risk species, and shark catch reporting requirements. Finally, a number of countries have adopted measures to protect sharks domestically by banning shark finning, outlawing trade in shark fins, protecting specific species, establishing shark sanctuaries, or banning shark fishing altogether.

In much of the world, however, implementation of these laws and agreements to protect sharks is weak at best, with countries and international bodies falling far short of their stated goals. For example, the majority of nations, including several significant fishing nations, have yet to develop their own shark plans pursuant to the FAO’s IPOA–Sharks, and even where shark plans exist, effective implementation remains a concern.¹² Although advances continue to be made, many countries, especially in the developing world, lack strong fisheries management and continue to struggle with monitoring, data collection, compliance, and enforcement. Listing sharks on the CITES Appendices has spurred significant progress in regulating the international trade; however, some parties to CITES are still building the capacity to meet their obligations under the treaty, including verifying that sharks were legally acquired, assessing populations and determining sustainable levels of trade, and monitoring trade. And RFMO member states struggle to ensure compliance with the shark conservation and management measures to which they have agreed—including enforcing requirements to collect and submit data that are fundamental to shark management.

It is important to note that shark fishing and the trade in shark products, including fins, is legal for many species and in many parts of the world—although much of it is unregulated and unmanaged. Because it is so lucrative and, moreover, because the shark fin trade is lucrative and so weakly monitored worldwide, it is often not conducted in compliance with domestic and international requirements. With little surveillance of remote and high-seas activities, and with many of the shark fins in international trade originating from unmanaged fisheries in developing nations which lack monitoring and enforcement capacity, there is little doubt that a large proportion of the sharks and shark fins on the global market is the result of IUU fishing.¹³ IUU shark fishing is known to be connected to other crimes, including drug trafficking, slave labor, and other human rights abuses, offering additional reasons to make sure that shark fishing and trade in shark products is both regulated and sustainable.¹⁴

THE NEED FOR U.S. LEADERSHIP

Within this global context, the United States can—and should—play an important role in promoting shark conservation. This country is the seventh-largest shark-fishing nation in the world, as well as an important trader of both shark fins and meat.¹⁵ At the same time, U.S. policy has supported the conservation and management of sharks with approaches that have created or elevated models that other nations and international bodies can follow. For example, the United States was one of the first countries to ban shark finning and then to strengthen the law by requiring that sharks be landed with their fins naturally attached—a strategy that is considered a best practice by many shark conservationists around the world.¹⁶ The United States has also been an important voice advocating for shark conservation at the international level. It has supported the inclusion of shark and ray species under CITES; the adoption of finning bans, “fins-naturally-attached” policies, and other shark conservation measures by RFMOs; and the adoption of species-specific tariff codes for sharks by the World Customs Organization, a step that many shark experts recognize as fundamental to monitoring, understanding, and regulating international trade in shark products. Moreover, as of 2019, 12 U.S. states and three territories had banned the shark fin trade within their jurisdictions, and federal bills to ban shark fin sales and possession nationally are moving through Congress.¹⁷

Each year, we allow large volumes of fins to pass through our borders unmonitored and unrecorded. Many of these shark fins are illegally traded, the result of IUU fishing, or both.

The United States has also made a public commitment to address both IUU fishing and wildlife trafficking in general, launching interagency task forces in 2014 to develop national strategies for combating these significant environmental threats. Meanwhile, the High Seas Driftnet Fishing Moratorium Protection Act, a U.S. law, empowers the United States to identify, consult with, and ultimately sanction foreign nations whose fleets are engaged in illegal and unsustainable shark fishing on the high seas, including by banning some seafood imports tied to fleets that are engaged in IUU shark fishing.

But while the United States drives global standards for shark conservation—and even as it moves toward potentially adopting a national fin-trade ban—the country also plays an unrecognized role in facilitating the unsustainable and sometimes illegal shark fin trade. Each year, we allow large volumes of fins to pass through our borders unmonitored and unrecorded. Many of these shark fins are illegally traded, the result of IUU fishing, or both. These “in-transit” shipments are destined for markets beyond the United States, moving from foreign exporting nations to their final destinations through U.S. transit hubs. Because they do not enter the United States for domestic consumption, they are less likely to be monitored and inspected. But because they pass through U.S. jurisdiction, these shipments should comply with U.S. laws. This puts the United States in a strong position both to ensure that in-transit shark fin shipments are legal and to promote sustainability and legality within the larger global shark trade.

Key Findings

NRDC conducted independent, original research into in-transit shark fin shipments and analyzed available reports and investigations. (Our methodology is detailed in Appendix I.) Our research and analysis led us to several important findings.

FINDING 1: The United States is an important transit hub for shark fin shipments, with fins passing through U.S. ports via air, sea, and land. Some nations in Central America ship as much as one-third to one-half of all their shark fin exports through the United States.

FIGURE 1: HOW MANY SHARKS DOES IT TAKE TO MAKE 1 METRIC TON OF FINNS?



Shark experts interviewed by NRDC estimate that 1 metric ton of dried shark fins represents roughly 1,500 sharks.

NRDC's investigation identified a minimum of 591 to 859 metric tons of shark fins that transited through the United States. In most cases, the data did not provide adequate information to determine whether fins were dried, in brine, or frozen, which makes it difficult to determine how many sharks are represented by the shipments that passed through U.S. ports. Assuming all fins were dried, however, the in-transit shipments identified by NRDC represent roughly 886,500 to 1.29 million sharks.

The United States is a key transit point for shark fin exports from at least 10 Latin American countries: Costa Rica, Panama, Ecuador, Mexico, Peru, Suriname, Trinidad and Tobago, Guatemala, Nicaragua, and Chile. NRDC discovered dozens of in-transit shipments from these countries, primarily but not exclusively en route to Asia, with the vast majority going to Hong Kong.

Between 2010 and 2017, a minimum of 591 to 701 metric tons of shark fin exports from these nations—and possibly as much as 859 metric tons—passed through U.S. ports (Appendix II). That volume of shark fins requires killing roughly 886,500 to more than 1.29 million sharks over the seven-year period (Figure 1). But it is likely that our research uncovered only a small fraction of in-transit shark fin shipments and that the actual volume of shark fins that passes unmonitored through U.S. ports is even higher.

SHARK FIN TRANSIT THROUGH U.S. PORTS

Highlights of our investigation include the following:

- NRDC's review of U.S. shipping records identified 55 shipments that transited through U.S. seaports en route to Hong Kong between 2011 and 2015, totaling a minimum of 197 metric tons of dried fins and possibly as much as 355 metric tons. These shipments originated in Ecuador, Mexico, Costa Rica, Trinidad and Tobago, and Suriname. Ecuador was the country of origin for more than half of the shipments (51 percent), and Mexico provided more than one-third (38 percent). Nearly three-quarters (73 percent) of these shipments transited through the Port of Los Angeles, followed by the Ports of Honolulu and Long Beach.
- Records provided by the National Marine Fisheries Service (NMFS) in partial response to NRDC's Freedom of Information Act (FOIA) request revealed eight additional instances of transit totaling roughly 31 metric tons of shark fins. These shipments originated in Panama, Guatemala, Mexico, and Chile, with the bulk of the fins coming from Central America (88 percent).¹⁸ These shipments transited through Seattle; Norfolk, Virginia; San Diego; and Oakland en route to Hong Kong. Five of the eight shipments went through Seattle.
- Research provided to NRDC by Latin American conservation organizations MarViva and Oceana Perú revealed substantial additional shark fin shipments transiting U.S. ports en route to Hong Kong: at least 221 metric tons from Costa Rica, all shipped by air; at least 160 metric tons from Panama, shipped by air and by sea; and a minimum of 3 metric tons from Peru.
- Seven additional instances of in-transit shipments were reported by conservation organizations or shared anonymously. PRETOMA (Programa Restauración de Tortugas Marinas) and the Oceanic Preservation Society shared documents related to four shipments, three of which included shark fins exported from Costa Rica to Hong Kong, transiting through Miami International Airport in late 2014 and early 2015 and totaling just over 1 metric ton.¹⁹ The fourth shipment, containing at least 0.88 metric tons of fins, originated in Panama and transited through Houston.²⁰ Three anonymously reported transit instances shipped by air between 2014 and 2015 and originated in Mexico, Nicaragua, and Guatemala, totaling 4.52, 0.89, and 0.67 metric tons, respectively. Each of these shipments transited through at least two U.S. ports en route to Hong Kong. The Mexican and Nicaraguan shipments traveled through both Atlanta and Seattle, while the Guatemalan shipment passed through Los Angeles and Seattle.
- Independent research conducted by the *Miami Herald* identified Miami International Airport as a major transit point for Central American fins making their way to Hong Kong. The *Miami Herald* reported that Costa Rican companies alone transited nearly 82 metric tons of shark fins—worth roughly \$2.5 million—through Miami International to Asia between 2015 and 2017.²¹

For details of the evidence we uncovered, see Appendix II.

THE FLOW OF SHARK FINS THROUGH THE UNITED STATES

At least 10 Latin American nations were found to ship shark fins through the U.S. en route to global markets between 2010 and 2017, possibly representing more than 1.29 million sharks. And that may just be the tip of the iceberg. Some nations, such as Panama and Costa Rica, ship as much as one-third to one-half of their shark fin exports through U.S. ports. But because these shipments merely transit U.S. ports, they are rarely inspected. Many of the shark species traded for their fins are protected under international law, U.S. law, or both—yet they remain extremely common in the international fin trade. This makes it crucially important that the U.S. monitor these in-transit shark fin shipments to ensure that trade is legal.

FINAL DESTINATIONS OF SHIPMENTS:

HONG KONG
 ASIA (UNSPECIFIED DESTINATIONS)
 CHINA
 CANADA



TOP 5 COUNTRIES EXPORTING FINS THROUGH THE U.S.:

1. COSTA RICA
2. ECUADOR
3. PANAMA
4. MEXICO
5. PERU

MOST FREQUENTLY USED PORTS FOR SHARK FIN TRANSIT:

1. PORT OF LOS ANGELES AND LONG BEACH
2. MIAMI INTERNATIONAL AIRPORT
3. PORT OF HONOLULU
4. PORT OF OAKLAND
5. SEATTLE-TACOMA INTERNATIONAL AIRPORT

Beyond aggregate volumes, the information NRDC reviewed for this investigation indicates that the United States is a significant transit hub for shark fin exports from at least two Central American nations: Costa Rica and Panama. Research conducted by the conservation organization MarViva indicates that 50 percent of all of Costa Rica’s shark fin exports between 2010 and 2017 were shipped through the United States, with a striking 87 percent passing through Miami International Airport. Most other shipments from Costa Rica transited through Los Angeles International Airport (7 percent) and Dallas/Fort Worth (4 percent). About one-third (34 percent) of all shark fin exports from Panama between 2010 and 2017 passed through U.S. ports via both sea and air. The majority of these shipments passed through Long Beach, California (53 percent), followed by the Port of Los Angeles (37 percent) and Los Angeles International Airport (6 percent).²²

Some U.S. ports stand out as key transit points for shark fin shipments (Table 1). The majority of in-transit shipments identified through this investigation passed through the port complex of Los Angeles, including the Los Angeles maritime port and the airport (354 metric tons), and the Port of Long Beach (132 metric tons). An additional 274 metric tons of transited fins moved through Miami International Airport. It is important to note, however, that the primary ports for shark fin shipments have shifted in recent years. The *Miami Herald* reported that first Los Angeles and then Houston served for years as transit hubs for fins from Central America, but that the trade is shifting to Florida in response to fin trade bans in California and Texas.²³ While we found a much smaller volume of fins transiting through Seattle–Tacoma International Airport (a minimum of 12 metric tons), anecdotal evidence suggests fins may pass through this airport frequently, and the majority of the law enforcement cases NRDC identified occurred there.

TABLE 1: U.S. PORTS THROUGH WHICH SHARK FINS TRANSITED

Table 1 illustrates the relative importance of U.S. ports, based on all the transit data revealed through our investigation. The table includes all shipments that listed a specific U.S. port of transit. Not all data sets specified the weight of the shark fin shipment. A “+” indicates the presence of additional shipments for which shark fin weight was not specified.

STATE	TRANSIT LOCATION ^a	MODE OF TRANSPORT	METRIC TONS TRANSITED
California	Los Angeles	Sea	326.81
		Air	26.84
	Long Beach	Sea	131.82
		Not Specified	1.59
	San Diego (Otay Mesa)*	Land	0.49
Port of Oakland	Not Specified ^b	24.02	
Florida	Miami International Airport	Air	273.81
Hawaii	Port of Honolulu	Sea	36.55
Texas	Dallas/Fort Worth International Airport	Air	8.54
	Houston	Sea	0.88
	Houston	Air	0.17
Washington	Seattle–Tacoma International Airport	Air	12.22 +
Georgia	Atlanta	Air	8.05
New York	New York	Sea	2.22
New Jersey	Newark Liberty International Airport	Air	6.26
Tennessee	Memphis	Air	0.61
Massachusetts	Boston	Air	0.38
Pennsylvania	Pipersville Airport*	Air	0.33
Virginia	Norfolk*	Sea	Not Specified
Total Amount Transited			859.58^c

- a Most of the ports in Table 1 are identified by the U.S. Fish and Wildlife Service Office of Law Enforcement as designated ports through which generally all wildlife should be imported and exported. Agency personnel indicated that the U.S. government considers Los Angeles/Long Beach and San Francisco/Oakland/San Jose as port complexes, and thus considers both Long Beach and Oakland to be “designated ports.” San Diego, Norfolk, and Pipersville, Pennsylvania, however, are not identified as designated ports for import and export of wildlife products and are indicated by the asterisks (*). U.S. Fish and Wildlife Service, “Office of Law Enforcement—Designated Ports,” last updated November 14, 2017, www.fws.gov/le/designated-ports.html.
- b Documents provided by NOAA did not specify the mode of transport for this shipment; however, anecdotal information gathered by NRDC indicates that it likely arrived by cargo ship.
- c The total in Table 1 and the Total Maximum Weight in Table A1 differ slightly because some shipments identified in our research (through Peruvian shipping data and by PRETOMA) did not list a specific U.S. port and were thus not counted in Table 2, and one shipment transited through two U.S. ports (Seattle and Atlanta) and is reflected in the totals for both.

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Fishermen haul in a blacktip shark (*Carcharhinus limbatus*) caught on a longline at Cocos Island, Costa Rica, a marine protected area and critical shark habitat.

Our findings almost certainly represent only a small percentage of the total shark fin shipments that pass through the United States—just the tip of an iceberg that is difficult to see in full. There are several reasons for this:

1. NRDC’s independent research focused on shipments with a final destination of Hong Kong and did not investigate in-transit shipments to other major shark fin markets, such as mainland China, Malaysia, Singapore, and Vietnam.
2. The research conducted by NRDC and MarViva drew on data from a single global shipping database (Penta-Transaction) and was therefore limited to the information collected by this company. Most trade database services do not have complete access to all worldwide shipping records, but rather to only a few select shipping companies and the countries with which the database services have contracted. This makes it difficult to capture total global trade volume and shipping activity.
3. Shipping records generally provide minimal information, often listing only the country of origin and destination, ignoring any stops the shipment makes en route. Transit information can sometimes be gathered through other means, but not always. In fact, because of significant inconsistencies in the way data are recorded, it is possible to conduct similar searches in the same database and come up with different results. For example, NRDC focused on shipments that reported arrival into or transit through U.S. ports; by contrast, MarViva analyzed shipping records from all exports that originated in Costa Rica and Panama against other in-country trade information, which yielded more data about intermediary ports. There was very little overlap between the records each group identified, which suggests that neither method yielded a complete picture of transit through U.S. ports—and that the data presented in this report may show only a fraction of actual transit during the period under study.
4. Both NRDC and MarViva were limited to shipping records that explicitly declared shark fins as part of the shipment, either by listing one of several official shark fin tariff codes or by writing “shark fin” in the product description. However, we know that it is common for shark fin shipments to lack those specific codes, and shipping records may not indicate that fins are present. Describing shark fins as “frozen seafood” or “dried seafood” is a common practice.²⁴

These challenges, complicated by mislabeled shipments and even efforts to smuggle the fins of protected sharks into the market, make it extremely difficult, even impossible, to quantify the true volume of shark fins that pass through U.S. ports. So, while we identify a range of 591 to 859 metric tons between 2010 and 2017, actual amounts could be substantially higher. Even without knowing the exact numbers, it is clear that the United States serves as a key transit hub for shark fin shipments and thus plays a crucial role in helping these fins get to market.

SHARK FIN TRANSIT AROUND THE WORLD

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NRDC’s investigation focused on transit through U.S. ports, but the evidence we gathered indicates that shark fin shipments often transit the jurisdiction of other nations as well. For example, our independent review of U.S. shipping records found that 46 percent of the shipments headed to Hong Kong had a loading port outside the stated country of origin. Although Ecuador is indicated as the country of origin for more than half of the shark fin shipments that transited the United States, only 15 percent of these exports actually shipped from Ecuador. Mexico shipped 64 percent of the fins for which it was listed as the country of origin, and Panama shipped just 20 percent of all Panama-origin fins.

It is unclear how these fins made their way from the country of origin to the country of export; perhaps they were fished by a vessel from one country but landed in a different one. Still, these data support anecdotal evidence that shark fins are often aggregated within Latin America before export to Asia. Moreover, they demonstrate that shark fin shipments can pass through multiple countries as they make their way to Hong Kong and that other nations besides the United States may also serve as transit points that facilitate the international shark fin

trade. Finally, the dynamics of regional aggregation and transit through intermediary countries exist in other regions of the world beyond the Americas.²⁵ This illustrates the truly international nature of the shark fin trade and underscores the important role intermediary nations can play in ensuring the legality of the trade. It makes a strong argument for nations that serve as transit hubs to increase their monitoring and inspection of shark fin shipments and to prioritize enforcement against illegal shipments.

FINDING 2: The Latin American nations found to ship shark fins through U.S. ports are major players in the international shark trade, both as shark-fishing nations and as suppliers of fins to the global market—including the fins of protected shark species. By allowing these fins to transit its borders, the United States is facilitating unrestricted trade in shark fins from one of the world’s most important shark fin-producing regions.

According to the FAO’s 2015 analysis of global shark trade, six of the ten countries found to export shark fins through the United States to Hong Kong ranked among the world’s top 40 shark-fishing nations: Mexico, Peru, Costa Rica, Chile, Panama, and Ecuador.²⁶ Moreover, four of the six countries—Mexico, Ecuador, Costa Rica, and Peru—are among the top 20 nations reporting catches of the shark species most commonly found in the fin trade (Table 2).²⁷ Many of these most-common species are protected under CITES or under the U.S. Endangered Species Act (ESA) (see Finding 3).

FAO also reports that at least four of the ten countries rank among the top 20 shark fin exporters, with Peru, Trinidad and Tobago, Ecuador, and Panama each exporting approximately 1 percent of the world’s shark fins.²⁸ It should be noted that these rankings are based on voluntary reporting, and that the true volume of global shark captures and trade is likely to be quite a bit higher.²⁹ For example, according to FAO’s 2015 report, Costa Rica’s average fin exports are likely 10 times higher than the figures reported to FAO, which would make Costa Rica the eighth-largest fin exporter in the world in terms of volume, exporting between 3 percent and 5 percent of the world’s shark fins, based on the rankings in that report.³⁰

Considered together, the 10 countries routing shark fins through the United States supplied between 15 percent and 23 percent of the fins entering the Hong Kong market between 2010 and 2017. Collectively, these nations supplied more fins to the contemporary Hong Kong market than top-ranked Spain, ... the third-largest shark-fishing nation in the world.

TABLE 2: TOP 20 COUNTRIES CAPTURING THE SHARK SPECIES MOST COMMONLY FOUND IN THE SHARK FIN TRADE^d (BASED ON FAO 2015 ANALYSIS)

This table shows reported catches for the shark species most common in the shark fin trade.^e Not all nations report shark catches to the Food and Agriculture Organization (FAO) at the species level, however, so including only species-level reporting may artificially inflate the role of nations that do report catch by species. For this reason, we have also included any catch of sharks, skates, and rays reported to FAO without a species-specific categorization.

RANK	COUNTRY	COUNTRY TOTAL (IN METRIC TONS)	PERCENTAGE OF TOTAL GLOBAL CAPTURE
1	Spain	533,503	20.30
2	India	430,888	16.40
3	Taiwan	201,850	7.68
4	Mexico	170,137	6.48
5	Indonesia	125,814	4.79
6	Japan	113,592	4.32
7	Nigeria	90,698	3.45
8	Portugal	89,152	3.39
9	Brazil	88,227	3.36
10	Yemen	72,431	2.76
11	Malaysia	48,216	1.84
12	Oman	47,427	1.81
13	Sri Lanka	45,723	1.74
14	Ghana	40,572	1.54
15	Madagascar	39,649	1.51
16	Tanzania	36,584	1.39
17	Bangladesh	32,483	1.24
18	Costa Rica	30,946	1.18
19	Ecuador	30,427	1.16
20	Peru	28,769	1.09
Total Top 20 Capture		2,297,088	87.43
Total Global Capture		2,627,469	100

d 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.

e FAO Fisheries and Aquaculture Department, “FishStat.J—Software for Fishery and Aquaculture Statistical Time Series,” www.fao.org/fishery/statistics/software/fishstatj/en (accessed March 2019).

TABLE 3: TOP 10 REPORTED SHARK FIN EXPORTING COUNTRIES TO HONG KONG^f (2010–2017)

RANK	COUNTRY	PERCENTAGE OF TOTAL REPORTED IMPORTS
1	Spain	14.01
2	Singapore	10.5
3	Taiwan	8.68
4	United Arab Emirates	6.51
5	Indonesia	6.43
6	Yemen	5.63
7	Peru	5.09
8	Mexico	5.04
9	Ecuador	3.45
10	Senegal	3.09

^f Data were adjusted to correct a factor that can potentially skew the relative rank of shark fin exporting nations: including the water content of shark fins that are salted, in brine solution, or in frozen form, which increases the declared shark fin weight. The wet shark fin imports were adjusted to 25 percent of their declared weight to derive the dry weight equivalent.

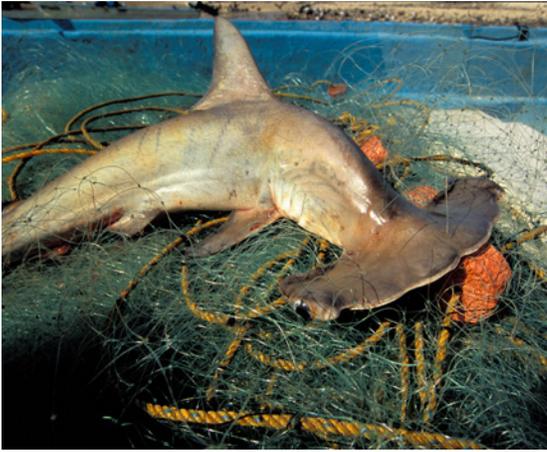
Zeroing in on Hong Kong’s shark fin imports between 2010 and 2017 offers a more precise picture of the global significance of fin trade that passes through U.S. ports. Hong Kong (among other important Asian importers such as mainland China, Japan, Taiwan, and Singapore) has long been at the center of global shark fin consumption and trade, traditionally receiving approximately 50 percent of all global shark fin imports, although this percentage has declined somewhat in recent years.³¹ The Hong Kong Census Database tracks actual trade data, creating some of the most reliable and comprehensive data sets for a range of marine resources, including shark fins.³² Because a large proportion of fins in global trade pass through Hong Kong, these statistics are also considered a reasonable proxy for the worldwide shark fin market.³³

As Table 3 shows, the top contributors to Hong Kong’s fin market between 2010 and 2017 were Spain (14 percent), Singapore (11 percent), Taiwan (9 percent), and the United Arab Emirates (7 percent), all countries for which transit through U.S. ports to reach Asia makes little geographic sense.³⁴ However, those countries that do transit fins through U.S. ports en route to Hong Kong also play an important role—both individually and collectively. For example, Peru, Mexico and Ecuador contributed 5.1 percent, 5 percent, and 3.5 percent of the total Hong Kong market, ranking seventh, eighth, and ninth, respectively. Costa Rica was responsible for roughly 2 percent of Hong Kong imports (Table 4).

TABLE 4: HONG KONG SHARK FIN IMPORTS FROM COUNTRIES FOUND TO TRANSIT FINS THROUGH THE UNITED STATES^h (IN METRIC TONS)

COUNTRY	2010	2011	2012	2013	2014	2015	2016	2017	STUDY PERIOD	PERCENTAGE OF TOTAL HONG KONG IMPORTS (2010–2017)
Peru	196.11	208.68	137.98	125.33	200.36	247.77	386.43	246.85	1,749.50	5.09
Mexico	319.24	292.99	173.82	179.08	216.93	192.43	211.97	145.04	1,731.51	5.04
Ecuador	206.93	184.89	149.94	203.58	185.73	121.33	114.72	17.01	1,184.12	3.45
Costa Rica	143.25	131.97	109.97	65.14	47.84	56.18	53.00	50.35	657.69	1.91
Trinidad and Tobago	34.07	86.80	99.08	47.62	9.73	15.17	27.50	0.67	320.63	0.93
Guatemala	37.46	48.39	21.45	14.00	8.84	21.61	16.99	11.29	180.03	0.52
Chile	28.52	32.59	32.42	16.30	20.60	28.25	5.95	11.95	176.60	0.51
Panama	36.94	26.16	26.13	14.00	7.91	2.27	14.22	12.16	139.79	0.41
Nicaragua	15.40	25.02	8.48	2.99	4.71	1.80	5.13	1.22	64.75	0.19
Suriname	7.53	0.65	1.29	0.00	0.00	0.00	0.00	0.00	9.47	0.03
Total Hong Kong Shark Fin Imports from These Countries	1,025.46	1,038.14	760.55	668.04	702.65	686.81	835.91	496.53	6,214.09	18.09
Total Hong Kong Shark Fin Imports from Countries Worldwide	6,136.89	6,452.71	4,412.45	3,340.88	3,470.13	3,530.23	3,641.30	3,370.22	34,354.79	100.00
Annual Contribution to Hong Kong’s Fin Trade by Nations Shipping Through U.S. Ports (%)	16.71	16.09	17.24	20.00	20.25	19.46	22.96	14.73	18.09	

^h Data were adjusted to correct a factor that can potentially inflate the import totals: including the water content of shark fins that are salted, in brine solution, or in frozen form, which increases the declared shark fin weight. The wet shark fin imports were adjusted to 25 percent of their declared weight to get the dry weight equivalent.



Scalloped hammerhead at a shark finning camp in Mexico, Pacific Ocean.

Considered together, the 10 countries routing shark fins through the United States supplied between 15 percent and 23 percent of the fins entering the Hong Kong market between 2010 and 2017 (Table 4). Collectively, these nations supplied more fins to the contemporary Hong Kong market than top-ranked Spain, which supplied 14 percent of Hong Kong's fins during this period and is the third-largest shark-fishing nation in the world.³⁵ As Table 4 shows, supply from the top three Latin American nations alone—Peru, Mexico, and Ecuador—accounted for just under 14 percent of Hong Kong imports, nearly equal to that of Spain.

On the basis of our investigation, we believe that a substantial portion of the trade from Latin America is passing through U.S. jurisdiction, unmonitored, as it enters the global market. As a result, the United States is undeniably facilitating the trade in shark fins from one of the world's most important shark fin-producing regions.

FINDING 3: Fins from protected shark species—including those protected under CITES and the ESA, such as the endangered scalloped hammerhead—are likely common in shipments that transit U.S. borders. Many of these shipments may be in violation of U.S. law, international agreements, or both, creating an urgent need for increased monitoring of in-transit shark fin shipments.

CITES-listed shark species are abundant in the contemporary fin trade. Studies in 2017 and 2018 found that silky sharks were the second-most-common species in the Hong Kong market, with scalloped hammerhead and smooth hammerhead sharks ranking fourth and fifth.³⁶ The IUCN considers all three to be endangered or vulnerable.³⁷ At least one of the hammerhead species was present in every single collection of fin trimmings randomly sampled from the Hong Kong retail market for the 2018 study.³⁸ Other CITES-listed sharks, such as oceanic whitetip, great hammerhead, and two thresher shark species, were common as well. The fact that CITES-listed species make up a substantial percentage of the shark fins most common in the trade suggests a high likelihood that any given shark fin shipment will contain listed species.³⁹

Many of the countries found to transit fins through U.S. ports are major contributors of CITES-listed species to the global market.

Even more troubling, many of the countries found to transit fins through U.S. ports are major contributors of CITES-listed species to the global market. A 2018 study found that Mexico, Costa Rica, and Nicaragua were among the top six nations reporting exports of CITES-listed shark fins to Hong Kong, with Mexico alone supplying 76 percent of these exports.⁴⁰ Between 2014 and 2017, Hong Kong reported importing 73 percent of all its hammerhead fins from Mexico.⁴¹ These figures are based on self-reported trade and likely represent only a small fraction of all imports into Hong Kong. Because several countries known to land and export CITES-listed sharks did not appear in the CITES trade database, the significance of these three Latin American nations may be artificially inflated.⁴² It is important to acknowledge the efforts of those countries that report trade in CITES-listed species, in compliance with the CITES treaty, as this is crucial to bringing transparency and traceability to the shark fin trade. Nevertheless, the fact that several of the countries shipping fins through the United States are reporting significant exports of CITES-listed species to Hong Kong argues for robust monitoring of these shipments in order to ensure they are legal and in compliance with CITES requirements.

CITES NON-DETRIMENT FINDINGS

CITES requires an affirmative finding by exporting Parties that each instance of trade in Appendix II specimens will not be detrimental to the survival of the species. Nations trading in Appendix II species must issue an export permit that verifies legal acquisition and ensures the traceability of specimens. Nations must also certify that the specimens exported are sustainable, based on a non-detriment finding (NDF).

The CITES resolution on non-detriment findings (Resolution Conf. 16.7) provides detailed guidelines for making NDFs;⁴³ however, the treaty does not require written NDFs, and many parties consider the issuance of a CITES export permit as de facto evidence that an affirmative NDF was made. Resolution Conf. 16.7, however, encourages Parties to base NDFs on a scientific assessment, to maintain written records of the science-based rationale for NDF assessments, and to make this information public on the CITES website. Many countries have developed comprehensive NDFs that follow the CITES recommendations.

NRDC was unable to confirm that some of the nations shipping fins through the United States, such as Guatemala, Nicaragua, and Panama, have published or made available written NDFs for their shark fin exports, making it more difficult to determine whether international trade in shark fins from these nations is in compliance with the CITES treaty.⁴⁴

NRDC's conversations with experts in the United States, Mexico, Central America, Peru, Ecuador, and Hong Kong gave further evidence that the shark fin trade emerging from the nations shipping fins through the U.S. includes significant exports of CITES-listed species. Peruvian conservationists pointed to a March 2018 seizure of shark fin exports that was found to contain approximately 80 percent thresher shark fins, and an August 2018 seizure that revealed nine tons of thresher and silky shark fins.⁴⁵ Experts working in Central America reported that thresher, hammerhead, and silky shark fins are dried in very large volumes at docks throughout the region. One authority told us that one of Costa Rica's largest shark fin traders exports roughly 90 percent silky shark and thresher shark fins.⁴⁶ Other experts stated that in Ecuador (which catches large percentages of CITES-listed sharks), fins from sharks caught in excess of quotas are commonly driven to the border town of Huaquillas and sold to Peru for export.⁴⁷

Consequently, NRDC was not surprised to find that CITES-listed and ESA-listed sharks were present in most of the in-transit shipments that we reviewed. NRDC was able to uncover 12 instances of shark fin transit that included species information, gleaned from reports from conservation organizations and media and from law enforcement documents provided to NRDC by NMFS.⁴⁸ Nine of these 12 explicitly mentioned CITES-listed sharks, and it was extremely likely that a tenth contained them as well.

Among the eight U.S. law enforcement cases we reviewed that addressed shark fin transit through the United States, at least five involved federally endangered and/or CITES-listed shark species, including hammerheads and silky sharks (Table 5). Documents related to a sixth case, with fins passing through the Port of Oakland, did not specify shark species; however, anecdotal evidence from sources familiar with this incident indicates that the shipment also contained a significant number of fins from protected shark species, commingled with fins from non-protected species. None of the shipments appear to have been accompanied by the required CITES permits. Notably, many of the shipments were initially flagged by law enforcement not for concerns about species but for other reasons, including mislabeling and questionable paperwork.

TABLE 5: U.S. LAW ENFORCEMENT CASES INVOLVING THE TRANSIT OF SHARK FINS THROUGH THE UNITED STATES¹

YEAR	COUNTRY OF ORIGIN	U.S. TRANSIT LOCATION	MODE OF TRANSPORT	DESTINATION	VOLUME (METRIC TONS)	SHARK SPECIES PRESENT IN SHIPMENT	CASE HIGHLIGHTS
2015	Guatemala	Seattle, WA	Air	Hong Kong	1.013 (27 sacks)	Hammerhead and silky sharks	Shipment did not include the required CITES permits. The company was unable to provide appropriate documentation, and the shipment was turned over to NOAA.
2015	Mexico	Seattle-Tacoma International Airport	Air	Hong Kong	2.721 (49 bags)	Primarily silky, dusky, bull, scalloped hammerhead, and smooth hammerhead sharks.	U.S. Customs and Delta Air Cargo reported an in-transit shipment of dried shark fins. Contained federally endangered scalloped hammerhead sharks.

TABLE 5: U.S. LAW ENFORCEMENT CASES INVOLVING THE TRANSIT OF SHARK FINS THROUGH THE UNITED STATESⁱ

YEAR	COUNTRY OF ORIGIN	U.S. TRANSIT LOCATION	MODE OF TRANSPORT	DESTINATION	VOLUME (METRIC TONS)	SHARK SPECIES PRESENT IN SHIPMENT	CASE HIGHLIGHTS
2016	Mexico	Atlanta, GA, and Seattle-Tacoma International Airport	Air	Hong Kong	2.06 (60 parcels)	Hammerhead sharks	Shipment seized for CITES violations. Shipment had been labeled as "dried shark fins."
2016	Chile	Seattle-Tacoma International Airport	Air	Hong Kong	0.2928	Blue, mako, and elephant shark	Package was labeled as "dried fish maw" and was flagged for mislabeling, since it included shark fins. Exporter claimed it was an administrative error, appealed, and requested to recover the property. Petition for remission was denied. Shipment was slated to pass through both Atlanta and Seattle en route to Hong Kong. Unclear from documents provided if shipment stopped in Atlanta.
2016	Trinidad and Tobago	Norfolk, VA	Sea	Hong Kong	Not Specified	Not Specified	USFWS and CBP identified a container with an in-transit shipment that listed dried shark fins, dried fish maw, and dried sea cucumber from Trinidad and Tobago and suspected IUU and CITES/ESA violations. Agents determined that the shipment had been declared earlier but that the shipper pulled shipment and rerouted the shipment through Jamaica on different vessel. Agents suspected that queries into shipment contents prior to NOAA Office of Law Enforcement (OLE) involvement may have spurred rerouting away from United States.
2016	Mexico	San Diego, CA (Otay Mesa)	Not Specified	Hong Kong	0.49	Smooth hammerhead, mako, and blue shark	Immigration and Customs Enforcement (ICE) stopped the product due to questionable paperwork. OLE followed up with DNA testing to confirm the species present in the shipment. The shipment was mislabeled and was not accompanied by the proper permit. NOAA seized the shipment and posted a civil forfeiture notice, to which the shipping company did not respond. California District Court granted a motion for default judgment and ordered the forfeiture of all merchandise. Fins were destroyed by NOAA.
2017	Panama	Port of Oakland	Not Specified	Hong Kong	24.024	Not Specified	No additional details provided to NRDC
2017	Panama	Seattle-Tacoma International Airport	Air	Hong Kong	0.065 (2 boxes)	Scalloped hammerhead, blacknose, and others not identified	Contained federally endangered scalloped hammerhead sharks. No additional details provided to NRDC.

ⁱ Source: Documents provided by NMFS to NRDC in response to a FOIA request.

Four shark fin transit cases reported by conservation organizations and the media all contained fins from hammerhead sharks (see text box on page 18). Three shipments from Costa Rica to Hong Kong, which reportedly transited through Miami International Airport, contained fins from smooth hammerhead and scalloped hammerhead sharks. As mentioned earlier, both species are protected under CITES, and the scalloped hammerhead is federally listed as endangered under the ESA, making its export illegal in most circumstances.⁴⁹ A separate shark fin shipment from Panama transited through Houston by

cargo ship and was ultimately seized by authorities in Hong Kong.⁵⁰ The bill of lading specified that the shipment included four tons of dried seafood, including fish maws, shark fins, and shark tails. Hong Kong authorities discovered that the shipment included 880 kilograms (0.88 metric tons) of hammerhead fins commingled with the fins of other, non-listed shark species.

PUBLICLY REPORTED EXAMPLES OF ILLEGAL SHARK FIN SHIPMENTS THAT TRANSITED U.S. PORTS

Conservation organizations PRETOMA (based in Costa Rica) and Turtle Island Restoration Network (United States) issued a press release in April 2015 providing evidence of a Costa Rican company shipping hammerhead fins to Hong Kong via the United States. PRETOMA released documents related to three shipments of hammerhead shark fins totaling 1,087 kilograms (1.09 metric tons): a 220.85-kilogram shipment valued at US\$26,211 on November 27, 2014; a 411.2-kilogram shipment valued at \$52,857 on December 24, 2014; and a 455 kilogram shipment dated February 20, 2015. According to the groups, the export permit issued by Costa Rican authorities indicated that the fins would be shipped by U.S. airlines and transit through U.S. ports. In March and April of 2015, the groups wrote to the National Oceanic and Atmospheric Administration (NOAA) and the United States Fish and Wildlife Service (USFWS) to alert officials of these shipments and to ask for confirmation that these shipments of CITES- and ESA-listed species violated U.S. law. Moreover, these shipments occurred after the CITES implementation deadline for hammerhead sharks in 2014 but prior to Costa Rica's issuance of the necessary NDF in 2015, raising questions about whether the exports fully complied with the CITES treaty. It is unclear whether U.S. agencies were ultimately able to intercept the shipments.⁵¹

In 2016 a shipment labeled "fish maw, shark fin, shark tail" was exported from Panama to Hong Kong, transiting through Houston and carried by Cosco Shipping Lines. When the shipment arrived in Hong Kong, however, government officials seized a record 0.88 metric tons of illegal hammerhead shark fins. The bust illustrates how easily mislabeling can conceal illegal shark fin shipments and facilitate the export and transit of CITES-listed species.⁵²

These cases, along with three additional in-transit shipments reported anonymously, are included in Appendix II, Table AI.

In nearly all of these cases, the fins of protected shark species were commingled with fins of other sharks. This evidence supports anecdotal information provided to NRDC by shark experts: that legally protected shark species are common, and sometimes abundant, in shark fin shipments, and that the fins of listed sharks and non-listed sharks are often shipped together. For example, in November 2014, a shipment weighing one ton and containing 40 sacks of shark fins was stopped at the Juan Santamaria International Airport in Costa Rica. Officials checked three of the sacks and discovered fins of blue, bigeye thresher, silky, hammerhead, and oceanic whitetip sharks.⁵³ Such commingling, combined with the lack of species information on most shipping records, complicates efforts by border and wildlife agents to detect regulated species in international trade and ensure that shipments are legal.⁵⁴

While it is difficult to know exactly what percentage of in-transit shipments contain protected species or are otherwise illegal, there is certainly cause for concern, given the prevalence of CITES-listed sharks in the global fin trade and the high levels of catch of CITES-listed species in Latin America. The facts that many of the shark species most common in the fin trade are in decline, and that trade in many of these species is regulated under U.S. and international law, argue strongly for increased U.S. surveillance of transited products. This would ensure the legality of exported and imported goods and assist developing nations by supporting compliance with both domestic and international laws established to protect sharks from overexploitation.

ARE THOSE SHARK FINS LEGAL?

Beyond failure to meet CITES requirements, shipments of shark fins may be illegal under U.S. law for several other reasons—for example, when shipments are mislabeled, contain fins from sharks federally listed as endangered, or violate national shark fishing or trade bans, such as Costa Rica's hammerhead export ban. These legal issues are described further under Finding 4.

In addition, several of the species most common in the shark fin trade are subject to retention bans by regional fisheries management organizations in the Pacific, Atlantic, and Indian Oceans, meaning that these sharks should not be landed. Some countries, such as Ecuador, Mexico, and Honduras, as well as several countries in other regions of the world, have restricted, partially restricted, or banned shark fishing altogether in their domestic waters. The existence of these prohibitions raises questions about the legality of shark fins in international trade that emerge from such countries.⁵⁵ Furthermore, one-third of the shark species present in the Hong Kong trade are considered threatened by IUCN.⁵⁶ While threatened status does not equate to legal protections, the abundance of sharks in international trade that are considered at risk of extinction provides additional support for the need to monitor the trade.

FINDING 4: Despite both U.S. and international laws that regulate the shark fin trade, shark fin shipments that transit the United States are very rarely inspected or documented. In fact, U.S. fish and wildlife agencies have chosen to exempt the majority of shark species from relevant U.S. regulatory programs, which undermines domestic and international commitments to ensure the legality and sustainability of the shark fin trade.

All shark fins in transit are required to be properly labeled and legally acquired, not only under domestic and foreign law, but also in compliance with the terms of international agreements to which the United States is a party. The United States has clear authority to monitor and inspect shark products that transit its borders and to seize illegal products, regardless of whether they are brought into the United States for consumption or manufacturing.

U.S. authority derives from a number of federal statutes, including:

- the Lacey Act, which prohibits the import of fish and wildlife that is taken, possessed, transported, or sold in violation of U.S. state or federal laws, foreign laws, or international laws, and requires that any package containing fish or wildlife be accurately and plainly marked (which allows federal agents to intercept shipments traveling through the United States that are unlabeled or mislabeled);⁵⁷
- the Magnuson–Stevens Fishery Management and Conservation Act (MSA), which prohibits the import of fish taken in violation of the MSA or any fishing permit or international fishery agreement, or in violation of any foreign law, treaty, or international agreement to which the United States is a party;⁵⁸ and
- the Endangered Species Act (ESA), which generally prohibits the import of any endangered species and requires that imports of CITES-listed species be in accordance with the provisions of the treaty.⁵⁹ Both the ESA and the CITES treaty have listed several species of sharks and rays (Table 6).

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These laws create restrictions on shipments in transit by defining different classes of illegal seafood products and prohibiting import of these illegal products. They also intentionally define *import* broadly to include any “landing, bringing into, or introduction” into the jurisdiction of the United States, “*whether or not such landing, bringing, or introduction constitutes an importation within the meaning of the customs laws of the United States*” (emphasis ours).⁶⁰ These laws make it clear that the United States has authority over shipments in transit—including through territorial waters or the contiguous zone—even if these shipments are not entered into U.S. commerce. They also give U.S. federal law enforcement officers the authority to inspect in-transit shipments in order to identify shark fins that were taken or transported illegally, and to ensure that shipments comply with the many laws that protect fish and wildlife at the state, federal, and international levels.

TABLE 6: SHARK SPECIES PROTECTED BY THE ESA AND CITES^j

SPECIES	ESA LISTING	CITES LISTING
Argentine Angelshark	Endangered	None
Common Angelshark	Endangered	None
Sawback Angelshark	Endangered	None
Smoothback Angelshark	Endangered	None
Spiny Angelshark	Endangered	None
Daggernose	Endangered	None
Narrownose Smoothhound	Threatened	None
Striped Smoothhound	Endangered	None
Basking Shark	None	Appendix II
Whale Shark	None	Appendix II
Great White	None	Appendix II
Sawfish (Family Pristidae)	Endangered (5 species: Dwarf, Green, Largetooth, Narrow, Smalltooth)	Appendix I (7 species)
Porbeagle	None	Appendix II
Oceanic Whitetip	Threatened	Appendix II
Scalloped Hammerhead	Endangered (Eastern Atlantic and Eastern Pacific distinct population segment (DPS); Threatened (Central and Southwest Atlantic DPS and Indo-west Pacific DPS); Not listed (Central Pacific and Northwest Atlantic and Gulf of Mexico DPS)	Appendix II
Great Hammerhead	None	Appendix II
Smooth Hammerhead	None	Appendix II
Manta spp. (Manta Rays)	Threatened (1 species: Giant Manta Ray)	Appendix II
Mobula spp. (Devil Rays)	None	Appendix II
Thresher (Genus Alopias: bigeye, pelagic, common)	None	Appendix II
Silky	None	Appendix II
Shortfin Mako	None	Appendix II
Longfin Mako	None	Appendix II
Brazilian Guitarfish	Endangered	None
Common Guitarfish	Threatened	None
Giant Guitarfish (Family Glaucostegidae)	Threatened (1 species: Blackchin Guitarfish)	Appendix II (6 species)
Wedgefish (Family Rhinidae)	None	Appendix II

^j Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), “History of CITES Listing of Sharks (Elasmobranchii),” www.cites.org/eng/prog/shark/history.php (accessed October 2018). U.S. Fish and Wildlife Service, “Species Profile for Scalloped Hammerhead Shark (*Sphyrna lewini*),” <https://ecos.fws.gov/ecp0/profile/speciesProfile?spcode=E0CL> (accessed October 2018). NOAA Fisheries, “Shark Conservation,” www.fisheries.noaa.gov/national/international-affairs/shark-conservation (accessed October 2018).

To facilitate the inspection of shipments that may contain illegal fish or wildlife, U.S. federal agencies have developed regulatory programs to track and monitor trade. These programs are implemented by the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS). They include requirements for import/export licenses, declaration and clearance, and the use of designated ports.⁶¹ Seafood products for human consumption are generally excluded from these requirements, but not when the seafood products are derived from species listed under ESA or CITES.

These regulatory programs also codify the United States' obligations to regulate the international trade in species listed under CITES. For example, USFWS regulations prohibit the import, export, re-export, or international trade of any specimen of a species listed in Appendix I, II, or III of CITES, unless the proper permits are acquired.⁶² Because CITES is implemented under the ESA, the ESA's broad definition of *import* applies to in-transit shipments of CITES-listed species.⁶³ CITES does not require that intermediary nations issue permits for in-transit shipments.⁶⁴ However, both CITES and the U.S. implementing legislation make it clear that "Parties are to inspect, to the extent possible under their national legislation, in-transit shipments to ensure the presence of valid CITES documentation."⁶⁵

The U.S. implementing regulations further clarify that any shipment moving through the United States that contains CITES-listed species that are *also* listed as endangered or threatened under the ESA must be treated as an import and cannot be treated as an in-transit shipment.⁶⁶ This means that in-transit shipments of fins from sharks listed under CITES *and* the ESA must comply with the USFWS inspection program, including designated ports, declaration, and wildlife import license requirements.⁶⁷ They must be accompanied by the ESA permits required by the U.S. government. In addition, the United States must issue an import permit (for Appendix I species) and, if the shipment continues on from the United States, a CITES re-export certificate (for Appendix I or II species) and an export permit under the ESA.

For in-transit shipments, the most relevant component of the U.S. inspection program is the requirement that wildlife shipments pass through one of 17 designated ports.⁶⁸ Designated ports are staffed with dedicated wildlife inspection experts, which increases the probability of inspection and identification of illegal shipments. However, the designated ports requirement may not apply to many of the shark fin shipments that transit the United States. First, in-transit wildlife shipments are exempt from the designated ports requirement as long as the wildlife is not unloaded in the United States.⁶⁹ Second, even when the shipment is unloaded in the United States, seafood products do not have to go through designated ports unless they require a permit under ESA or CITES.⁷⁰ The United States, however, is not required to issue CITES permits for fish and wildlife products in transit unless the species is also listed under the ESA, which means that in-transit shark fin shipments need to pass through designated ports only if the shipment includes fins from ESA-listed sharks.⁷¹

These laws and regulatory programs make it clear that the United States has the authority to monitor, inspect, and, where appropriate, seize shark fins and other shark products that transit its borders en route to global markets. They also establish an additional responsibility for the United States to monitor in-transit shipments to ensure that such shipments are in compliance with CITES and do not facilitate the illegal wildlife trade. But perhaps most important, the regulatory program makes it clear that it is the *declared presence of ESA-listed species* that triggers U.S. agencies to inspect in-transit shark fin shipments. This points to a significant weakness in the way the U.S. government has structured its regulatory program: Of the 14 open-ocean sharks that are currently protected under CITES, many of which are also among the most common in the global shark fin trade, only two—the scalloped hammerhead and the oceanic whitetip—are listed under the ESA. This means that while many of the shark fin shipments that move through the country *should* be inspected, the vast majority are exempt from the U.S. regulatory requirements and are therefore rarely inspected at all.

This is problematic for several reasons. Because the majority of in-transit shipments are exempt from the U.S. regulatory requirements, they are not declared and may move through non-designated ports, which lack trained wildlife agents with expertise in identifying illegal shark fin shipments. This makes it easier for wildlife traffickers to smuggle the fins of protected sharks through the United States, regardless of their legality.

In addition, excluding the majority of CITES-listed shark shipments from the U.S. regulatory program undercuts our ability to inspect in-transit shipments to ensure the presence of valid CITES documentation, as required under the treaty. Under both the CITES treaty and the U.S. implementing regulations, the factor limiting inspections should be one of legal authority, not capacity. U.S. legislation allows inspection of all in-transit shipments, but the U.S. regulations, which allow most in-transit shark fin shipments to pass through U.S. ports without inspection, are not structured to support our obligations under CITES.

NRDC's interviews with U.S. agency personnel confirmed that current monitoring of in-transit shark fin shipments is not robust enough to ensure that the shipments are legal and accompanied by the proper permits. These personnel verified the following facts:

- The vast majority of seafood that passes through U.S. ports—whether in transit or entered into U.S. commerce—is not inspected.

- While U.S. agencies maintain the authority to inspect any and all shark fin shipments, regardless of whether products from protected species are declared, the likelihood of inspection is low, barring information indicating the possible presence of listed species. Most successful illegal shark fin investigations are based on intelligence.
- Although in-transit shipments are required to comply with U.S. laws and regulations, such shipments are very unlikely to be inspected, and it is “very possible” for CITES- and ESA-listed species in transit to pass through ports where trained USFWS agents are not present.
- Despite the United States’ legal obligations under CITES to confirm that the necessary permits are valid and present for in-transit shipments, most Appendix II species (i.e., most CITES-listed sharks) that transit the United States are not declared and are unmonitored.
- Monitoring in-transit shark fin shipments is not a high priority for the agencies in comparison with other highly trafficked wildlife species.

Agency personnel pointed to a suite of challenges that impede monitoring and inspection of in-transit shipments, including overly broad tariff codes that do not adequately reflect the contents of shipments, limited capacity to inspect shipments, and the short amount of time shipments remain in U.S. jurisdiction. Agents explained that they rely heavily on specific intelligence and even personal relationships to guide their inspections. But this approach is not sufficient to monitor and inspect the apparently fairly common transit of ESA- and CITES-listed species through U.S. ports of entry. Moreover, based on NRDC’s research, it is not clear whether there exists a formal system for gathering such intelligence or a formal process for coordination among FWS, NMFS, and Customs and Border Patrol (CBP) to assess shipments that are at high risk of containing regulated shark species—or if they do exist, how effectively they are working.

Recommendations

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Enforcement officers use specially trained dog to sniff for shark fins in Seattle.

NRDC recommends a number of domestic and international strategies to increase monitoring of the shark fin trade in order to ensure its legality and protect sharks. Because the shark fin trade—and the trafficking of protected shark species—is a global problem, actions by international bodies and major shark-fishing and shark fin-trading nations will be critical to addressing the challenges outlined in this report. The United States should play a pivotal role in this effort, both by increasing monitoring, inspection, and enforcement relevant to in-transit shark fin shipments and by supporting similar efforts by other nations.

A strong U.S. response has the potential not only to stem the flow of illegal shark products across U.S. borders but also to establish effective enforcement models that will be adapted and used by other nations to halt the transit and trafficking of illegal shark products. In addition, increased vigilance by the United States and other developed nations to identify illegal shipments and take action against bad actors would lend much-needed support to developing nations that are striving to comply with domestic laws and international agreements to protect sharks—and ultimately would strengthen worldwide efforts to end the unsustainable trade in sharks.

RECOMMENDATIONS FOR U.S. LEADERSHIP

1. The United States should require that *all* shark fin shipments in transit be declared to Customs, pass through designated ports, and be subject to inspection. By requiring that all shark fin shipments comply with the federal regulatory inspection and monitoring program—whether or not the import/export documents specify that CITES- or ESA-listed species are present—the United States can leverage the skills of its trained experts to identify products from protected shark species and verify that shark shipments are legal and properly permitted. The United States should also direct additional resources to NMFS and USFWS to expand the agencies' capacity to monitor and inspect shark fin shipments.

In particular, given the global significance of the shark fin trade from Latin America—and the fact that this region is known to use U.S. ports to get shark fins to the international market—the United States can play a vital role in ensuring that the shark fin trade that passes through its borders is legal and sustainable. Increased U.S. surveillance of in-transit shark fin shipments would bolster compliance with U.S. laws and would directly support international efforts to halt the illegal trade in shark products.

2. The United States should strengthen formal partnerships between CBP, NMFS, USFWS, and state agencies in order to identify shark fin shipments proactively and to increase seizures of illegal shipments as they cross U.S. borders. These agencies should jointly develop stronger risk-based analyses and systems to identify shark fins entering U.S. jurisdiction and prioritize enforcement against illegal shipments. Such formal partnerships are emerging as a best practice among experts seeking to address IUU fishing and wildlife trafficking. In addition, some states, such as California, have entered into joint enforcement agreements with the federal government to coordinate inspection and enforcement efforts. Congress should leverage and fund these agreements to provide additional resources for combating the illegal shark fin trade.

3. Congress should adopt a federal shark fin trade ban. Bills introduced to the U.S. Congress in 2015 and 2017 would ban the sale and possession of most shark fins. These bills are fundamentally important to reducing U.S. participation in the unsustainable, largely unmanaged, and often illegal international shark fin trade, and they should be passed as quickly as possible. Additional action will be needed, however, if these bills do not ultimately prohibit the transit of shark fins through U.S. ports of entry. A complete ban on shark fin sales and exports, including transit, would eliminate the U.S. role in the global shark fin market entirely and send a strong message to the global community about combating IUU shark fishing and the unsustainable trade. It would also ease the burden on U.S. agencies to distinguish legal from illegal shark products.

Importantly, even if a U.S. ban makes the transit of fins through the U.S. illegal, implementing the preceding recommendations will remain a priority. There is a high likelihood that shark fins will continue to be shipped to and through the United States, regardless of any new federal law. So there will still be a need to identify illegal shipments, enforce against illegal activity, and provide strong models for monitoring and enforcement to advance international efforts.

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4. The United States should make shark conservation a top priority within the tuna regional fisheries management organizations (RFMOs) to which it is a party, with particular emphasis on driving compliance with shark-related conservation and management measures that these bodies have adopted yet struggle to enforce effectively. The burden of improving shark management falls to all RFMO member states, and the United States holds only one vote in a consensus-based system. Still, the United States can take the lead on necessary changes by pressuring member states to enforce the shark-related conservation and management measures (CMMs) to which these international bodies have agreed. This includes enforcing finning bans and retention bans for certain shark species, insisting that members submit shark catch data as required by the RFMOs, and making public the compliance reports that document violations of the CMMs.

Information about shark fishing violations would provide an important backdrop for Customs, USFWS, and NMFS as they assess whether fins in transit were legally obtained and as they develop risk-based systems for identifying illegal shark fins. In addition, the U.S. High Seas Driftnet Fishing Moratorium Protection Act offers a unique opportunity for the United States to drive international compliance with RFMO measures. This act directs the United States to identify, consult with, and ultimately sanction nations whose vessels illegally fish for sharks, a process that can include banning imports of related seafood products from offending nations.

RECOMMENDATIONS FOR INTERNATIONAL LEADERSHIP

The global shark conservation community is already pursuing priorities that are fundamental to addressing the challenges outlined in this report. For example, conservation groups are:

- listing additional high-risk shark species under CITES to extend the protections of this treaty to these sharks, many of which are common in the fin trade;
- pushing the World Customs Organization to adopt species-specific tariff codes for sharks to support better monitoring of the shark trade; and
- supporting international efforts to build capacity within developing nations to manage shark fishing and shark trade, which is fundamental to addressing unsustainable and illegal exploitation of sharks.

International leaders (including the United States) should support the global shark conservation community in these efforts. Specifically, they can prioritize these recommendations:

- 1. Parties to CITES should strengthen resolutions on shark conservation and on transit and transshipment in order to increase monitoring of in-transit shark fin shipments globally.** Relevant CITES resolutions should be amended to urge parties to require that all in-transit shipments of shark fins be declared to the customs agencies of intermediary countries and pass through designated ports. Amendments should also urge Parties to inspect these shark fin shipments for the presence of CITES-listed species. These amendments would enable nations with more resources to support developing nations that struggle with adequate capacity for monitoring, inspection, and enforcement—including many of the top shark-fishing and shark fin-trading nations—in their efforts to comply with the CITES treaty.
- 2. The Latin American nations that contribute substantially to the international shark trade, including those nations found to transit fins through the United States, should prioritize enforcement of both domestic laws and international agreements that govern shark fishing and trade within their jurisdictions. In particular, these nations should strive to ensure compliance with CITES requirements to report trade in shark products and verify that it is sustainable.** In some cases, flagrant violations of domestic shark finning bans, shark fishing quotas, or shark fin export controls are well known to authorities, as illuminated through NRDC's investigation, and yet they continue largely unchecked. While capacity is a challenge, policy leaders in these nations must prioritize compliance and enforcement to combat illegal and unsustainable fishing and trade in sharks. The United States has made important contributions to building this capacity in many Latin American nations and should continue to do so.
- 3. Signatory nations to the international tuna fishing treaties should make it a priority to manage and conserve shark populations as pursuant to these treaties.** In particular, member states should enforce compliance with the shark-related conservation and management measures (CMMs) to which they have agreed under RFMO treaties. For example, increased compliance with shark-related CMMs within the Inter-American Tropical Tuna Commission (IATTC), which manages tuna fishing in the Eastern Pacific Ocean, would directly address IUU shark fishing among the nations found to transit shark fins through U.S. ports. Similar efforts in other RFMOs would help to spotlight illegal shark products transiting other nations as well.

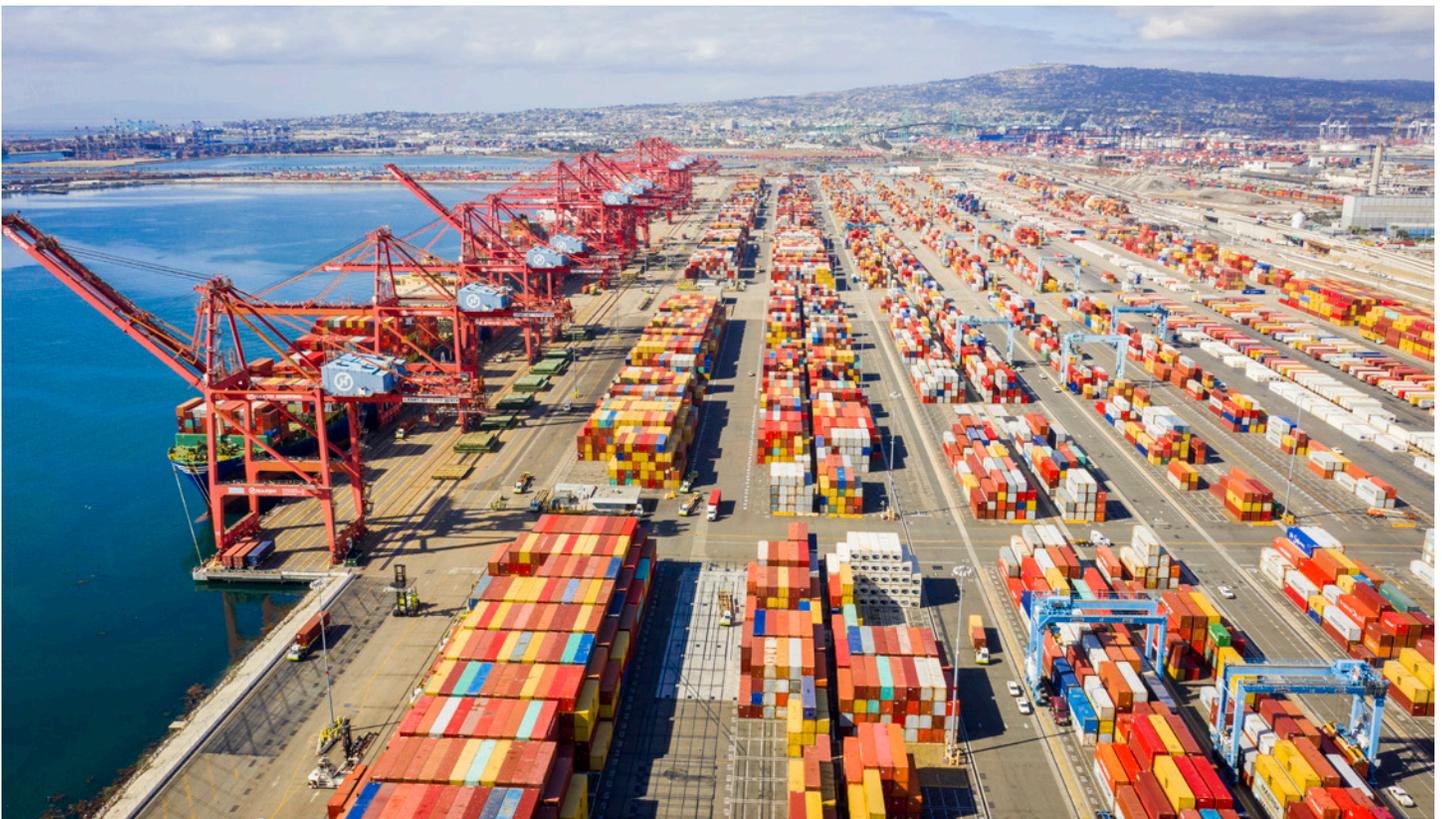
Conclusion: Leveraging U.S. Authority to Combat the Illegal Shark Fin Trade

NRDC set out to understand the role the United States plays in the movement of shark fins from source countries to the major international shark fin trade centers in Asia. Our investigation uncovered ample evidence that the United States serves as a transit hub for the global shark fin trade, particularly from Latin America, including trade in sharks that are protected under U.S. and international law. But most of the shark fin trade transiting the United States remains unmonitored and unchecked. By failing to monitor the shipments that cross its borders, the United States is facilitating the trade in shark fins from one of the world's most important shark fin-producing regions and enabling the unsustainable and often illegal trade to continue to push many of these important apex predators closer to the brink of extinction.

Many of the nations transiting fins through the United States face significant hurdles to ending illegal shark fishing and controlling the shark fin trade within their jurisdictions. They may lack the capacity to assess shark populations, to implement and enforce shark fishing laws, and to monitor trade. Many also struggle to enforce fisheries and trade laws, including compliance with vital international conventions such as CITES. For all these reasons, the shark products that enter global trade from these nations may be at best poorly regulated and at worst illegal. The United States—with its strong public commitment to ending illegal fishing and wildlife trafficking, its strong legal framework, and its far greater capacity to monitor and enforce global agreements—stands between these Latin American nations and the global market for illegal fins.

With roughly a quarter of sharks and shark-like fish at risk of extinction, it is crucially important that the international community act to improve management of shark fisheries and combat unsustainable and illegal trade in shark fins, and the United States has a particularly important role to play. As a leader in sustainable fishing practices and home to one of the largest seafood markets in the world, the United States should be a model for ensuring the legality of the global shark trade. Yet, despite this country's indisputable authority and strong legal framework to ensure the legality of wildlife products in transit, our current regulatory program is not adequate to monitor in-transit shark shipments, uphold our obligations under CITES, enforce our own Endangered Species Act, or halt the illegal shark fin trade that crosses our borders. If the United States is to fulfill its domestic and international commitments to conserving sharks and stamping out the illegal trade in these vulnerable species, this must change.

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Appendix I: Research & Analysis Conducted

To evaluate the largely unmonitored transit of shark fins through the United States, we relied on a combination of independent, original research conducted by NRDC and our analysis of studies conducted and information gathered by other organizations.

NRDC's independent research focused on the following sources:

1. U.S. shipping records available through Penta-Transaction, a private trade database service, covering the period 2010 to 2017;⁷²
2. Records provided by the National Marine Fisheries Service (NMFS) in response to a FOIA request for records relevant to the transit of shark fins through the United States; and
3. U.S. agency reports regarding illegal fishing and shark finning.⁷³

NRDC obtained shipping records from Penta-Transaction for shipments that met all of the following requirements: They arrived into or transited through U.S. ports of entry (including marine terminals, airports, and border crossings); were destined for Hong Kong; and had documentation that shark fin was contained in the shipment—either a bill of lading listing one of several official shark fin tariff codes or a product description that included the term “shark fin.” We limited our search to shipments destined for Hong Kong because it is the main importer of shark fins in the world and because doing so would give a representative sense of the global shark fin market. We then analyzed these records to collect information about countries of origin, ports of transit, and the volume and content of shipments. We also reviewed records provided to NRDC by NMFS in response to our FOIA request and identified additional instances in which shark fin shipments had transited the United States, again collecting information about exporting countries, ports of transit, final destination, and the volume and content of shipments, including species-specific information when available. We also reviewed reports published by NMFS regarding shark finning and IUU fishing and gleaned information related to the transit of shark fins through U.S. ports.

NRDC then analyzed studies and data from conservation organizations, news media reports, and documents relevant to the transit of shark fins through the United States to identify instances of transit, countries of origin and destination, transit points, and the volume and content of shipments, including species-specific information when available. We reviewed the following sources:

1. A recent study conducted by MarViva, a Latin American organization working on the conservation and sustainable use of coastal and marine ecosystems in the Eastern Tropical Pacific, examining the dynamics of shark fin exports from Costa Rica and Panama;⁷⁴
2. Shark fin trade records provided by Oceana Perú, an ocean conservation organization, indicating shark fin exports transiting through the U.S.;
3. Independent investigations by the *Miami Herald*;⁷⁵
4. Accounts of shark fin transit through U.S. ports in media, social media, and reported by PRETOMA, a Costa Rican organization;⁷⁶ and
5. In-transit shipping records, shared by an anonymous source, indicating aerial transit through multiple U.S. ports.

Because we drew from multiple sources to conduct this research, we took pains to ensure we were not double-counting shipments in our analysis. To do this, we looked for unique identifying characteristics of the shipments we found (dates, country of origin, transit location, reported volume, mode of transport) to assess which shipments were unique and which might appear in two different sets of data. Where we were uncertain if shipments were unique or duplicates, we treated them separately. We then developed minimum and maximum ranges of shark fins transited, reflecting both potential double-counting and ambiguities about how much shark fin was contained in some of the shipments.

In addition to examining shipping records, we spoke with more than 25 international experts to better understand the scope and frequency of shark fin transit through U.S. ports. These experts included shark biologists and conservationists as well as representatives from a number of U.S. agencies and international organizations located in the United States, Mexico, Central America, Peru, Ecuador, and Hong Kong. Conversations focused on shark fin exports and trade; shipping routes, patterns, and trends; shark fishing and shark-fin trade dynamics; and ways in which shark fishing and trade, particularly in Latin America, intersects with U.S. efforts to monitor shark products that cross its borders. Some of the experts spoke to us on the condition of anonymity. The information shared by these experts both assisted our analysis and underscored how poorly shark fin trade routes—and transit patterns in particular—are understood.

To understand the relative importance of the nations found to transit fins through the United States as providers of fins to global markets, we reviewed published literature and commissioned an assessment of the relative contribution of these nations to the global shark fin trade. BLOOM Association, an ocean conservation organization in Hong Kong, conducted an analysis of Hong Kong's Census and Statistics Department Database on the contribution of Latin American countries to Hong Kong's international shark fin market.⁷⁷ The data presented in this white paper focus on those Latin American countries for which NRDC found evidence of transit in our review of shipping records and other documents. It is possible that other nations transit fins through the United States but were not identified through NRDC's research.

We also used the Food and Agriculture Organization's Fisheries and Aquaculture Statistics to estimate the global capture of the most common shark species in the shark fin trade, as identified in a 2018 study, and to assess the contribution of the Latin American countries found to transit shark fins through the United States.⁷⁸

Finally, in an effort to understand the United States' authority over in-transit shipments, we conducted a review and analysis of relevant U.S. and international laws. To determine how these laws are applied on the ground and to gain insight into current U.S. processes for monitoring seafood imports into the United States, including products in transit, NRDC conducted interviews with key personnel from a variety of agencies. These included Customs and Border Patrol, the Food and Drug Administration, the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, and the California Department of Fish and Wildlife.

Appendix II: Evidence of Shark Fin Transit Through the United States

Table A1 details the evidence of transit through U.S. ports that NRDC uncovered through this investigation. This evidence came from a number of sources that provided inconsistent information about the details of the shipments (e.g., weights of fins contained in the shipment, status of fins [such as dried versus frozen], species-specific information, ports of entry, time period for which data were available). Because the data sets were not uniform in the information they included, it was not always possible to determine whether specific shipments were also reported in another data set. For example, it was not possible to determine if the in-transit shark fin shipments reported by the Miami Herald were also captured by NRDC’s analysis of U.S. shipping data.

We list the in-transit shipments for which we found evidence and include the shark fin weights for each data set. We then total those weights in three ways in order to estimate the actual volume of shark fins that transited through U.S. ports during the study period. “Adjusted Minimum Weight” shows the total bare minimum weight of in-transit shark fin shipments we identified, excluding some shipments from Costa Rica and Panama that we could not verify as being unique. “Unadjusted Minimum Weight” shows the total metric tons of all shipments where the weight of the shark fins was reported on the bills of lading, assuming all shipments listed in Table A1 were unique. “Maximum Weight” includes all shipments from the data sources listed in Table A1 plus the entire weight of some additional shipments we identified that included shark fins among other products but did not specify the precise weight of shark fins within the shipment. These total shipment weights are not listed in Table A1. We included the entire weight of these shipments in Maximum Weight in order to show a possible outer limit for the metric tons of in-transit shark fin shipments that NRDC identified through its investigations. All three of these totals are limited to the weights of shipments that NRDC found through its investigation only. Because several of the data sets had information for only a few years within our study period, these totals do not capture all shipments through U.S. ports between 2010 and 2017.

TABLE A1: EVIDENCE OF SHARK FIN TRANSIT THROUGH THE UNITED STATES					
DATA SOURCE	PERIOD	COUNTRY OF ORIGIN	DESTINATION	COUNTRY TOTAL (METRIC TONS)	GRAND TOTAL (METRIC TONS)
U.S. Shipping Records (NRDC) ^k	2011–2015	Ecuador	Hong Kong	167.87	196.99
		Mexico	Hong Kong	23.78	
		Trinidad and Tobago	Hong Kong	1.11	
		Costa Rica	Hong Kong	2.00	
		Suriname	Hong Kong	2.22	
U.S. Public Records and Reports ^l	2015–2018	Guatemala	Hong Kong	1.01	30.67
		Mexico	Hong Kong	5.27	
		Chile	Hong Kong	0.29	
		Panama	Hong Kong	24.09	
Costa Rican and Panamanian Shipping Records (MarViva) ^m	2012–2017	Costa Rica	Hong Kong	220.60	380.67
	2010–2017	Panama	Hong Kong	139.13	
		Panama	Canada	6.26	
		Panama	China	14.68	

TABLE A1: EVIDENCE OF SHARK FIN TRANSIT THROUGH THE UNITED STATES

DATA SOURCE	PERIOD	COUNTRY OF ORIGIN	DESTINATION	COUNTRY TOTAL (METRIC TONS)	GRAND TOTAL (METRIC TONS)
Peruvian Shipping Records (Oceana)	2010–2012	Peru	Hong Kong	3.09	3.09
Other Transit Reported ⁿ	2014–2015	Costa Rica	Hong Kong	1.09	8.05
	2014	Nicaragua	Hong Kong	0.89	
	2015	Guatemala	Hong Kong	0.67	
	2015	Mexico	Hong Kong	4.52	
	2016	Panama	Hong Kong	0.88	
<i>Miami Herald</i> ^o	2015–2017	Costa Rica	Asia	82.00	81.65
Total Transited Fins Identified—Adjusted Minimum Weight (adjusted for potential duplicate records across the different data sets)					591.40
Total Transited Fins Identified—Unadjusted Minimum Weight (assumes there are no duplicate records across data sets)					701.11
Total Transited Fins Identified—Maximum Weight (includes whole shipment weight for all evidence presented in this white paper)					859.23

k These data come from NRDC’s analysis of U.S. shipping records from the private shipping database Penta-Transaction. These data include only those cases in which shark fin weight was explicitly noted in the shipping records. Several of the shipping records indicating that shark fins were present within a shipment did not specify the weight of the shark fins.

l These data come from records provided by NMFS to NRDC in response to our FOIA request, as well as two public reports to Congress: the *2016 Shark Finning Report to Congress and Improving International Fisheries Management, Jan. 2017 Report to Congress*. FOIA documents revealed eight cases of transit; however, the total included in Table 1 reflects only six cases, as the other two did not specify weights.

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