

THE GLOBAL TORTOISESHELL TRADE

April 2020



ACKNOWLEDGEMENTS

At the heart of our work is the critically endangered hawksbill sea turtle, at risk of extinction due to the demand for its beautiful shell.

Our mission at Too Rare To Wear is to end the demand for hawksbill products by collaborating with conservation organizations and the tourism industry to inform travelers of the plight of the hawksbill and to educate them on how to identify and avoid hawksbill products when traveling abroad.

We would like to thank the 150+ members of our coalition, including tour operators, conservation organizations, and others who are helping us reach travelers and the general public around the world. We would also like to thank all of the experts who contributed to the research, including those who helped with our 2017 report *Endangered Souvenirs*, and those who contributed to this report. A full list of contributors can be found on page 83.

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COUNTRIES PROFILED IN THIS REPORT

CENTRAL AMERICA:

- Nicaragua ●
- Costa Rica ●
- Honduras
- El Salvador
- Belize ●●
- Panama ●
- Guatemala ●●

CARIBBEAN:

- Cuba ●
- Haiti ●●
- Grenada ●
- Dominican Republic ●●
- Trinidad / Tobago ●●

SOUTH AMERICA:

- Colombia ●
- Venezuela
- Ecuador ●
- Peru ●

NORTH AMERICA:

- United States
- Mexico ●

ASIA:

- China
- Indonesia ●
- Viet Nam
- Japan ●
- Malaysia ●
- Philippines ●
- Cambodia ●
- Singapore ●
- Taiwan ●
- Laos ●
- Thailand ●

AFRICA:

- Mozambique
- Madagascar
- Zanzibar ●
- Egypt ●
- Tanzania ●
- Seychelles ●
- Angola ●

OCEANIA:

- Solomon Islands
- Papua New Guinea ●●
- Palau ●
- Tonga ●

KEY:

- A (●):** Additional research recommended
- N (●):** New unpublished research
- M (●):** Minor / anecdotal sales
- L (●):** Legal domestic market



Photo Credits: RP Van Dam 4

EXECUTIVE SUMMARY

Estimates of adult female hawksbills remaining worldwide range from 15,000-25,000 and it is classified as 'Critically Endangered' throughout its range by the International Union for Conservation of Nature (IUCN). Recent research by the Monterey Bay Aquarium estimated a total of nine million hawksbills exported during the international trade from the mid-1800's to the late 1900's, making this trade the biggest reason for their decline. The legal international trade ended in 1992 when Japan dropped their exception under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) but the illegal trade continues in many countries nearly 30 years later.

Synthesizing new research in eight countries with recent reports by Too Rare To Wear, CITES, and others, this report takes the first global look at this trade in decades with information on the trade in nearly 50 countries. Our findings include ten countries that still have a significant domestic trade, thirty countries that have a minor domestic trade, and seven countries where more research is required.

Over the past three years, through the combined research cited in this report, an estimated 46,448 individual tortoiseshell products have been counted for sale in person and online. Evidence suggests that the online trade is growing and, in some countries, may exceed in-person sales. In addition, though the research is difficult to compare over time, the domestic trade appears to be declining in at least five countries.

Too Rare To Wear is a coalition of more than 150 conservation organizations and tourism companies working to end demand for tortoiseshell products. We conduct research into the trade, educate travelers how to recognize and avoid these products, and work to create new tools to support enforcement and outreach. Too Rare To Wear is a campaign of SEE Turtles, a non-profit sea turtle conservation



REPORT HIGHLIGHTS



At least 40 countries where the trade still exists. Since 2017, 17,075 turtle products have been sold in stores.



New research on the trade completed in 7 countries



Gaps in knowledge on this trade remain in at least 7 countries



The online trade in this products may now surpass the in-person trade with more than 25,000 pieces for sale identified. Since 2017, 29,373 turtle products have been sold online.



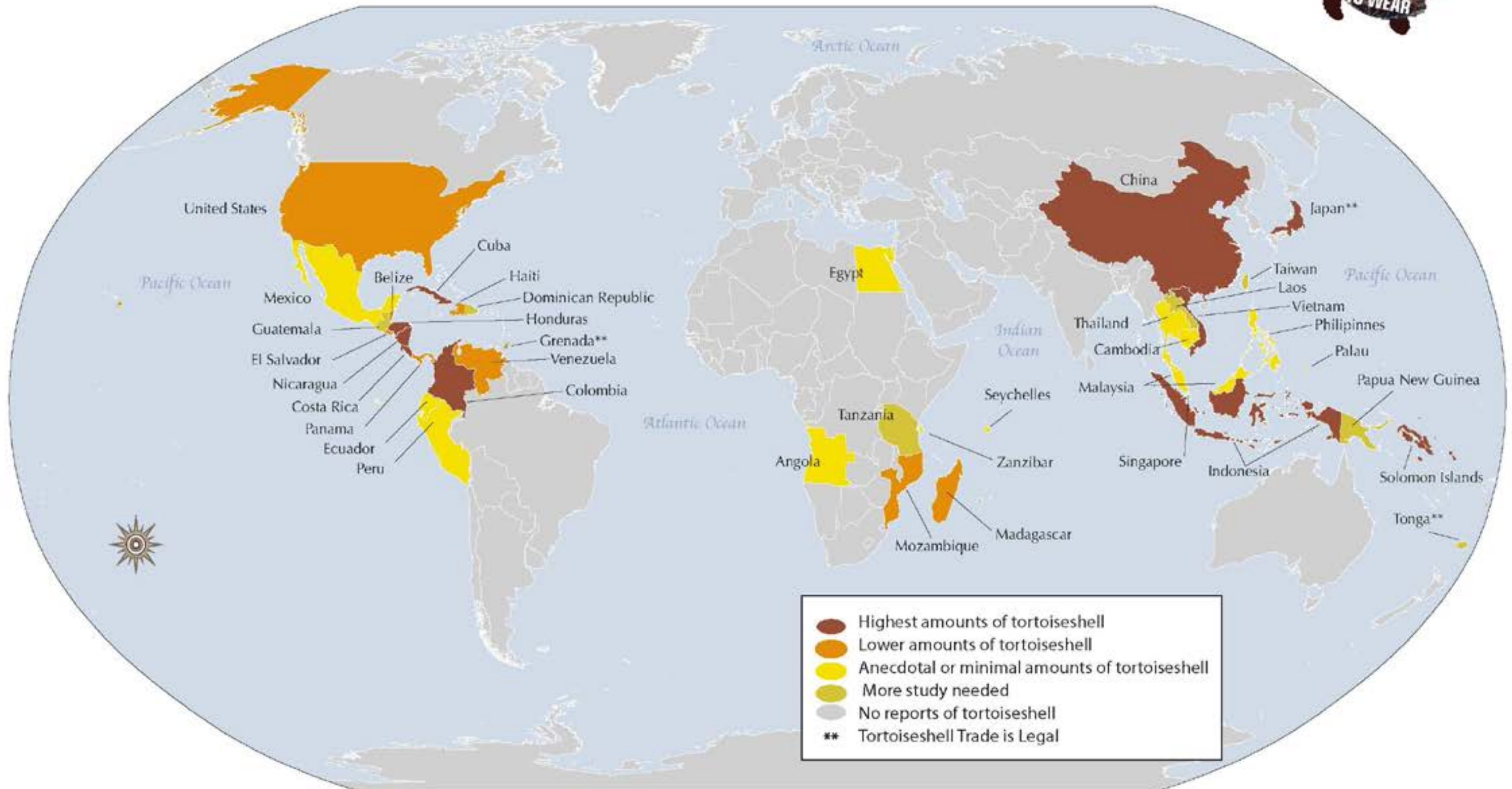
The trade appears to be declining in at least five countries, showing that advocacy and enforcement can effectively reduce this trade

COUNTRY	# OF PRODUCTS OBSERVED SINCE 2017
Nicaragua	9,295
Colombia	4,325
Costa Rica	1,092
Panamá	656
Indonesia	424
El Salvador	372
Mozambique	200
Viet Nam	199
Cuba	194
Grenada	108
Honduras	47
Zanzibar	45
Guatemala	36
Belize	26
Venezuela	21
Tobago	20
Dominican Republic	15
TOTAL	17,075

ONLINE SALES	# OF PRODUCTS OBSERVED SINCE 2017
Indonesia	29,326
Latin America	47
TOTAL	29,373

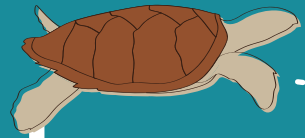


Global Tortoiseshell Trade Map



- Highest amounts of tortoiseshell
- Lower amounts of tortoiseshell
- Anecdotal or minimal amounts of tortoiseshell
- More study needed
- No reports of tortoiseshell
- ** Tortoiseshell Trade is Legal

HISTORY OF THE TORTOISESHELL TRADE



45~AD

Julius Caesar held warehouses of Tortoiseshell in Alexandria



IX

Traded by Arabs throughout the Indian Ocean



1500-1700's

Tortoiseshell trade expands globally driven by European Colonization and trade by Portugal, France, England & the Netherlands



1700's

Japan's bekko artisans established in Nagasaki



1800-1900's

Trade in Central America & Caribbean intensifies



1993

Japan establishes zero quota to avoid an embargo by the US & Cuba reduces annual fishery quota from 5,000 to 500 in response



1990

Japan reduces quota to 18,870 turtles per year



1987

Report by Milliken and Tokunaga documents continued trade between CITES countries without proper documents



1980

Japan joins CITES & takes exception and reduces quota to 28,300 turtles per year



Late 70's

45 countries trade tortoiseshell, with Japan importing an average of 37,700 turtles per year



1977

Hawksbills added to Appendix I of CITES



1975

Convention on International Trade of Endangered Species (CITES) Treaty goes into force



1994

Japan drops CITES reservation



1997

Cuba proposes to sell stockpile to Japan & continue international trade through CITES, but the proposal failed



1998

Seychelles & Zanzibar acquire tortoiseshell stocks from artisans and burns them to demonstrate their commitment to ending the trade



2000

Cuba proposes again to sell stockpile to Japan & continue international trade through CITES, but the proposal failed



2007

Cuba institutes voluntary moratorium on its hawksbill fishery, though the country still maintains its reservation & stockpile



2019

Illegal tortoiseshell trade continues in at least 40 countries and the legal trade remains legal in at least 4 countries or territories.

INTRODUCTION

For millennia, the hawksbill sea turtle (*Eretmochelys imbricata*) has been a valuable commodity, prized for the scutes which adorn its shell. The large scales (or plates) covering the shell are richly colored in a kaleidoscope of amber, gold, and brown, which help camouflage the hawksbill in its preferred coral reef habitat. When the scutes are polished, an even richer color palette is revealed, and they are used to create a variety of objects. Before plastic was invented, hawksbill shell was the preferred material for a huge range of products due to its malleability, attractiveness, and availability.

The polished material is fashioned into various 'tortoiseshell' items such as bracelets, rings, guitar picks, combs, and other souvenirs and luxury items. Whole stuffed (taxidermied) turtles are also used as wall hangings in some countries. The hawksbill is unique among the seven species of sea turtles in that it is the primary one targeted exclusively for its shell (though occasionally products and whole carapaces of other species are also sold, mostly being green turtles, *Chelonia mydas*.)

Despite the availability of these same products made from modern-day synthetic materials, the hawksbill continues to be harvested and traded across international borders. The widespread and persistent illegal trade of sea turtles is part of the global war on wildlife. The trade of wildlife and their parts is estimated to be worth a staggering US \$20 billion annually, the 4th most lucrative illegal trade after drugs, human trafficking, and the arms trade according to a 2012 report by WWF.

A 2019 study published by the Monterey Bay Aquarium in 'Science Advances' titled "The historical development of complex global trafficking networks for marine wildlife," reviewed data from the Atlantic, Pacific, and Indian Oceans. The researchers concluded that the previous estimate of approximately 1.4 million hawksbills exported to Japan between 1950 and 1992 was



a gross underestimate. Using information from Japanese customs archives over a 150-year period between 1844 and 1992, the authors estimate that approximately 9 million hawksbills were traded globally. They believe this figure could be lower than the actual number due to information gaps in the Atlantic and Indian Oceans. Japan represented roughly 80 percent of the worldwide importation of hawksbill shells over this time.

The hawksbill has also been protected by the CITES since 1981. CITES is an international agreement between governments, referred to as parties, that monitors the international trade of species to ensure their survival is not threatened by overexploitation. Hawksbills are listed under Appendix 1, which includes species that are threatened with extinction and are the most endangered of the CITES-listed species. International trade in Appendix 1 species is prohibited except in exceptional cases where authorization is granted for scientific research.

More than forty years after hawksbills were added to CITES Appendix I, and twenty-five years after Japan ended its exception in 1992, making the international trade fully illegal around the world, the tortoiseshell trade continues to threaten the hawksbill sea turtle. The research highlighted in this report shows the trade remains strong in at least ten countries, still exists in at least another thirty countries, and that the domestic trade remains legal in at least three countries despite the clear threat to the species.

HAWKSBILL STATUS

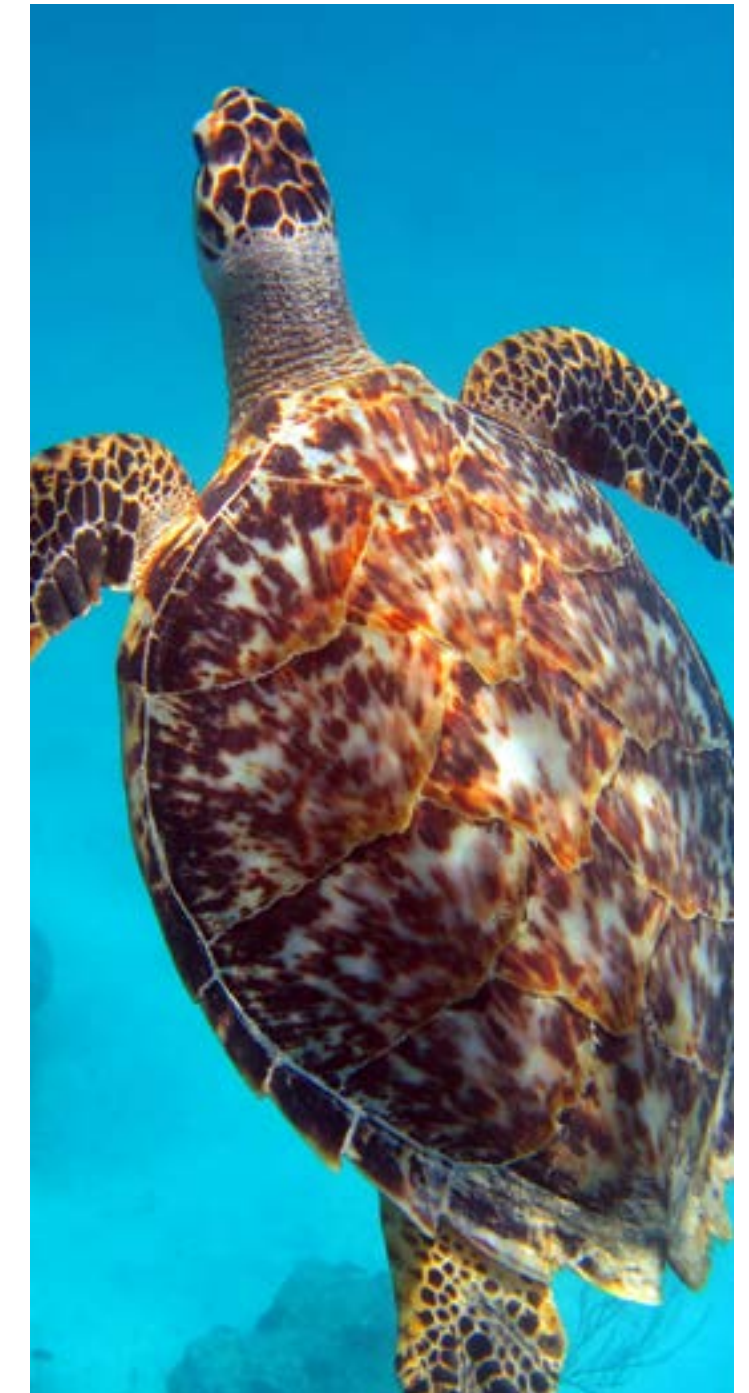
The hawksbill is one of the two most endangered of sea turtle species. Estimates of adult female hawksbills remaining worldwide range from 15,000-25,000 and it is classified as 'Critically Endangered' throughout its range by the IUCN. The IUCN Red List defines Critically Endangered as 'considered to be facing an extremely high risk of extinction in the wild'. Though some hawksbill populations are increasing due to conservation efforts (particularly in Mexico and Panama), and despite international legal protections including CITES and the Inter-American Convention for the Protection and Conservation Sea Turtles, hawksbill populations continue to decline in many countries due to the continuing demand for tortoiseshell products.

If the recent Monterey Bay Aquarium research is accurate, it would reflect a much more dramatic decline than the threshold of a 90 percent decrease over three generations to qualify for critically endangered status. Note: it has been about 35 years since the reported end of the peak of the hawksbill trade, which is roughly the time it takes this species to reach maturity. This fact could explain some of the recent increases in nesting observed at beaches in Mexico, Panama, and elsewhere.

Though harvest of the hawksbill for its shell continues to be its greatest threat, it faces many others, such as habitat degradation and loss of coral reefs due to climate change impacts and ocean acidification. Entanglement and ingestion of marine debris, loss of nesting habitat due to sea level rise and coastal development, offshore drilling, and pollution are also obstacles to the hawksbill's continued existence.

The decline of the hawksbill around the world has had significant impacts on ocean ecosystems. It is estimated that one turtle can consume more than 1,000 pounds of sponges per year. By consuming sponges, hawksbills play an important role in the reef community, facilitating coral growth; without

them, sponges can overgrow corals and suffocate reefs. Coral reefs provide a wide variety of environmental services including aiding fisheries, providing habitat for a wide variety of species, protecting coastal communities from storms, and as economically important tourism attractions. According to a report by the Costanza, et al (1997) coral reefs generate an estimated \$375 billion in economic benefits each year.

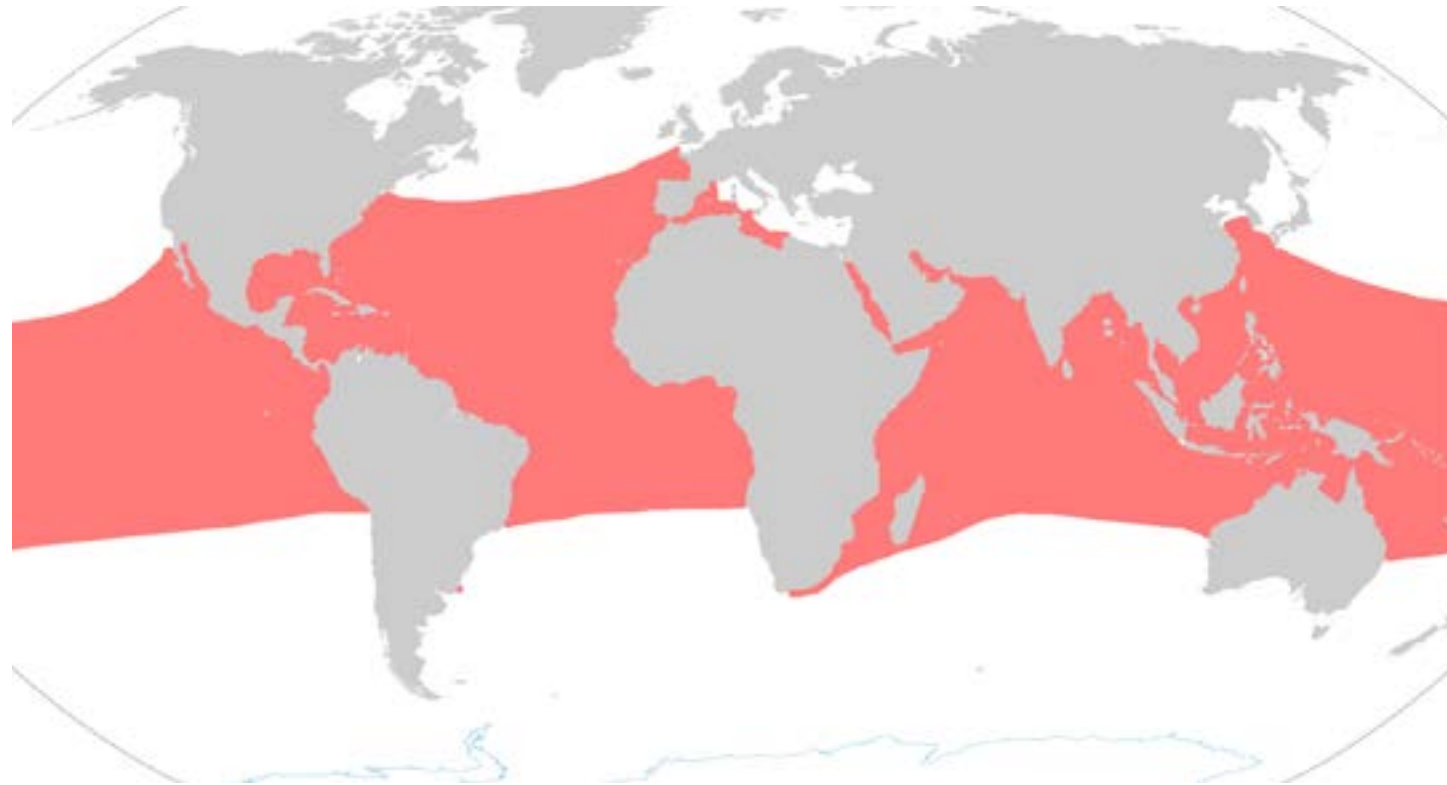


USE OF TORTOISESHELL PRODUCTS

What the tortoiseshell trade looks like depends on which region and country it occurs in. The primary use of hawksbill shell is to create souvenirs for travelers; in some countries international travelers are the primary market (for example, Colombia) while in others, domestic travelers are the main consumers (for example, Indonesia and Nicaragua). A wide variety of tortoiseshell products are sold as souvenirs, primarily jewelry such as earrings, bracelets, and necklaces. In some places like Viet Nam, the products are believed to have medicinal properties.

In some places, the shell is fused with gold or other metals to make elaborate headwear. This is seen in Indonesia, where the island of Bali is known for these types of products, as well as in Panama, where these are traditionally used during Carnival celebrations. In some regions, primarily Latin America, a large portion of the trade is for spurs for cockfighting, still a strong tradition in countries like Colombia and Panama. Generally, the scutes are processed into specific products, though in some places they are sold as whole carapaces, often polished to a shine and sold as decorations (specifically Haiti, Viet Nam, and China).

HAWKSBILL DISTRIBUTION MAP



METHODOLOGY & FORMAT

This report pulls together new and recent (within the past ten years) research on the tortoiseshell trade around the world. The information was collected from a wide variety of sources, including new research funded by SEE Turtles / Too Rare To Wear, past reports primarily the Too Rare To Wear Report Endangered Souvenirs report (published in 2017) and the CITES study titled "Status, Scope and Trends of the Legal and Illegal International Trade in Marine Turtles, its Conservation Impacts, Management Options, and Mitigation Priorities" (published in 2019). We also include personal communications from experts in the field and anecdotal information that includes personal communications from experts in the field, news articles, and reports made through the Too Rare To Wear website, among others.

Each section that contains information from the two primary reports will be entitled "Endangered Souvenirs (2017)" or "CITES (2019)." For historical reference and additional context, we also include data from older reports, going back to 2002, some of the primary trading countries profiled in this

report. In addition, in the anecdotal section for each country, we include historical data on the tortoiseshell trade for profiled countries from the Monterey Bay Aquarium study going back to the late 1800's and data from the US Fish & Wildlife on seizure of tortoiseshell products coming into the United States between 2007 to 2017.

Language is either taken directly from these reports or paraphrased, as appropriate and each source is noted. In some cases, information was summarized and text edited lightly to be consistent in terms of terminology (for example, turtleshell vs tortoiseshell or marine turtle vs sea turtle) or grammar. Each country section has either been written by or reviewed by local experts to ensure accuracy wherever possible. A complete list of contributors and a bibliography can be found in the appendices. Countries are ordered in each geographical section from largest trading to anecdotal and each country we included a list of organizations working on reducing the tortoiseshell trade that we are aware of, though this list should not be considered exhaustive.



COUNTRY REPORTS: CENTRAL AMERICA

NICARAGUA

LEGAL STATUS: Illegal to sell or buy turtle products.

PRODUCTS OBSERVED SINCE 2017: 9,295

- 2,205 Counted in 2020
- 7,090 Counted in 2017

MOST RECENT DATA AVAILABLE: 2020

LOCAL ORGANIZATIONS WORKING ON THE TRADE:

- Fauna & Flora International
- SOS Nicaragua
- Paso Pacífico

Past studies have shown Nicaragua to be the top hotspot for tortoiseshell product sales in the America's, and likely one of the top in the world, with estimates of souvenir shops selling these products ranging from 69 to more than 90 percent.

Too Rare To Wear completed a rapid survey in January 2020 at the two markets historically shown to be the biggest points for this trade in the country, the Masaya tourist market and the Roberto Huembes Market in Managua. Each market was visited once to count the number of shops selling tortoiseshell products. Photographs were taken at each shop to estimate the total number of items for sale. At the Masaya market, 32 of 78 shops were selling tortoiseshell (41 percent) and an estimated total of 1,325 products, including 300 pairs of earrings, 650 bracelets, 350 rings, 18 necklaces, and 7 hair clips. At Huembes, 13 of 25 shops visited (52 percent) had tortoiseshell items and an estimated 880 products were counted, including 270 pairs of earrings, 520 bracelets, 60 rings, and 30 necklaces. A total of 103 souvenir shops were visited, with 45 selling tortoiseshell (44 percent), with approximately 2,250 products counted.

These counts should be considered as very conservative estimates, as not all products could be counted directly due to photo quality and ability to capture all the products in a single image. In addition, some stores were missed at the Huembes market due to lack of time. Several shops at the airport also had tortoiseshell for sale, which is especially concerning since the products are illegal to cross borders with. Due to time restrictions, we were not able to estimate total numbers of shops or products at the airport, though the products were primarily found outside of security.

Because of the rapid nature of this assessment, we do not believe that these numbers represent a drop in the trade compared to the 2017 data below. Two factors may be affecting the numbers, primarily at the Masaya market, both related to the current political situation in the country. One is that tourism to the country has dropped precipitously compared to 2017 due to the protests and violence though the sector appears to be returning somewhat as of 2019 so there are fewer customers going to souvenir markets. The other factor is that the Masaya market was burned and looted in May 2018 and many, if not all of the shops were rebuilt and restocked.



CITES (2019)

Researchers conducted visits to local markets and street vendors in several parts of the country in May 2018, though no overall statistics were made available.

Observations of tortoiseshell sold in Nicaragua during the survey were:

- In Bilwi (on the Caribbean coast) hawksbill rings are sold at US \$1.20 while thick bracelets cost US \$6.30. Obtained revenue by a vendor ranges from US \$310 - 380. According to interviews, elder artisans no longer make hawksbill products as they used to do in the past because pieces like necklaces can no longer be easily sold. Now they make crafts combining PVC (a plastic polymer) and plastics of striking colors, adding insertions of tortoiseshell and gold to their creations.
- In Bluefields (also on the Caribbean coast), a store was found where hawksbill products with gold are sold from US \$5.70 - 25. Interviews suggested that stored raw hawksbill material is being sold for US \$12.70 a pound in Bluefields and Corn Island. This raw material is transported to Pearl Cays where a final price is negotiated before it is shipped to San Andres Island, Colombia.
- In Roberto Huembes Market, the largest handicraft retailer in Managua, it is common to find shelves with various tortoiseshell items displayed, from simple rings to bracelets, earrings, and headbands. In a visit to Managua International Airport, hawksbill products were also seen for sale to tourists.

ENDANGERED SOUVENIRS (2017)

Sixteen different coastal and inland towns and areas were surveyed by local organizations SOS Nicaragua, Fauna and Flora International, Paso Pacifico, and Universidad Nacional de Nicaragua – Managua. From these surveys, Nicaragua clearly displayed the most prolific and widespread availability of hawksbill products.

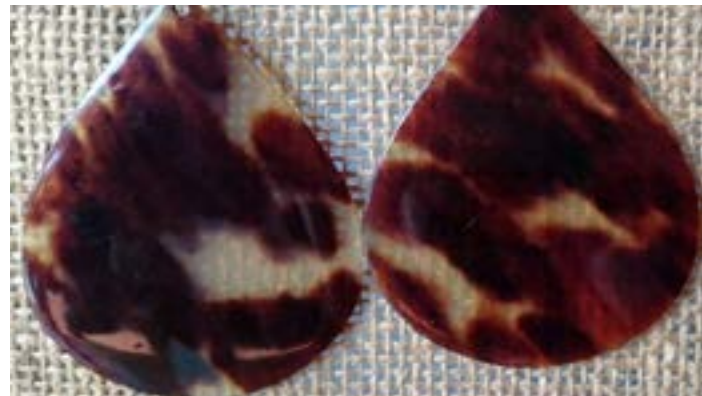
Items were encountered at 14 of the 16 tourist destinations surveyed (87.5 percent). In these destinations, surveyors visited a total of 165 different locations and hawksbill merchandise was reported at 114 (69.1 percent) of them, including souvenir shops, temporary street vendors, and permanent markets. As many as 385 items were found at individual shops; some stores with a large inventory of stock often acted as the local distributor, providing articles to neighboring locations.

Surveyors recorded a total of 7,090 tortoiseshell items. At some locations it was not possible to make an accurate count, so this figure should be viewed as a minimum number. Nicaragua accounted for 81.5 percent of the total number of hawksbill items estimated for the entire survey of eight countries (not including Colombia), with a staggering 2,746 and 2,841 items recorded in Managua and Masaya alone which respectively equates to 31.6 percent and 32.7 percent of the total number of products found in the entire survey.

Hawksbill items found in Nicaragua had an estimated value of US \$18,386 (again this figure should be seen as a minimum as it was not possible to attain price information from vendors at some locations). The prices in Nicaragua appeared to be significantly lower than in other Central America countries included in the survey; a bracelet was offered for just US \$0.34 in Managua and other small jewelry pieces were frequently being sold across the country for less than US \$2. Even the most expensive item was only valued at US \$15; this was a large necklace for sale on Corn Island on the Caribbean coast.

PREVIOUS STUDIES

The domestic tortoiseshell trade was assessed in 2011-2012 by FFI and in 2002 by the Red Regional para la Conservación de las Tortugas Marinas (RCA). Both surveys showed that Nicaragua is a major location for the trade in tortoiseshell products, with more than 4,000 items identified in 2002 and over 16,000 items recorded in the 2011-2012 survey. The FFI survey listed 139 places selling tortoiseshell out of 153 visited, equating to approximately 91 percent of shops.



TURNING THE TIDE: EXPLOITATION, TRADE AND MANAGEMENT OF MARINE TURTLES IN THE LESSER ANTILLES, CENTRAL AMERICA, COLOMBIA AND VENEZUELA (2006)

Articles from hawksbill shell were found for sale in the major markets across the country and in areas visited frequently by tourists, either national or foreign. They were also found in the Puerto Cabezas airport. They have also been observed in Bluefields airport, the secure area of the international airport in

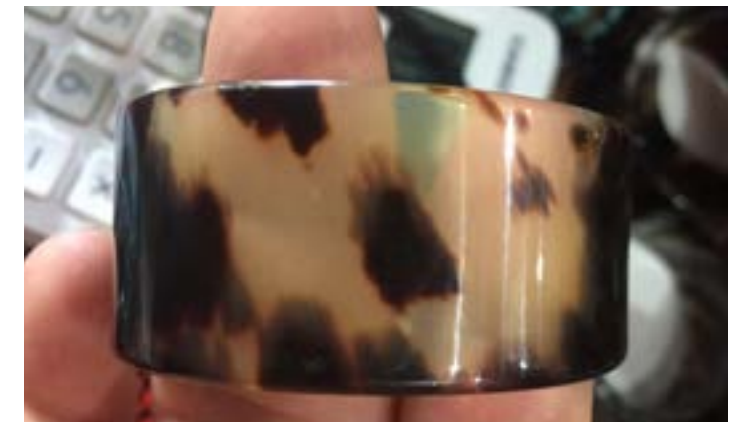
Managua, and in a shop in a mall in Managua according to a personal observation by Cynthia Lagueux, formerly of Wildlife Conservation Society.

DIAGNOSTICO SOBRE EL COMERCIO DE LAS TORTUGAS MARINAS Y SU DERIVADOS EN EL ISTMO CENTROAMERICANO (2002)

Investigators from Red de Tortugas Marinas de Centroamerica (RCA) documented 21 permanent establishments and three travelling merchants selling hawksbill shell products and counted 597 pieces at 11 sites where they were able to undertake an inventory. A subsequent visit to three of these sites counted a total of 4,085 hawksbill articles. One of the travelling merchants indicated that some of the hawksbill shell is sent for resale in Managua. Most commonly, the establishments selling shell products were those that sold handicrafts. The majority of merchants identified shell articles as important sales items, a major source of income, and the product that sold most. Further, the vast majority of merchants interviewed indicated that the shell came from the Caribbean coast of the country.

ANECDOTAL INFORMATION:

- During our online research, one listing for three bracelets was found on Facebook at a cost of 70 cordobas (US \$2). See the Online Trade section on page 71 for more information. In addition, two shipments of hawksbill products from Nicaragua to the US were confiscated by US authorities in between 2007 and 2017, which included a total of 111 items including jewelry and shells.
- According to data from Japanese imports in the Monterey Bay Aquarium study, Nicaragua exported 15,883 kilos of tortoiseshell (34,942 lbs) to Japan between 1957 and 1985.



COSTA RICA

LEGAL STATUS: Illegal to sell or buy turtle products.

PRODUCTS OBSERVED SINCE 2017: 1,092

MOST RECENT DATA AVAILABLE:

2019 (Latin American Sea Turtles, unpublished)

LOCAL ORGANIZATIONS WORKING ON THE TRADE:

· Latin American Sea Turtles

Latin American Sea Turtles (LAST), with financial support from Too Rare To Wear, surveyed a total of 91 shops in 13 sites from October 2018 to September 2019; four in the Pacific provinces of Puntarenas and Guanacaste (Puntarenas, Jacó, Liberia and Playas del Coco), two on the Caribbean coast (Limón and Puerto Viejo), and five in the central provinces (Alajuela, Fortuna, Heredia, Cartago and Turrialba). Hawksbill products were identified at two towns in the province of Puntarenas (Puntarenas and Jacó).

LAST visited souvenir shops, markets, and street vendors; of 91 visited, six (6.6 percent) had hawksbill products for sale. Surveyors estimated a total of 143 items, with some places selling just one or two small pieces, up to a maximum of 109 items in one store in Puntarenas. The combined minimum estimated value of the 143 items was US \$514, with individual items ranging in price from under US \$4 to US \$20 for rings, pendants, and bracelets of varying quality and size.

This current study supports the findings of previous surveys where Puntarenas remains the site with the greatest abundance of hawksbill products for sale in the country (140 of the 143 items - 98 percent - were reported there). The vendor with the most tortoiseshell items stated that his main market is local people from Puntarenas, who buy those items as part of their culture. Vendors admitted that the products they sell were made from hawksbill shell and they all knew that the material comes from a sea turtle. They also were aware that it is illegal to sell hawksbill items and yet they continue to do so openly in their stores. None of the vendors stated that the sale of hawksbill merchandise was their main source of income, because most of them just had a couple of items in their store.

One of the vendors in Puntarenas told the surveyors that she was going to stop selling tortoiseshell products because her only provider lived in Limón (Caribbean) and he died recently. There appears to have been a significant decrease in the amount of hawksbill merchandise available in comparison to surveys during the last two years. Nevertheless, this illegal market might be evolving or adopting alternative ways to sell unnoticed. For example, vendors and store owners in Limón and Puerto Viejo reported that tortoiseshell products are still being sold but only to locals and nationals inside houses and not in public. The sellers stated that international tourists didn't like to buy tortoiseshell products and having them in the store could damage their reputation and their sales.

It also appears that a significant part of illegal sales of tortoiseshell items is moving to popular social media like Facebook and Instagram, among others. In one year of social media scanning for tortoiseshell products, LAST and Too Rare To Wear have found and reported to the company a total of 61 links, one from Instagram and the rest from Facebook, from around the region. The products on sale were mainly spurs for cockfights, as well as jewelry, mostly bracelets and rings.

In our online research, Costa Rica was the leading country for online sales of tortoiseshell products, primarily cockfighting spurs being sold on Facebook; over a two-month period in 2019 13 advertisements for these products were found. See the Online Trade section on page 71 for more information.

Costa Rica historically was a significant market for the tortoiseshell trade, with data from 2002 (noted below) reporting that 70 percent of 54 shops visited selling these products at the time. More recent data appears to indicate a major decline in this market in the country, with about 20 percent of shops found in 2017 and under 7 percent in the most recent survey noted below. While this is not definitive proof of a decline, as neither of the most recent surveys are comprehensive, the data indicates that the trade in Costa Rica is much reduced from previous levels due to increased law enforcement and public

ENDANGERED SOUVENIRS (2017)

Eight different coastal sites were surveyed by the organizations LAST, Equipo Tora Carey, and Global Vision International; six on the Pacific (Jacó, Manuel Antonio, Playa del Coco, Puntarenas, Quepos and Tarcoles) and two on the Caribbean (Limón and Tortuguero). Hawksbill products were identified at four sites, on both coasts (Jacó, Puntarenas, Limón and Tortuguero). A total of 72 locations were surveyed, including souvenir shops, markets and street vendors; 15 (20.8 percent) stores had hawksbill products for sale. Surveyors estimated a total of 949 items, with some stores selling just one or two small pieces, up to a maximum of 462 items in one store in Puntarenas.

The combined minimum estimated value of the 949 items was US \$4,604, with individual items ranging in price from under US \$4 to US \$90 for rings of varying quality and size. Interestingly, the primary intended market for hawksbill products varied between the different sites; Jacó and Tortuguero vendors were catering predominantly to international tourists, while vendors in Limón stated that they mainly sold to Costa Rican nationals. Puntarenas, the city with the greatest abundance of hawksbill products for sale in the country (833 of the 949 items - 88 percent - were reported there) had a mixed market, with both national and international tourists (mainly from cruise ships) purchasing items

PREVIOUS STUDIES

DIAGNOSTICO SOBRE EL COMERCIO DE LAS TORTUGAS MARINAS Y SU DERIVADOS EN EL ISTMO CENTROAMERICANO (2002)

Investigators from Red de Tortugas Marinas de Centroamerica (RCA) reported 38 of 54 stores visited were selling tortoiseshell products (70 percent) and more than 2,100 tortoiseshell items were identified.

ANECDOTAL INFORMATION

- According to the media outlet El Siglo, based in Panama, a Costa Rican citizen was detained at the border with Panama carrying 15 hawksbill scutes in January of 2019. According to authorities, the person had obtained the scutes in the city of David and was attempting to bring them into Costa Rica. [link](#)
- According to a press release from SINAC (the National System of Conservation Areas) and MINAE (the Ministry of the Environment and Energy) in May 2017, more than 800 tortoiseshell products were confiscated in Puntarenas. These products included rings, bracelets and earrings with a total estimated value of approximately US \$4,400.
- During our online research, 12 listings for tortoiseshell were found in Costa Rica though it was not clear how many products were available for sale. The items were primarily bracelets and rings, as well as a brush and a necklace. See the Online Trade section on page 71 for more information.
- According to data from Japanese imports in the Monterey Bay Aquarium study, Costa Rica exported 8,192 kilos of tortoiseshell (18,022 lbs) to Japan between 1951 and 1983.

HONDURAS

LEGAL STATUS: Illegal to sell or trade turtle products.

PRODUCTS OBSERVED SINCE 2017: 47

MOST RECENT DATA AVAILABLE:

2017 (Endangered Souvenirs)

LOCAL ORGANIZATIONS WORKING ON THE TRADE:

• ProTECTOR

ENDANGERED SOUVENIRS (2017)

Conservation organization Protective Turtle Ecology Center for Training, Outreach, and Research, Inc. (ProTECTOR, Inc.) conducted surveys at a total of 38 souvenir stores in three sites in Honduras; La Ceiba, Tegucigalpa, and Valle de Angeles. Hawksbill products were observed for sale at 23 of these locations (60.5 percent). Unfortunately, surveyors were not able to estimate the number of items available or assess their total value. In contrast to other countries, the majority of vendors (73 percent) were unaware that it was illegal to sell hawksbill items, despite national laws in place that prohibit the commercialization of tortoiseshell products.

Although not all vendors had exactly the same range of merchandise available, they were able to provide basic information about the number of items they sold each week. Locations selling tortoiseshell reported an average of five pairs of earrings, three bracelets, five rings, and four necklaces per store. Items varied in price from US \$2.12 (earrings) to US \$11.89 (necklace) and it was possible to estimate that the average weekly income for vendors from the sale of hawksbill items was approximately US \$78.

PREVIOUS STUDIES

DIAGNOSTICO SOBRE EL COMERCIO DE LAS TORTUGAS MARINAS Y SU DERIVADOS EN EL ISTMO CENTROAMERICANO (2002)

In the RCA regional assessment, surveyors visited 29 shops in five sites, finding an estimated 590 items at 27 of the shops (93 percent). The town of Tela was reportedly the origin of the products, though this site was not visited during the current survey.



ANECDOTAL INFORMATION

- In August 2019, El Heraldo newspaper in Honduras reported that nine fishermen were caught with two hawksbills in captivity, among other illegal species. It was not clear what the intentions were with the hawksbills. (link)
- LAST reported in October 2018 a store in Valle del Angel selling tortoiseshell products. At least 45 products were identified from a photo provided, including earrings, rings and necklaces. Prices ranged from US \$2 (rings) to US \$7 (necklaces).
- According to data from Japanese imports in the Monterey Bay Aquarium study, Honduras exported 10,109 kilos of tortoiseshell (22,239 lbs) to Japan between 1956 and 1985.

MINOR / ANECDOTAL INFORMATION

PANAMA

LEGAL STATUS: Illegal to sell or trade turtle products.

PRODUCTS OBSERVED SINCE 2017: 656

MOST RECENT DATA AVAILABLE:

2019 (Panatortugas, unpublished)

LOCAL ORGANIZATIONS WORKING ON THE TRADE:

- Panatortugas
- Sea Turtle Conservancy

According to recent surveys and Panamanian conservationists, Panama does not appear to be a major hotspot for sales of tortoiseshell products. Items are primarily limited to cockfighting spurs sold in a few locations, as well as “polleras,” decorative headdresses used for special occasions. Panama does appear to continue to be a major source for hawkbill shells, primarily from the Bocas del Toro and San Blas regions of the country. The online trade appears to be strong as well, primarily focused on cockfighting spurs.

In 2018, Margaret von Saenger of Panatortugas spotted six jewelry stores inside a mall in Panama City that were openly selling pollera jewelry. On February 25, she reported these sales to the Ministry of Environment (MiAMBIENTE), the government agency responsible for enforcing this trade. In May of 2019, Ministry officials raided the stores, confiscating an estimated 200 pieces of jewelry from the six shops

Panama was the second leading country for online sales in our research with nine advertisements found over two months in 2019. These sales were primarily cockfighting spurs sold on Facebook. See the Online Trade section on page 71 for more information.

CITES (2019)

In addition to meat and eggs, there is a trade in hawkbill carapace and tortoiseshell handicrafts in Panama. The main provinces where these are sourced are the provinces of Bocas del Toro and Comarca Kuna Yala. Evidence suggests that hawkbill carapaces sourced from Comarca Kuna Yala and Bocas del Toro may be exported to other provinces in Panama or exported to Colombia, Costa Rica, or Mexico.

ENDANGERED SOUVENIRS (2017)

In Panama, one site was surveyed, Bocas del Toro town, on the Caribbean coast. Sea Turtle Conservancy staff visited nine shops and only one store (11.1 percent) had hawkbill items for sale. A total of 48 pieces of jewelry were recorded, with an estimated total value of US \$605. Individual items ranged in price from US \$3 for rings to US \$25 for large bracelets. The vendor selling the tortoiseshell products knew that they were hawkbill and that it is illegal to sell such items.

PREVIOUS STUDIES

DIAGNOSTICO SOBRE EL COMERCIO DE LAS TORTUGAS MARINAS Y SU DERIVADOS EN EL ISTMO CENTROAMERICANO (2002)

The 2002 RCA assessment identified 16 vendors in five sites across the country, primarily in the Bocas del Toro area. More than 400 pieces were found at these shops.



ANECDOTAL INFORMATION

- Researchers including Dr. Jeffrey Seminoff of the National Ocean and Atmospheric Administration (NOAA), a US government agency, worked with Panamanian wildlife conservation authorities to analyze stable isotopes of confiscated tortoiseshell samples of cockfighting spurs. The purpose of the research was to determine where the hawksbills that were being hunted for these products originated. The majority of samples (69 out of 77) were determined to be of Atlantic / Caribbean origin, while eight samples came from the Pacific.
- LAST reported that a batch of tortoiseshell cockfighting spurs were found and confiscated at the Panama City Airport in December 2018. From a photo provided by LAST, at least 408 spurs were counted.
- During our online research, there were nine listings of tortoiseshell products for sale in the country. These products were exclusively cockfighting spurs which ranged from US \$70 to \$200 for a set. See the Online Trade section on page 71 for more information.
- According to data from Japanese imports in the Monterey Bay Aquarium study, Panama was one of the leading countries exporting tortoiseshell to Japan. Records show 206,067 kilos (453,347 lbs) exported between 1952 and 1985.

BELIZE

LEGAL STATUS: Illegal to sell or buy turtle products.

PRODUCTS OBSERVED SINCE 2017: 26

MOST RECENT DATA AVAILABLE:

2019 (EcoMar, unpublished)

LOCAL ORGANIZATIONS WORKING ON THE TRADE:

• EcoMar

EcoMar, a Belizean conservation organization, conducted a survey of 121 shops and markets in four parts of the country (Belize City, Placencia, San Ignacio, and San Pedro) between September and October 2019. A total of 26 tortoiseshell products were found at five shops (4 percent), which were primarily earrings (18 pairs), followed by guitar picks (4), combs (2), bracelets (1), and pendants (1).

Three of the five shops selling tortoiseshell products were in Belize City and the remaining two were in Placencia. Researchers noted that future surveys need to be completed during peak tourist season to observe more shops when a greater variety of products are for sale have been witnessed.

No online sales were found in Belize in our research. See the Online Trade section on page 71 for more information.



ENDANGERED SOUVENIRS (2017)

Three different sites were surveyed by the Oceanic Society; Belize City, San Pedro, and Belize City international airport. A total of 47 locations were visited, including a tourist village and permanent markets, with a minimum of seven locations surveyed at each site. Belize was the only country where no hawksbill products were observed at any location, though a small number of guitar picks for sale by a vendor at a market in San Ignacio were observed by SEE Turtles staff in 2017.

PREVIOUS STUDIES

DIAGNOSTICO SOBRE EL COMERCIO DE LAS TORTUGAS MARINAS Y SU DERIVADOS EN EL ISTMO CENTROAMERICANO (2002)

In the RCA assessment, seven sites were visited in Belize and tortoiseshell was observed for sale at just two of approximately 80 places visited (2.5 percent).

ANECDOTAL INFORMATION

- According to data from Japanese imports in the Monterey Bay Aquarium study, Belize exported 7,174 kilos of tortoiseshell (15,782 lbs) to Japan between 1956 and 1986.
- There have been reports to EcoMar of products being sold in San Pedro, Hopkins, and the Cayo Market, as well as a reported black market in Caye Caulker, though the reports were not confirmed in the most recent survey.

MINOR / ANECDOTAL INFORMATION

GUATEMALA

LEGAL STATUS: Illegal to sell or buy turtle products.

PRODUCTS OBSERVED SINCE 2017: 36

MOST RECENT DATA AVAILABLE: 2019 (anecdotal)

LOCAL ORGANIZATIONS WORKING ON THE TRADE:

None that we are aware of

Guatemala was not assessed in Endangered Souvenirs (2017) based on communication from Colum Muccio of ARCAS who had done a country survey for turtle products and did not find any tortoiseshell. However, Too Rare To Wear has received two separate reports (listed below) of these products for sale, which we believe warrants additional investigation.

- Didiher Chacon of LAST reported a store in Antigua selling tortoiseshell products to Too Rare To Wear in January 2019. A photograph showed at least 22 products for sale, including bracelets, necklaces, and earrings.
- In addition, Linda Searle of EcoMar (Belize) reported tortoiseshell products for sale in the city of Livingston in June 2017. From photographs, there were at least 14 products for sale, including two full carapaces and bracelets.

COUNTRY REPORTS: CARIBBEAN

CUBA

LEGAL STATUS: Illegal to sell or buy turtle products.

PRODUCTS OBSERVED SINCE 2017: 194

MOST RECENT DATA AVAILABLE:

2019 (Instituto Superior de Tecnologías y Ciencias Aplicadas (InSTEC) unpublished)

LOCAL ORGANIZATIONS WORKING ON THE TRADE:

· InSTEC

In a 2019 survey led by Dr. Julia Azanza of the Instituto Superior de Tecnologías y Ciencias Aplicadas (InSTEC, in English, the Higher Institute of Technologies and Applied Sciences), a Cuban educational institution, volunteers visited 29 shops and found tortoiseshell products in three (10 percent). A total of 63 items were found, which consisted primarily of bracelets (36), rings (10), earrings (10 pairs), combs (4), fans (2), and a sculpture. This most recent data appears to show a decline in tortoiseshell sales, at least in Havana. Dr. Azanza attributes this to increased attention by government officials and a reduction in demand by Cuban citizens.

ENDANGERED SOUVENIRS (2017)

Surveys were conducted in Havana by volunteers from InSTEC. In 2016, hawksbill artifacts were reported at nine (47.4 percent) of the 19 stores and markets visited. There were vendors who stated that they did not have any hawksbill items 'at the moment', so presumably would normally have them available. A total of 131 items were identified, with an estimated value of US \$3,285. Some items could not be priced, so this estimate should be seen as a minimum value. In addition to the more common jewelry items, surveyors also encountered several larger, more intricate (and more valuable) products such as fans and large hair combs, which were on sale for up to US \$200. Vendors indicated that the primary market for tortoiseshell items were tourists, mainly Cuban-Americans.

PREVIOUS STUDIES

VIAJERAS EN PELIGRO (PROTORTUGAS/WWF CUBA, 2014)

WWF Cuba visited 42 souvenir shops looking for tortoiseshell items for sale in the cities of Havana (26), Trinidad (10), Camaguey (2), Santiago de Cuba (3), and Baracoa (1). No specific figures were provided but the articles ranged in price from 2 to 50 CUC for the smaller items and 50 to 200 CUC for larger items like the fans (1 CUC equals US \$1).

ANECDOTAL INFORMATION

- Too Rare To Wear received a report through our website that tortoiseshell products were being sold in the Museum of the Revolution in Havana (January 2019). The items were confirmed by photo and included bracelets and earrings.
- Too Rare To Wear received a tip from Linda Searle of EcoMar (Belize) in March 2019 that products were being sold in Camaquey. Both this location and the one above were reported to Cuban authorities.
- Since hawksbills were included on Appendix I of CITES, Cuba has maintained a stockpile of hawksbill shells in case the market reopened (though several attempts by Cuba and Japan to allow the sale of these shells have not been successful). In 2002, a report by the Species Survival Network reported the stockpile to be 7.8 tons, though more recent information is not available.
- According to data from Japanese imports in the Monterey Bay Aquarium study, Cuba was one of the largest exporters of tortoiseshell to Japan. The country was recorded to have sent 173,109 kilos of tortoiseshell (380,840 lbs) between 1936 and 1992.
- Between 2007 and 2017, a total of three seizures of three entire hawksbills coming into the US were reported by the US Fish & Wildlife Service.
- As noted in the section on Venezuela (on page 41), researchers also believe that tortoiseshell has been illegally exported from Cuba to Venezuela. However, this trade has not been proven and it is unclear whether it occurred in the past or is ongoing.

GRENADA

LEGAL STATUS: Legal to sell turtle products.

PRODUCTS OBSERVED SINCE 2017: 108

MOST RECENT DATA AVAILABLE:

2017 (Endangered Souvenirs)

LOCAL ORGANIZATIONS WORKING ON THE TRADE:

· Ocean Spirits

ENDANGERED SOUVENIRS (2017)

In Grenada, nine sites across the island were surveyed by staff from Ocean Spirits Inc.: Belmont, Calivigny, Concord, Grand Anse, Grand Etang, Hillsborough, Paradise Beach, Port Louis, and St George. Three of these sites (33.3 percent) had hawksbill products for sale – Concord, Grand Anse, and Hillsborough. Of the 46 souvenir stores and street vendors surveyed, seven (15.2 percent) had hawksbill items for sale.

In one store in Port Louis, the merchandise was displayed on pieces of hawksbill shell and bones; however, the vendor told surveyors that they were not for sale. A total of 108 items were recorded, with an estimated total value of US \$1,862. In general, prices were higher in Grenada than the other countries surveyed; rings and guitar picks were on sale for around US \$9, compared to less than US \$2 elsewhere. Furthermore, Grenada was the only country where whole hawksbill carapaces were observed for sale, with a retail cost of around US \$200.

ANECDOTAL INFORMATION

- In August 2019, Too Rare To Wear received a report through the website of a roadside vendor near Concord Falls selling bracelets and pendants. According to the report, the vendor claimed the scutes have been shed by the hawksbills (which is not scientifically accurate). Follow up with Ocean Spirits confirmed this was a known tortoiseshell seller.
- According to data from Japanese imports in the Monterey Bay Aquarium study, Grenada exported 3,532 kilos of tortoiseshell (7,770 lbs) to Japan between 1973 and 1991.
- One full hawksbill shell was seized coming into the US between 2007 and 2017 according to US Fish & Wildlife Data.

HAITI

LEGAL STATUS: Legal to sell or purchase turtle products.

PRODUCTS OBSERVED SINCE 2017: Not available

MOST RECENT DATA AVAILABLE:

2019 (Haiti Ocean Project, unpublished)

LOCAL ORGANIZATIONS WORKING ON THE TRADE:

· Haiti Ocean Project

Supported by Too Rare to Wear, Haiti Ocean Project conducted an eight-month assessment into the tortoiseshell trade in the country, from October 2018 to May 2019, the first on record for the country. Their staff visited 13 fishing villages and two towns on the outskirts of Port au Prince, interviewing more than 100 individuals, including local fishermen, their wives, community leaders, and people who work at local markets.

The research confirmed that the shells are being transported across the border with the Dominican Republic and overseas. It remains unclear who is purchasing these shells in the Dominican Republic. One fisherman reported that individuals from the Dominican Republic visited his village to work out a deal to purchase the hawksbill shells. To avoid capture by the authorities, Dominicans hire local Haitians to separate the scutes, place them in suitcases, and transport them across the border. This puts the Haitians at risk while protecting the Dominicans who are the ones making the largest profits. Fishermen in the southern Haitian community of Les Cayes also confirmed that hawksbill shells in the past had been prepared for export to another country, but they could not confirm where they were exported to.

Hawksbill carapaces are also sold locally to individuals who admire the beauty of the shell, to hang them in their homes or businesses. The principal areas of commerce were the Iron Market, a big public market in the city, as well as Petionville and Delmas (wealthy suburbs to the southeast of the capital). The shells sold at the Iron Market were caught by fishermen in coastal fishing villages just west and southwest of Port-au-Prince, including Gressier and Leoganne. Vendors in Petionville also sell hawksbill and green turtle shells along the roads going up the mountains. During interviews, Haiti Ocean Project staff were told that most of these shells are sold to visitors or tourists, not locals.

ANECDOTAL INFORMATION

- In July 2017 officials at the Charles De Gaulle airport in France seized nearly half a ton of hawksbill shells in cartons sent by air freight from Haiti on route to Viet Nam. The shells were from an estimated 380 hawksbills with an estimated street value of US \$350,000. ([link](#))
- From 2007 to 2017, a total of six seizures of eight hawksbill products were confiscated at the US border by US Fish & Wildlife Service. The products were primarily carapaces and shell products.
- According to data from Japanese imports in the Monterey Bay Aquarium study, Haiti exported 51,201 kilos of tortoiseshell (112,642 lbs) to Japan between 1959 and 1991.

MINOR / ANECDOTAL INFORMATION

DOMINICAN REPUBLIC

LEGAL STATUS: Illegal to buy or sell turtle products.

PRODUCTS OBSERVED SINCE 2017:
15 confiscated in a government operation (2017)

MOST RECENT DATA AVAILABLE: 2010

LOCAL ORGANIZATIONS WORKING ON THE TRADE:

None that we are aware of

The sale of hawksbill products in the Dominican Republic was banned in 2009 and the market is believed by several researchers to have dramatically diminished, though no systematic survey has been conducted since 2010. According to one report from WWF Mexico, the quantity of tortoiseshell products decreased 99 percent from 2006 (noted below), when roughly 23,000 products were counted, to 2009, when only 135 products were counted (link). However, we were not able to confirm those figures, as no report from TRAFFIC in 2009 was found and the report from 2006 (see below) did not specify 23,000 tortoiseshell products counted. This decline is attributed to strong government action including the banning of the tortoiseshell trade and encouragement of alternative types of materials like cow horn.

The most recent research is from the Secretaria de Asuntos Ambientales del Tratado de Libre Comercio (the Secretary of Environmental Issues of the Free Trade Treaty CAFTA), an agency related to the CAFTA Treaty between the US, Central America, and the Dominican Republic (SAA). The SAA report was led by Costa Rican researcher Didiher Chacon, then of WIDECAS. The 2010 SAA survey visited souvenir shops in 10 locations around the country, finding 44 shops selling tortoiseshell, though it was not clear the total number of shops visited or how many products were found and we were not able to track down any additional reporting on this research.

Some anecdotal evidence listed below suggests that trade still occurs in the country, which may warrant new research to confirm. Recent research from Haiti (page 33) indicated ongoing trade of hawksbill scutes from Haiti to the Dominican Republic. In addition, internet research turned up a couple of incidents of seizures of hawksbill products from the country (see anecdotal section below).

PREVIOUS STUDIES

TOURISTS, TURTLES, AND TRINKETS: A LOOK AT THE TRADE IN MARINE TURTLE PRODUCTS IN THE DOMINICAN REPUBLIC AND COLOMBIA (TRAFFIC 2006)

In 2006, research by TRAFFIC showed the tortoiseshell trade in the Dominican Republic to be extensive. Seven locations were visited, with a total of 249 of 414 souvenir shops visited (60 percent) selling hawksbill items. The report notes an estimation of 50,000 turtle products found (as opposed to the 23,000 products noted above), which were described as hawksbill products but not necessarily products related to the shells.

ANECDOTAL INFORMATION

- In October 2017, the Ministry of the Environment and Natural Resources conducted various operations around the country, including souvenir shops in San Pedro de Macoris, Juan Dolio and Guayacanes. The only information available was that 15 products were confiscated, but news reports were not clear in which towns shops were found selling these products, or how many shops were implicated. (link) In addition, an entire hawksbill carapace was confiscated in an online transaction and one of the people involved claimed it had been brought from the Dominican Republic (Link).
- As noted in the previous section, researchers in Haiti believe there is a strong trade of raw carapaces and scutes from Haiti into the Dominican Republic and from there to Japan (as noted in the Japan country report..
- Between 2007 and 2017, the Dominican Republic had the largest total of seizures recorded coming into the US. Seventeen seizures for a total of 50 hawksbill products were reported by US Fish & Wildlife Service, including whole turtles, meat, carapaces, and trophies.
- According to data from Japanese imports in the Monterey Bay Aquarium study, the Dominican Republic exported 14,624 kilos of tortoiseshell (32,173 lbs) to Japan between 1882 and 1987.

TRINIDAD / TOBAGO

LEGAL STATUS: Illegal to buy or sell turtle products.

PRODUCTS OBSERVED SINCE 2017: 20

MOST RECENT DATA AVAILABLE:

2019 (Nurturing Nature Trinidad & Tobago, unpublished)

LOCAL ORGANIZATIONS WORKING ON THE TRADE:

· Nurturing Nature Trinidad & Tobago

Staff from Nurturing Nature Trinidad & Tobago visited a total of 22 souvenir shops on the island of Tobago. Local turtle organizations here had suspected that there was no current trade but thought it worthwhile to conduct a survey since it had been several years since markets had been surveyed. No tortoiseshell products were found at any of the stores during the survey, though in January 2020, one shop in Englishmen's Bay was found selling approximately 20 bracelets.

One interesting note; during the survey one of the vendors, when asked if they sold tortoiseshell, said that their lease for the shop included a clause about selling anything illegal at the store. The clause did not mention hawksbill products specifically but did mention leatherback turtles as well as coral.

PREVIOUS STUDIES

TURNING THE TIDE: EXPLOITATION, TRADE AND MANAGEMENT OF MARINE TURTLES IN THE LESSER ANTILLES, CENTRAL AMERICA, COLOMBIA AND VENEZUELA (2006)

Apart from consumptive uses, fishers derived supplementary income from the sale of sea turtle products, including stuffed juveniles, tortoiseshell jewelry, and trinkets and polished whole carapaces, all of which fetched good prices in both local and export markets throughout the 20th century. Hawksbill shell has long been used to fashion jewelry and household items and has been a source of foreign exchange.

During the 1970s, Tobago's Handicraft Section (Ministry of Community Development) purchased sea turtle shells for use in their village programs as the raw material for making bracelets, earrings, brooches, pendants, and hair clips. In the late 1990s, hawksbill shell articles were openly sold in many tourist-oriented retail markets, including both airports (Piarco International Airport in Trinidad and Crown Point in Tobago), as well as by roadside vendors and in hotel shops and boutiques, particularly in Tobago. In Tobago, education of locals and tourists has "greatly changed this situation" and these items are now much less commonly seen.

ANECDOTAL INFORMATION

- There were two reported seizures of two carapaces coming into the US between 2007 and 2017.
- According to data from Japanese imports in the Monterey Bay Aquarium study, Trinidad & Tobago exported 3,199 kilos of tortoiseshell (7,038 lbs) to Japan between 1952 and 1985.

COUNTRY REPORTS: SOUTH AMERICA

COLOMBIA

LEGAL STATUS: Illegal to sell or buy turtle products.

PRODUCTS OBSERVED SINCE 2017: 4,325

MOST RECENT DATA AVAILABLE:

2019 (Fundación Tortugas del Mar, unpublished, & CITES)

LOCAL ORGANIZATIONS WORKING ON THE TRADE:

· Fundación Tortugas del Mar
· WWF Colombia



Fundación Tortugas del Mar has been carrying out studies of tortoiseshell sales in the coastal city of Cartagena since 2008. Too Rare To Wear has been providing financial support for research and outreach since 2017. Since *Endangered Souvenirs* was published, the Fundación has continued surveys in Cartagena and has expanded those surveys to the islands of San Andres and Providencia, as well as the coastal cities of Santiago de Tolu, Coveñas, Rincon del Mar, Santa Marta, Rodadero, and the capital Bogota.

In Cartagena, the Fundación has documented a dramatic decrease in tortoiseshell sales by street vendors (the primary sellers of these products) due to efforts by conservation organizations (including the Fundación and WWF Colombia) in conjunction with government authorities. In 2017, 12 of 60 vendors were selling these products (20 percent), while in 2018 and 2019, only two and four sellers were found respectively (out of 65 surveyed in 2018 and 222 surveyed in 2019).

The Fundación estimated roughly 1,800 to 2,200 products found for sale in 2017, dropping to 200 to 400 in 2018, and 120 to 220 in 2019, an estimated 90 percent decrease in sales. The Fundación accompanied patrols by Colombian authorities each year, witnessing the confiscation of 271 pieces of tortoiseshell in 2017, 203 pieces in 2018, and 36 in 2019 from a total of 14 vendors.

In our online research, we found six advertisements for tortoiseshell products sold in Colombia, primarily cockfighting spurs sold on Facebook. See the Online Trade section on page 71 for more information.

TABLE 1: TORTOISESHELL SURVEYS IN COLOMBIA

CITY	SHOPS VISITED	SHOPS WITH TORTOISESHELL	%	# OF PRODUCTS	ESTIMATED VALUE
Coveñas	40	4	10	450-600	\$ 4,700
Rincon del Mar	4	1	25	750-950	\$7,100
Santa Marta	47	6	13	110-210	\$1,350
Rodadero	184	10	5	200-400	\$2,200
San Andres	20	1	5	60-150	\$750
Providencia	2	1	50	450-600	\$3,880
Santiago de Tolu	50	1	2	35-95	\$255
Bogota	35	1	3	150-200	\$950
TOTALS	382	25	8	2,205 - 3,205	\$21,185

In total (including Cartagena), the Fundación made 1,273 visits to shops and vendors in these 9 cities from 2017 to 2019, finding tortoiseshell 62 times (5 percent). They estimated a range of 4,325 to 6,025 products found over that time period with an estimated value of about US \$41,000.

CITES (2019)

The sale of raw sea turtle carapaces exists in the Colombian departments of Bolivar, Valle del Cauca, La Guajira, San Andrés, Providencia, Santa Catalina, and Sucre. A fisherman in Tolu (Sucre) was selling sea turtle carapaces to people from the cities of Bogotá, Medellín, Monteria, and Cali. When visited, six carapaces were in his possession (five green turtles and one loggerhead, but he also appeared to sell hawksbill carapaces). Findings suggest that carapaces sourced from the San Andrés, Providencia, and Santa Catalina Archipelago are sent to Cartagena to be worked and sold as handicrafts.

The sale of handicrafts made of hawksbill carapace was found to exist in Cartagena, Santiago de Tolu, Santa Marta and Baru, though no specific counts of shops or products were available. In Cartagena, products are commonly offered in street sales in main tourist places. At some locations, handicraft products are openly offered and at others they are not displayed and will only be shown if requested. In Magdalena department, two souvenir markets were found to sell hawksbill handicrafts, and one seller indicated that the products came from Cartagena.

The demand for cockfighting spurs made of hawksbill carapace in the Colombian Caribbean appears to be growing. These spurs were found for sale in Baru (Bolívar), where it is easy to identify retailers and cockfighting locations through taxi drivers. The sale of cockfighting spurs is made discretely. In addition

to being offered in physical markets, five offers of cockfighting spurs made of hawksbill shell were found online. Some of these advertisements indicated that they would ship the products to any place within the country upon demand. It seems possible that these products could also be shipped to destinations outside the country. Anecdotal evidence suggests that these products may be exported to countries such as Ecuador, Guyana, Suriname, and Venezuela.



ENDANGERED SOUVENIRS (2017)

Information from Colombia has been collected since 2008 by Fundación Tortugas del Mar, as part of an ongoing independent study they have conducted to assess the trade of hawksbill products in the city of Cartagena. Each year from 2008 to 2013, 60 to 65 street vendors were surveyed; a further 32 souvenir shops and retail stores were also visited. Prior to 2012 none of the permanent locations had any hawksbill products for sale, but in the last five years tortoiseshell items have been recorded in these stores.

Of the street vendors, from 2008 – 2012, 15 – 24 stalls were recorded selling hawksbill products each year (20 – 36.9 percent), exclusively in the area of Amurallado (the historic walled city). Since 2012, surveyors have observed an expansion of the trade of hawksbill items into neighboring tourist locations, such as Bocagrande and Castillo de San Felipe, and a minimum of 18 stores and stalls were reported selling tortoiseshell products during each survey.

PREVIOUS STUDIES

TOURISTS, TURTLES AND TRINKETS: A LOOK AT THE TRADE IN MARINE TURTLE PRODUCTS IN THE DOMINICAN REPUBLIC AND COLOMBIA (TRAFFIC 2006)

In Colombia, three locations with seven distinct trade areas were visited, with hawksbill tortoiseshell items traded in craft markets, souvenir shops, and by street vendors. A total of 223 shops and vendors were investigated, with 60 of these offering hawksbill products for sale. Products were generally available in established shops and stalls, by vendors (walking in the city or along the beaches), and through informal “sidewalk artisans” selling crafts and jewelry items. The old city in Cartagena and El Rodadero in Santa Marta are the places where most of the hawksbill shell items were traded.

TURNING THE TIDE: EXPLOITATION, TRADE AND MANAGEMENT OF MARINE TURTLES IN THE LESSER ANTILLES, CENTRAL AMERICA, COLOMBIA AND VENEZUELA (2006)

Hawksbill turtles are taken primarily for their shell, which is widely traded to make spurs of different sizes for cockfighting and for fashioning into buckles, jewelry boxes, cooking ladles, hair combs and other objects sold at handicraft fairs and probably to tourist souvenir shops; it is said that in Cartagena there are workshops where hawksbill shell is fashioned into different objects. CITES-reported exports of sea turtles from Colombia for the period 1993–2004 (inclusive) consist virtually entirely of items apparently

seized on arrival in either the USA or Spain. Six of the shipments to the USA (including one of 468 hawksbill carvings in 1994 and another of 10 hawksbill carapaces in 1992) were recorded as commercial, while the remaining shipments are presumed to have been for personal use (e.g. 60 eggs) or tourist souvenir specimens.

The seizure in 2000, by the regional environment authorities, the CAR of Canal del Dique (CARDIQUE), of a shipment of hawksbill shell in Cartagena airport, possibly destined for Panama, is the only other documented evidence of international commercial trade from Colombia. The two packages of hawksbill scutes were packed with coconut shells and seashells. Customs authorities in Aruba report seizing annually, on average, 100 pairs of cockfighting spurs made from hawksbill shell originating from Colombia. Despite the fact that cockfighting is illegal in Aruba, the spurs are clearly intended for local use and there is no indication of re-export.



ANECDOTAL INFORMATION

- In July 2018, the first reported confiscation of tortoiseshell products from tourists happened in Cartagena. A Spanish couple was found in Las Bovedas, in the Historic Center, and several pieces of tortoiseshell including a necklace and two bracelets were seized by authorities. The Spanish couple claimed the items were brought from home. ([link](#))
- During our online research, three listings for tortoiseshell products were found for sale in Colombia. These listings were all cockfighting spurs and ranged from 5,000 to 100,000 Colombian pesos for a pair (US \$1.50 to US \$30).
- According to data from Japanese imports in the Monterey Bay Aquarium study, Colombia exported 937 kilos (2,061 lbs) of tortoiseshell to Japan between 1966 and 1975.

VENEZUELA

LEGAL STATUS:

Illegal to sell or possess sea turtle products.

PRODUCTS OBSERVED SINCE 2017: 21

MOST RECENT DATA AVAILABLE:

2019 (Hector Barrios, unpublished)

LOCAL ORGANIZATIONS WORKING ON THE TRADE:

- Grupo de Trabajo en Tortugas Marinas del Golfo de Venezuela (GTTM-GV)
- Laboratorio de Ecología General, Departamento de Biología, Facultad Experimental de Ciencias, La Universidad del Zulia (LUZ)

In the Guajira Peninsula (Gulf of Venezuela), formal evaluations and local market surveys of the illegal trade of sea turtle products, including tortoiseshell, have been carried out by local organizations and the University of Zulia since 2002 (Barrios-Garrido & Montiel-Villalobos, 2008; Barrios-Garrido et al., 2017). However, due to the nature of this activity and the complex network that involves multiple actors such as fishers/fish collectors (including turtle hunters), wholesalers/transporters, business owners, and final buyers, the data presented here is likely an underestimate in terms of quantity, prices, and number of people involved.

Despite the trade of tortoiseshell being illegal under Venezuelan law, commercialization of products derived from hawksbill scutes is common in local markets in the Guajira Peninsula and online, with almost no law enforcement (Barrios-Garrido et al., 2008). In most cases, the local sellers recognized the illegality of the trade, but they affirmed that the depressed economic conditions are the key factor that incentivizes this trade (Castellano-Gil & Barrios-Garrido, 2006; Villate, 2010).

In the Gulf of Venezuela, the northwestern part of the gulf is settled by the Wayuú indigenous people who still perform their cultural rituals using hawksbill turtles (Guerra Curvelo, 2011; Chacín, 2016). Due to the economic conditions in this region, the illegal take of turtle products is highly impacting this species. Furthermore, the illegal trade of sea turtle products including raw scutes and finished products between Venezuela and Colombia is a historic activity carried out by Wayuú inhabitants (Robles, 2008) since the Venezuelan Guajira is the ancestral territory that crosses the border with Colombia.

In our online research, we found three advertisements of tortoiseshell products for sale in Venezuela, primarily cockfighting spurs sold on Facebook. See the Online Trade section on page 71 for more information.

CITES (2019)

This report cites Barrios-Garrido et al. (2017) who found that sea turtles originating from the southwestern coast along the Gulf of Venezuela are moved across the border into Colombia. These authors found that, according to 33 respondents, the most common destinations in Colombia were the cities of Riohacha and Maicao (Guajira Colombian Peninsula), although some respondents also indicated Valledupar, Santa Marta, Barranquilla, Cartagena de Indias, Rosario Islands, and even Panama. There was not much clarity concerning the products that are exported. Some of the responses obtained by those authors indicated that this trade comprised only hawksbill carapaces.

PREVIOUS STUDIES

TURNING THE TIDE: EXPLOITATION, TRADE AND MANAGEMENT OF MARINE TURTLES IN THE LESSER ANTILLES, CENTRAL AMERICA, COLOMBIA AND VENEZUELA (2006)

The consumption of meat and eggs, use of carapaces for decoration and production and consumption of other products derived from sea turtles are a deeply rooted tradition in most of the coastal communities of the country. Research undertaken in the late 1980's aimed at assessing the status of sea turtles of the Caribbean coast of Venezuela revealed that many turtles were taken in foraging grounds and that the killing of nesting females and collection of nests were intensive, fueled by a high demand on the internal market for meat and other products for consumption and ornamental use (Guada and Solé, 2000). Hawksbill scutes were fashioned into various objects, in particular spurs for cockfighting, and large quantities of these and other products were handcrafted, principally on Isla de Margarita and in a few other cities along the coast.

According to CICTMAR (2002), whether and how sea turtles are marketed depended on the species and the proximity of the animal's site of capture to either a point of sale or a potential buyer. When a nesting female was taken on the beach or on a fishing ground, the meat was often consumed by the fishers, their families, and friends. Parts, such as carapaces or hawksbill scutes, are sold in accordance with demand. In 1997 and 1998, Guada and colleagues recorded a price equivalent to US \$1,000 per kilo of hawksbill scutes at one site along the Gulf of Paria (Irapa). There was also a demand for sea turtle carapaces, which are decorated for sale around the country.

ANECDOTAL INFORMATION

- During informal open-ended interviews, some acquaintances and colleagues have claimed that it is possible to find tortoiseshell products across the country, most of which are cockfighting spurs.
- Anonymous sources believe tortoiseshell products have been brought to Venezuela from Cuba, due to their being called Cuban spurs ('Espuelas Cubanas') as well as the fact that they look different than others handcrafted in Venezuela or Colombia. Sources affirmed that this trade has occurred due to the lack of surveillance of flights between Venezuela and Cuba to the Simon Bolivar International Airport in Maiquetia, the country's most important airport. Because of the close diplomatic ties of these two countries, flights from Cuba to Venezuela often use the national (domestic) terminal, allowing them to bypass customs officials. However it is not clear if this trade is ongoing or in the past.
- During our online research, no listings for tortoiseshell were found in the country, which were both bracelets that cost US \$1 to \$5.
- According to data from Japanese imports in the Monterey Bay Aquarium study, Venezuela exported 2,865 kilos of tortoiseshell (6,303 lbs) to Japan between 1957 and 1986.

MINOR/ANECDOTAL SALES

ECUADOR

LEGAL STATUS:

Illegal to sell or possess sea turtle products.

PRODUCTS OBSERVED SINCE 2017: None

MOST RECENT DATA AVAILABLE: None

LOCAL ORGANIZATIONS WORKING ON THE TRADE:

· Equilibrio Azul

In November 2016, Cristina Miranda of Equilibrio Azul, an Ecuadorean conservation organization, reported that tortoiseshell products are sold in the country but not frequently (pers. comm.). She reported that occasionally artisans near Machalilla National Park offer tortoiseshell products for sale. The artisans claim that they come from dead hawksbills washed up on the beach, though Equilibrio Azul does not believe that to be true. A dead hawksbill was found in September 2016 without any scutes. She also confirmed that tortoiseshell is popularly used as cockfighting spurs across the country.

During our online research, a total of six listings for tortoiseshell products were found online in Ecuador, all of which were for cockfighting spurs. See the Online Trade section on page 71 for more information.

PERU

LEGAL STATUS:

Illegal to sell or possess sea turtle products.

PRODUCTS OBSERVED SINCE 2017: None

MOST RECENT DATA AVAILABLE: None

LOCAL ORGANIZATIONS WORKING ON THE TRADE:

None that we are aware of

Miranda of Equilibrio Azul reported that volunteers had alerted them of tortoiseshell sales in Mancora in Northern Peru (on the border with Ecuador). These sales have not been directly confirmed. In October 2019, Joana Alfaro of ProDelphinus, a Peruvian conservation organization, confirmed that open sales of these products no longer occur at this site, but there is a black market (pers. comm.). Previously, products were sold in places in the northern part of the country, including Mancora and Cancas.

One advertisement for tortoiseshell products was found for sale online in Peru. See the Online Trade section on page 71 for more information.

COUNTRY REPORTS: NORTH AMERICA

USA

LEGAL STATUS:

Illegal to import, export, possess, sell, transport, kill, harass, or harm sea turtles; legality of the sale of turtle products depends on state.

MOST RECENT DATA AVAILABLE: Not applicable

LOCAL ORGANIZATIONS WORKING ON THE TRADE:

- SEE Turtles
- Wildlife Trafficking Alliance
- Humane Society International & US
- Defenders of Wildlife
- International Fund for Animal Welfare
- Wildlife Trafficking Alliance (AZA)
- WildAid
- World Wildlife Fund

In the US, tortoiseshell products are generally sold online (which is rare), smuggled into the country, or brought into the country by travelers, often unknowingly breaking the law. Data from the US Fish & Wildlife Service on wildlife product seizures from Latin America and the Caribbean to the US (compiled by Alejandra Goyenechea of Defenders of Wildlife), from 2007 to 2017 (when the most recent data is available), show 67 seizures of hawksbill products at the border. However, that is likely significantly undercounted since the majority of seizures of sea turtle products (a total of 531) don't list a specific species and hawksbills are the most common one found.

Of seizures identified as hawksbills, a total of 317 pieces were confiscated, with an estimated value of US \$105,688 (note: 2 individual shell products were estimated to be a value of \$100,000 which would seem to be unlikely and perhaps incorrect as few products have been found of this value). Of the 317 pieces, at least 211 are likely related to tortoiseshell, either carapaces/shells, shell products, scutes, and bodies, specimens, and trophies. Of the seizures not specified by species, roughly 162 pieces are fairly likely to be hawksbill products. See table 2 below for specific counts.

TABLE 2: TORTOISESHELL SURVEYS IN USA

TURTLE	JEWELRY	CARPACES/ SHELLS	SHELL PRODUCTS	SCALES	BODIES/ SPECIMENS/ TROPHIES	TOTALS
Hawksbill	11	136	24	23	17	211
Not Specified	42	76	36	5	3	162

While it is illegal to bring sea turtle products into the country or possess them, products that were owned before laws protecting them were passed can be owned or sold as antiques. In addition, the sale of sea turtle products within states (as opposed to across state lines) continues to be legal, except in states that have explicitly passed laws outlawing these sales. The Humane Society US has been leading efforts to pass state laws outlawing sales of endangered wildlife, which to date includes, but is not limited to,

California, Washington, Oregon, and Hawaii.

According to a 2016 poll by KRC Research for WildAid, more than 80 percent of the US public supports wildlife conservation measures, but only one in five know anything about the illegal wildlife trafficking and trade problem here. When asked to rank the issue in terms of importance, ending illegal wildlife trade ranks highly, together with water conservation and general wildlife conservation, and ahead of reducing the effects of climate change and strengthening environmental protections.

In our online research, we found four advertisements of tortoiseshell products for sale in the US, which were primarily antique products sold on eBay. See the Online Trade section on page 71 for more information.

MONTEREY BAY AQUARIUM STUDY (2019)

Sea turtle parts are the most commonly intercepted products by customs agents from tourists returning home from the Caribbean. Seizure records at US ports of entry revealed trafficked hawksbill sea turtles or parts arrived from 72 countries on 352 occasions from 1999 to 2018. Of the 20 countries with the most hawksbill seizures, 14 were also historical turtle exporters. The most frequently used transportation mode was air cargo, followed by personal accompanying baggage and mail. Seventeen of 352 seizures arrived by ocean cargo, indicating that much of the modern global trade has shifted from sea to air transportation.

The majority of hawksbill sea turtle products (roughly 65 percent) seized entering the US was raw, unprocessed whole turtle, carapace, or scutes, rather than carved tortoiseshell. Of the unprocessed records of varying sizes, 41 percent was from the Caribbean, Central America, and Mexico, indicating that the US may be a node for hawksbills transported from the western hemisphere to Asia.

ANECDOTAL INFORMATION

- In October 2018, Keith Swindle of the US Fish & Wildlife Service stated that tortoiseshell products are likely to be found in Hawaii, primarily at flea markets and swap meets (Pers. comm.). Sales in Hawaii are probably most often resale of collected items from estate sales or from Micronesians and other Pacific Islanders that reside in the state. These residents bring these products with them as immigrants or acquire it via mail or by personal baggage from familial relationships and then craft locally or simply sell the finished items sent to them. Once these items are inside the US, the burden is on federal enforcement officials to prove they were illegally imported and not brought or given prior to their sale being illegal.

- Federal seizures are typically trinkets (jewelry) or an occasional small carapace found in the US mail that are being sent to US citizens from residents or relatives in Micronesia or were purchased during travel in the Pacific and then mailed back to themselves. These items are generally found during border inspections of incoming mail. U.S Fish and Wildlife Service does not see high volume shipments, just many individual items like earrings, combs, and bracelets. Recent changes to Hawaii state law make the 'possession with intent to sell' of products made of a variety of species (including sea turtles) illegal. These violations are now enforceable by State Conservation Officers, or by the US Fish and Wildlife Enforcement Officers when interstate commerce is involved.

- According to data from Japanese imports in the Monterey Bay Aquarium study, the US exported 4,401 kilos of tortoiseshell (9,682 lbs) to Japan between 1884 and 1990.

MINOR/ANECDOTAL SALES

MEXICO

LEGAL STATUS:

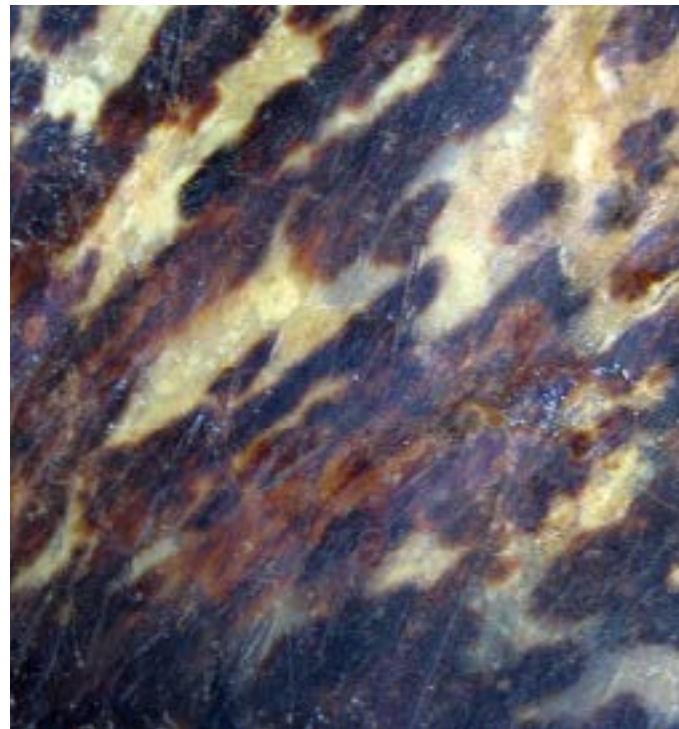
Illegal to sell or possess sea turtle products.

PRODUCTS OBSERVED SINCE 2017: None**MOST RECENT DATA AVAILABLE:** None**LOCAL ORGANIZATIONS WORKING ON THE TRADE:**

None that we are aware of

There are no reported sales of tortoiseshell products in Mexico from conservation organizations or travelers. According to data from the US Fish and Wildlife Service, from 2007 to 2017, there were a total of eight seizures from Mexico of 16 hawksbill products including carapaces, jewelry, and trophies. This was the second highest number of seizures from any country, though it is not clear if the products all originated in Mexico or were passed through the country on route to the US.

According to data from Japanese imports in the Monterey Bay Aquarium study, Mexico exported 2,068 kg of tortoiseshell (4,550 lbs) to Japan between 1973 and 1990.



COUNTRY REPORTS: ASIA

CHINA

LEGAL STATUS: Illegal to sell or possess sea turtles or products.**MOST RECENT DATA AVAILABLE:** 2019**LOCAL ORGANIZATIONS WORKING ON THE TRADE:**

- WildAid
- Traffic
- Guangxi Biodiversity Research and Conservation Association
- Sea Turtles 911
- Global Environment Institute

China has emerged as a major source for illegal tortoiseshell sales as Japan has declined as an importing country. Despite the action taken by the Chinese government detailed below, there is evidence in a number of countries that Chinese citizens traveling abroad purchase these products to bring back to the country, including Laos, Viet Nam, Tanzania, Zanzibar, and Angola (see individual country reports for more information). As this report goes to publication, the Chinese government is considering major changes to the wildlife trade laws due to fears that the corona virus came to humans from wildlife, though it is not clear whether these changes will affect the tortoiseshell trade, which is already illegal in the country.

SEA TURTLES, AN UNCERTAIN FUTURE: WILDAID (2018)

WildAid is working with the Chinese government to research and combat the trade in sea turtles in the country and to address demand for these products. In their report, the organization reviewed available information on the sea turtle trade and surveyed Chinese citizens on their views related to attitudes toward this trade. Of the 1,500 people surveyed, 17 percent of respondents had purchased sea turtle products and another 22 percent are considering making a purchase in the future. The majority of both categories strongly preferred jewelry products primarily made from hawksbills, and nearly half of the consumers purchased the products as souvenirs at domestic shops.

Sea turtles in Chinese waters have long been depleted, shifting the primary source of this trade to the waters of the Coral Triangle (the waters of Indonesia, Malaysia, Papua New Guinea, Philippines, Solomon Islands, and Timor-Leste). Numerous seizures of turtle products on their way to China have been made over the past decade, making China's role as a key consumer of these products clear. In addition, sea turtle products are smuggled overland across the border with Viet Nam. Between 2013 and 2017, 10 seizures have been recorded, with an estimated total of more than 1,200 sea turtles, among other items, headed for either China or Viet Nam. Tourists bringing home tortoiseshell souvenirs from abroad is also an issue of concern.

According to WildAid, hotspots for the sale of sea turtle products are found throughout the island

province of Hainan and coastal cities frequented by tourists in southern China. These products can also be found in major cities across the country, including Beijing. A CCTV special report in June 2015 on the hawksbill retail scene in Tanmen, Hainan revealed that there was a thriving market for whole hawksbill taxidermies and smaller products on the town's arts and crafts shopping street, with taxidermies selling for 8,000 to 19,000 RMB per piece depending on size (roughly US \$1,000 to 2,500).

However, this active retail scene is reported to have been impacted by a recent ban and crackdown on the sale of giant clams. In Sanya, Hainan Province's most popular tourist destination, the sale of hawksbill products occurs in tourist souvenir shops including the Jiefang Road Pedestrian Shopping Street, and at seafood restaurants. There have been multiple cases of confiscated hawksbill products at Sanya Airport, from tourists returning to other parts of China. The pattern is similar in Haikou and Beihai, where shops selling these products are concentrated on pedestrian streets frequented by tourists.

Encouragingly, according to WildAid, Chinese authorities have listed sea turtles as a priority conservation species and have a renewed interest in restoring habitat and combating the illegal trade in sea turtle products. The government partners with WildAid on massive public awareness campaigns and destroyed confiscated sea turtle products at a ceremony in 2018.

Additional information can be found in the Online Research section.

PREVIOUS STUDIES

MARKET FORCES: AN EXAMINATION OF MARINE TURTLE TRADE IN CHINA AND JAPAN: TRAFFIC (2011)

According to this report from TRAFFIC East Asia in 2011, the sea turtle trade in China at the time was centered on the domestic demand for ornamental whole specimens (stuffed or mounted) and tortoiseshell jewelry, as well as hawksbill scutes for use in traditional Chinese medicine. Researchers surveyed souvenir shops across the country's eight provinces and three municipal cities and 117 were observed to sell sea turtle products while eight traditional Chinese medicine wholesale shops were found to sell hawksbill tortoiseshell. No sea turtle products were observed in Pinxiang (Guangxi Province), Jiangmen (Guangdong Province), or Fuzhou (Fujian Province).

A total of 94 hawksbill specimens and 7,217 processed hawksbill shell products were observed for sale in souvenir shops during this survey. An additional 159 kg (72 lbs) of hawksbill scutes were found for sale in medicinal shops. Among the locations surveyed, Hainan Province (Sanya, Qionghai, and Haikou) accounted for the highest number of shops selling sea turtle products (49 percent) as well as the highest number of observed items made from processed hawksbill turtle (67 percent). The city of Beihai in Guangxi Province followed, accounting for 16 percent of shops and 23 percent of observed items. Beihai also had the highest number of whole hawksbill carapaces available, which accounted for 43 percent of the observed trade.

Beihai is a large port city at the southern tip of Guangxi Province, immediately to the north of Hainan. Four antique or tourist souvenir markets and two wet markets (markets where live or dead animals are sold) were visited during this survey. A total of 1,726 tortoiseshell items were seen displayed in 19 retail outlets. Sanya had the largest retail markets among the three surveyed cities in Hainan. There were 1,849 sea turtle products found in 20 shops mostly located in four different markets. Most of them

were retail shops selling ornaments and souvenirs, except for one vendor that operated as a wholesale shop supplying processed products mainly to the city of Shanghai. In Haikou, 467 items of sea turtle products were displayed in 12 shops in four different antique and tourist markets. Qionghai, unlike Sanya and Haikou, was not a popular tourist destination, but had the largest number of sea turtle products recorded. A total of 25 shops in Tanmen Town were found to display 2,500 sea turtle products for sale.

ANECDOTAL INFORMATION

- According to data from Japanese imports in the Monterey Bay Aquarium study, China exported 44,343 kilos of tortoiseshell (97,555 lbs) to Japan between 1882 and 1986.

INDONESIA

LEGAL STATUS: Illegal to sell or possess sea turtles or products.

PRODUCTS OBSERVED SINCE 2017: 424 (plus online figures noted)

MOST RECENT DATA AVAILABLE: 2019 (Turtle Foundation, unpublished, and CITES)

LOCAL ORGANIZATIONS WORKING ON THE TRADE:

- Turtle Foundation
- WWF Indonesia
- PROFAUNA Indonesia
- Yayasan Penyu Indonesia

Indonesia has historically been one of the primary countries involved in the tortoiseshell trade. Based on seizure data and anecdotal information, the country still appears to be a major source of shells for the illegal international trade, with many of the shells going to Viet Nam or China. The online domestic trade is still significant, with hundreds or thousands of products available for sale at any one time. The domestic in-person trade appears to have significantly declined, though products can still be found in some places around the country in jewelry and souvenir shops.

The Turtle Foundation, in partnership with PROFAUNA Indonesia and with financial support from Too Rare To Wear, conducted research on the island of Bali from May to September 2019. Researchers found that hawksbill shell is used for special jewelry where some of the products are a combination of tortoiseshell with gold and silver. The products are worn by local women as part of their festive clothing, for instance when they attend religious Hindu ceremonies. Bali is well-known in Indonesia for these products. Domestic travelers appear to be the primary market for tortoiseshell products as opposed to international travelers.

Of the at least 340 shops visited on the island, turtle products were found at 23 of them (about 6.7 percent). At least 417 products were counted, primarily jewelry such as earrings, bracelets, pendants, brooches /pins, hair combs, hair clips, and hand fans. Turtle Foundation collaborators visited Sukawati Village, which is known as the “heart of Balinese gold and silver jewelry production.” This popular tourist location offers people the chance to see how these products are crafted. In 22 shops visited, tortoiseshell items were found for sale in 13 of them. Other places where multiple shops were found selling tortoiseshell included Denpasar (five shops) and Dalung (three shops).

The cost of these products ranged from 50,000 IDR to 1 million IDR (from US \$3- 70). When asked, sellers claim that the products are from old stock before it was made illegal to sell them. Some claimed that once they sell their current stock, they will not offer more tortoiseshell products. Other sellers did not say much about their products and knew that their sale was illegal. The research showed that these products were no longer sold in tourist spots and general souvenir shops.

CITES (2019)

Market surveys were conducted between April and July 2018 in the provinces of East Java and West Java (eight sites), Bali (30 sites), West Sumatra (11 sites), and North Sulawesi, Central Sulawesi, West Sulawesi, and Southeast Sulawesi. These sites included nesting beaches, hatcheries, tourist turtle attractions, local fisheries, ports, markets, and souvenir shops. Products on sale and their prices were recorded at these sites.

Out of 61 locations visited, turtle products were found on open sale at five sites among Southeast Sulawesi (two) and Bali (three). Ornamental items (taxidermied turtles or ornaments made with carapace) were found in two souvenir shops in Gianyar, Bali. The research also turned up two spots where tortoiseshell was sold in Southeast Sulawesi, specifically Wameo Market and Kamali Beach, where bracelets and rings were sold. In addition, two other places, Mentawai Islands and East Nusa Tenggara were reported to have significant numbers of shell products (in addition to other turtle products), though those places were not visited during this survey.

ONLINE SALES

During August and the first week of September 2019, Yayasan Penyu Indonesia surveyed 11 electronic platforms, nine specialized trade webpages and two social media networks. In total, 199 accounts selling tortoiseshell products were found, with a total of 1,574 separate advertisements. The research turned up at least 29,326 items available for sale. The total value of these products, as of October 2019, was approximately US \$34,486.

For the CITES report, an electronic survey was conducted during an hour per day for one month (15 July to 15 August 2018) to search for the online availability of sea turtle products on commercial portals and social media (Facebook). A total of 13 search terms were used among the languages English, Malay/Indonesian, and Mandarin. See the Online Trade section on page 71 for more information.

PREVIOUS STUDIES

Based on market observations by PROFAUNA in June 2015, more than 700 hawksbill carapace products were observed for sale in Berau, East Kalimantan. Prior to this, in October 2014, PROFAUNA reported the sale of hawksbill products in the same area to the authorities with sales subsequently decreasing. In June 2016, however, sea turtle products were once again evident for sale in the area. There were at least two seizure records in Kalimantan in 2016, comprising 135 souvenir products made of carapace and two taxidermied turtles.

SHELLED OUT? A SNAPSHOT OF BEKKO TRADE IN SELECTED LOCATIONS IN SOUTH-EAST ASIA: TRAFFIC (2004)

Seven souvenir shops were surveyed in September 2001: two of these were found to have small amounts of bekkos on offer (note: “bekko” is another name for tortoiseshell most often used in Asia). Of approximately 20 tourist shops surveyed, only one was found to have a small amount of items made from bekkos. All dealers in the shops, when asked if any products made from sea turtle were available, stated that they did not carry such items anymore, as it was illegal and marine turtles were protected.

Even the shop that did have some items (approximately 25 rings) stated that these were from old stock and that once they were sold they would not be replaced.

Over the past few years, staff there have developed a very strong working relationship with the police and together they have been very successful in 'cleaning up' the sea turtle product trade in Denpasar. Police have acted on all information regarding illegal trade provided to them by WWF and have carried out very extensive sweeps of dealers, markets etc., and confiscated all sea turtle products.

ANECDOTAL INFORMATION

- Marcy Summers of Alliance for Tompotika Conservation reported in June 2017 that tortoiseshell products were for sale in Jogjakarta and Makassar (Pers. comm.).
- According to data from Japanese imports in the Monterey Bay Aquarium study, Indonesia was historically the top exporter of tortoiseshell to Japan by a significant margin. Records show that between 1903 and 1987, a total of 1,141,245 kilos of tortoiseshell (2,510,739 lbs) were exported from the country.
- Too Rare To Wear has also received recent anonymous reports that tortoiseshell is being sold in significant quantities openly on the island of Nias. Products are reported in the capital city, Gunung Bawomatalou, as well as the towns of Sorake and Teluk Dalam.

VIET NAM

LEGAL STATUS:

Illegal to sell or possess sea turtle products.

PRODUCTS OBSERVED SINCE 2017: 199

MOST RECENT DATA AVAILABLE: 2019 (CITES)

LOCAL ORGANIZATIONS WORKING ON THE TRADE:

- Education for Nature Viet Nam
- Humane Society Viet Nam

Historically, Viet Nam was one of the top exporting tortoiseshell countries to Japan along with a thriving domestic market. Multiple reports have indicated a significant decline in both the exportation and domestic sale of these products. But according to recent data, the illegal sale of tortoiseshell still continues in several cities as well as online and the country now has a significant role as a stop along the trade route of hawksbills from the Coral Triangle through the country and smuggled by land into China.

Some of the world's largest seizures of hawksbills over the past few years have been Vietnamese fishing boats, including the largest seizure of hawksbills in decades, with an estimated 10 tons of shells confiscated in December 2014. This case stemmed from an investigation from Education For Nature Viet Nam (ENV) and resulted in jail sentences of four and a half years for two brothers who were infamous for this trade. They were the first major Vietnamese traffickers to be prosecuted and the organization believes it has had a significant impact on the smuggling of sea turtles into the country. [This National Geographic article has more information about this case.](#)

CITES (2019)

Market surveys were conducted by ENV at 436 markets, souvenir shops, and jewelry shops between January and April 2018 in the cities of Hanoi, Ha Tien, Ho Chi Minh City, Nha Trang, and Vung Tau. Sea turtle products were observed for sale in 39 of the 436 outlets surveyed. Nha Trang had the most shops selling these products (10 sites out of 118), followed by Ha Tien (at nine sites out of 41) and Ho Chi Minh City (nine sites out of 130), with Vung Tau having six shops (out of 50) and Hanoi having five shops (out of 88).

Most of the products for sale were made of hawksbill, with a small number of green turtle products. The products observed were mostly handicraft items, except for preserved specimens. Bracelets were the most frequently observed commodity (31 sites), followed by taxidermied turtles (15 sites). Total numbers of products found were not available due to ongoing investigations. ENV also conducted an online survey that found a total of 25 individuals (unique online accounts) selling marine turtle products online on 42 different advertisements or posts. Check out the Online Research section for additional details.

Similar findings were previously observed by TRAFFIC in 2016, 2017, and 2018 during physical market monitoring in Viet Nam, where at least 199 turtle products were for sale in five cities at 15 different sites during this period. Notably, 11 of those sites were observed offering sea turtle products on more than one occasion. All of the products observed were made of hawksbill, and most comprised either bangles or bracelets. This data was unpublished.

Wealthy Vietnamese believe that burying taxidermied sea turtles in their house's basement brings luck, while wearing sea turtle products treats low blood pressure. In addition to domestic demand, demand from Chinese nationals may be emerging. According to the Chinese Embassy in Viet Nam, the number of Chinese tourists travelling to Viet Nam, especially to Nha Trang and Da Nang, has risen tremendously over the last five years. Sources find that Chinese tourists often buy wildlife products including combs and hairclips made of carapace. Prosecuted individuals have claimed that they export large amounts of processed turtle products to wholesalers in China for local trade.

In 2016 and 2017, TRAFFIC observed 163 sea turtle products on the market in Viet Nam in Hanoi, Ho Chi Minh, Nha Trang, and Ha Long. All of the products were made of hawksbill turtle and included taxidermied turtles and handicraft items. In June 2018, 72 taxidermied sea turtles of various species were seized in Vung Tau after being on display at a shell-craft shop. Eleven of the sites visited had items for offer on more than one occasion.

PREVIOUS STUDIES

Based on market observations by PROFAUNA in June 2015, more than 700 hawksbill carapace products were observed for sale in Berau, East Kalimantan. Prior to this, in October 2014, PROFAUNA reported the sale of hawksbill products in the same area to the authorities with sales subsequently decreasing. In June 2016, however, sea turtle products were once again evident for sale in the area. There were at least two seizure records in Kalimantan in 2016, comprising 135 souvenir products made of carapace and two taxidermied turtles.

AN ASSESSMENT OF THE MARINE TURTLE PRODUCTS TRADE IN VIET NAM: TRAFFIC (2009)

TRAFFIC found a total of 5,846 turtle products in 84 retail outlets in eight localities surveyed. The most products were found in Ha Tien, followed by HCMC, Phu Quoc Island and Nha Trang. Hanoi had a negligible amount of sea turtle products, perhaps because government vigilance was higher there than elsewhere. A total of 769 souvenir and antique shops were visited, including markets, hotels and department stores, and 10.9 percent contained sea turtle products, a relatively high percentage considering that the material is illegal to sell. The most common items were jewelry, especially bangles (2,274 items) and rings (1,000), followed by various types of hair clips, pins and bands (987 pieces). A total of nine bekko processing workshops were found during the surveys, employing at least 26 people. All of the sea turtle processing workshops were found in the south of the country.

SHELLED OUT? A SNAPSHOT OF BEKKO TRADE IN SELECTED LOCATIONS IN SOUTH-EAST ASIA: TRAFFIC (2004)

Forty-three shops were visited in Ho Chi Minh City, encompassing the range from tourist souvenir shops, art and craft shops, opticians and jewellers, to specialized bekko traders. Of these shops, 21 offered bekko artefacts or stuffed turtles for sale. At the time of the survey in 2002, 10 families were reported actively to be manufacturing hawksbill turtle products and there were three main dealers said to be operating in Ha Tien. There were three outlets observed selling wildlife products during the visit in 2002, but two of them were very small, having fewer than 100 hawksbill turtle articles each, mostly hairclips and bracelets.

ANECDOTAL INFORMATION

- As noted in the section on Haiti (page 33), in July 2017, officials at the Charles De Gaulle airport in France seized nearly half a ton of hawksbill shells, in cartons sent by air freight from Haiti on the way to Viet Nam. The shells were from an estimated 380 hawksbills and had an estimated sale value of US \$350,000.
- According to an article in The Guardian (November 2014), Viet Nam's environmental police seized a record of more than 1,000 dead sea turtles which were being prepared for export to China. The raid was at the resort town of Nha Trang and according to authorities, the shells were destined to be made into handicrafts. It was not clear in [the article how many of these turtles were hawksbills](#).
- According to data from Japanese imports in the Monterey Bay Aquarium study, Viet Nam was historically one of the top exporters of tortoiseshell to Japan. Records show that between 1894 and 1986, a total of 100,237 kilos of tortoiseshell (220,521 lbs) were exported from the country.

JAPAN

LEGAL STATUS:

Legal to sell tortoiseshell products domestically.

PRODUCTS OBSERVED SINCE 2017: Not Available

MOST RECENT DATA AVAILABLE: 2011

LOCAL ORGANIZATIONS WORKING ON THE TRADE:

- Japan Tiger & Elephant Fund
- Japan Wildlife Conservation Society
- Humane Society International

As the country most responsible for the worldwide trade in tortoiseshell over the past two centuries, Japan

warrants consideration both for its historic role in the decline of hawksbill populations worldwide as well as its continued legal domestic trade. The tortoiseshell trade in Japan and Europe began in the 1600's and Japanese carvers gained a reputation as the most skilled artisans. According to the recent Monterey Bay Aquarium study by the estimated the imports of bekko to the country from 1844 to 1992 to be nearly 9 million individual turtles, which caused a dramatic decline in hawksbill populations around the world, resulting in the current "critically endangered" status. Japan was responsible for up to 80 percent of this trade.

MASAYUKI SAKAMOTO OF THE JAPAN TIGER & ELEPHANT FUND PROVIDED THE FOLLOWING REPORT (MARCH 2020)

As a result of Japan's withdrawal of their reservation on importing hawksbill shells, the stockpile of tortoiseshell owned by the bekko manufacturers decreased by nearly half from 188 tons in 1995 to 102 tons in 1998. After that time, according to the information provided by the Ministry of Economy, Trade and Industry (METI), the amount of the stockpile at each end of fiscal year had changed either a very small amount year over year and then finally dropped to about 28 tons in 19 years (in 2017). This lack of a significant decline in the stockpile was totally unexpected even by METI, which in 2001 predicted that the stockpile would last 10 years.

Japanese law does not require their customs officials to confiscate illegal imports of CITES restricted products; instead they determine if an investigation needs to be opened in cases where a criminal penalty is required. If a penalty is not required, the products are shipped back to the exporter. The official customs statistics of suspensions of imports of hawksbill shells shows a trend that can be interpreted as responding sharply to the bekko manufacturers' insecurity about the stability of their businesses. The annual average number of import suspensions reached more than 10 between 1994 and 2000, when the manufacturers feared about the future of the bekko industry due to the withdrawal of the reservation.

Then, after 15 years of few or no suspensions, the number sharply increased to 7 in 2016, 12 in 2017, and 8 in 2018. Even in 2019, 6 cases of illegal imports of bekko shipped by Express Mail Service (provided by Japan Post) were found at Japanese customs between February and October. Most of the export countries identified in those recent cases are identified as the Dominican Republic and Haiti. The sudden increase of import suspensions seems to reflect the fear and impatience of bekko manufacturers, which are caused by the decline of the official stockpile and termination of the government subsidy to the Japanese Bekko Association at the end of fiscal year 2016 (March, 2017).

PREVIOUS STUDIES

MARKET FORCES: AN EXAMINATION OF MARINE TURTLE TRADE IN CHINA AND JAPAN: TRAFFIC (2011)

Research completed by TRAFFIC East Asia in 2011 found 11,080 bekko items for sale in 58 shops visited in Tokyo, Nagasaki, and Okinawa between 2000 to 2008. Of the three cities, Nagasaki was found to have the highest number of sea turtle products for sale (60 percent), followed by Tokyo (35 percent) and a small amount found in Okinawa (5 percent). The bekko trade in Japan is comprised of finely crafted products, including jewelry, combs, glasses frames, and traditional ornaments.

Tokyo, Japan's capital, was found to have the largest number of bekko retail outlets; a total of 32 jewelry shops and souvenir shops, with 3,872 bekko items recorded. Most shops in the city only displayed a few items of each type in the showroom but stated that more stock was held in their storeroom and could be shown to customers on request. Consequently, the actual quantity of bekko available in Tokyo might be largely underestimated based on observed retail products. Unlike other surveyed cities, most Tokyo bekko shops were not located in tourist hubs and were found in craft-oriented areas of the city. Large bekko shops usually had their own workshop and craftsmen.

Surveys conducted in 2004 among traders and artisans across the country found that levels of tortoiseshell stocks and sales were not diminishing, possibly due to illegal importation from Papua, Indonesia and other Asian countries such as Papua New Guinea, transiting through Singapore. The largest seizures from Indonesia included the confiscation of 89 kg (2003) and 400 pieces (2004) of shells, adding to many other packages smuggled by mail and by air.

ANECDOTAL INFORMATION

- According to a personal communication from Rebecca Regnery of the Humane Society International, there may be exportation of tortoiseshell from Japan to India, which would be illegal under CITES regulations.
- Based on reports from Tokyo Customs, there were two seizures of tortoiseshell in 2018; one of 6.5 kg (about 14 lbs) and another of 9.9 kg (about 22 lbs).
- According to data from Japanese imports in the Monterey Bay Aquarium study, Japan imported 3.4 million kilos (7.48 million lbs) of tortoiseshell between 1869 and 1992, when the country ended their exception.
- Two tortoiseshell products were found for sale in our online research (though Japan was not our focus); these products were antiques. See the Online Trade section on page 71 for more information.

MINOR / ANECDOTAL INFORMATION

MALAYSIA

LEGAL STATUS:

Illegal to sell or possess sea turtles or products.

PRODUCTS OBSERVED SINCE 2017: 1 (online)

MOST RECENT DATA AVAILABLE: 2019 (CITES)

LOCAL ORGANIZATIONS WORKING ON THE TRADE:

None that we are aware of

Malaysia historically was one of the largest exporters of tortoiseshell to Japan according to multiple reports. Reports by the Indian Ocean and South-East Asia Memorandum of Understanding on the Conservation and Management of Marine turtle (IOSEA, 2014) and Stiles (2008) also confirmed Malaysia's role as a key source of hawksbills to China and Viet Nam.

CITES (2019)

According to the CITES report, there does not appear to be much demand for tortoiseshell products or stuffed turtles in Malaysia. Researchers conducted market surveys between April and June 2018 in the states of Sabah, Sarawak, Terengganu, and Melaka, as well as online surveys from July to August 2018. During this time, no in-person trade was observed. For the online trade, one tortoiseshell bracelet was found for sale.

However, turtle researchers from WWF-Malaysia and University Malaysia Terengganu (UMT) reported that the town of Semantan, which is considered to be an active trading location for illegal wildlife products, was also known to trade in sea turtle products. However due to time constraints, this location could not be surveyed in time for this study but should be considered for future surveys.

ANECDOTAL INFORMATION

• According to data from Japanese imports in the Monterey Bay Aquarium study, Malaysia was historically one of the top exporters of tortoiseshell to Japan. Records show that between 1902 and 1984, a total of 204,362 kilos of tortoiseshell (449,596 lbs) were exported from the country.

PHILIPPINES

LEGAL STATUS:

Illegal to sell or possess sea turtles or products.

PRODUCTS OBSERVED SINCE 2017: 1 (online)

MOST RECENT DATA AVAILABLE:

2018 (seizure information below)

LOCAL ORGANIZATIONS WORKING ON THE TRADE:

None that we are aware of

According to multiple reports, the Philippines is a major source of hawksbill shells for other countries including China and Viet Nam but there does not appear to be a current significant domestic market for these products.

SEA TURTLES, AN UNCERTAIN FUTURE: WILDAID (2018)

On the Filipino side, the remote southwestern island of Balabac has become a center for the gathering and distribution of poached turtles. Poaching and selling hawksbill turtles provides additional income for impoverished local fishing communities.

SEIZURE INFORMATION (SOURCES LISTED BELOW):

- In July 2017, authorities intercepted a boat carrying 70 dead hawksbill turtles off the coast of Dumaran town in northern Palawan. The vessel was reportedly bound for Balabac, an island town in southern Palawan. The animals had been collected from Barangay Mayteged, Taytay, in northern mainland Palawan. (Source: [Rappler](#))
- In October 2014, a businesswoman whose company was allegedly involved in a smuggling attempt was arrested and released on bail. The smuggling was of roughly 41 tons of protected marine species detected at the port of Manila in 2011. The case involved two containers declared to be transporting rubber that were found to be loaded with 163 green and hawksbill turtles. (Source: [TRAFFIC](#))
- In May 2014, authorities seized 555 sea turtles from a vessel off Palawan Island, including hawksbills and green turtles. The turtles had reportedly been caught by Filipino fishermen and delivered to a Chinese vessel. A local fishing boat was apprehended at the same time with 70 turtles on board. (From [Robin des Bois, On the Trail No. 7](#))
- In January 2012, scales from some 40 hawksbill and green turtles along with 100 pangolins contained in four boxes were seized by the Philippines National Police (PNP) Aviation Security Group at Puerto Princesa airport, Palawan. (Source: [TRAFFIC](#))

- In May 2011, the prime suspect in the foiled smuggling of corals, sea turtles, and other marine resources at the Port of Manila surrendered to the authorities. The consignee of two container vans loaded with the items that were about to be exported to China and to Europe told the authorities that he would help identify other persons involved. The shipment was reported to include 161 preserved hawksbills and green turtles. (Source: TRAFFIC)

ANECDOTAL INFORMATION

- According to data from Japanese imports in the Monterey Bay Aquarium study, the Philippines was historically one of the top exporters of tortoiseshell to Japan. Records show that between 1898 and 1987, a total of 231,107 kilos of tortoiseshell (508,435 lbs) were exported from the country.

MINOR / ANECDOTAL INFORMATION

LAOS

In a news article on the website The News Lens (June 2017) about Laos' black market for ivory products, the San Jiang Market, which is close to Wattay International Airport, sells a number of illegal wildlife products including hawksbill carapaces. Though hawksbill is not mentioned, the article notes that illegal wildlife products can be found in luxury hotels and around Vientiane's downtown. The shops are primarily owned by Chinese citizens who market their products for Chinese travelers to bring across the border. The article also notes that Laos has received "numerous sanctions for its inability to enforce (CITES) provisions." The Freeland Foundation has studied the illegal wildlife trade in the country but did not have any information on tortoiseshell products.

In addition, an article for The Ecologist (October 2011) mentions tortoiseshell bracelets for sale at a night market, as well as turtle shells with pictures of the Buddha painted on the back (it was not clear if the shells were hawksbill from the article). These articles and the known illegal wildlife trade in the country warrant additional investigation to determine the extent of the tortoiseshell trade in Laos.

THAILAND

From May to December 2018, team members of ProTECTOR, Inc. intermittently surveyed and mapped tourism areas, open markets, and handicraft shops along most of the east coast of the Gulf of Thailand. This area has some of the most popular tourism areas in the Gulf, including Laem Chabang, Pattaya, and the island of Koh Lan. During surveys, Thai members of the ProTECTOR, Inc. team asked shop keepers and market sellers if they had any stocks of hawksbill shell jewelry or sea turtle products for sale.

The most common reply to team members was that the selling of hawksbill shell products had been strictly outlawed, and since the government had banned the sale of such items, they had no intention of selling turtle products any longer. Despite the wide recognition of the ban by local shop keepers and market sellers, some community members in non-touristic villages did report that a minor black market for turtle eggs and meat still existed, but few had reported hearing of hawksbill curios for sale, even in these black markets.

TAIWAN

No current information is available on the tortoiseshell trade in Taiwan. In Lam et al (2011), a total of 6,348 turtle items were seized between 2000 and 2008 in Taiwan (Province of China), including 6,120 tortoiseshell items. This past abundance of products warrants additional investigation.

COUNTRY REPORTS: AFRICA

MADAGASCAR

LEGAL STATUS:

Illegal to possess or sell endangered animals.

PRODUCTS OBSERVED SINCE 2017: None

MOST RECENT DATA AVAILABLE: 2019 (CITES)

LOCAL ORGANIZATIONS WORKING ON THE TRADE:

None that we are aware of

CITES (2019)

Sea turtle carapace products (either full carapaces or handicrafts) were observed in three locations across three regions: in the village of Ambohibola (Antisimo-Andrefana), Nosy Be (Diana) and Mahajanga (Boeny). These locations comprised the home of a fisher woman (who bought the product in the capital city, Antananarivo, to use as a template for making similar products), a shop at an airport, and a bazaar in a tourist market. Turtle carapaces were found to be used for making jewelry, but also often repurposed for animal sheltering or to store animal feed or scraps in villages.

Hawksbill turtles were rare in fisheries catch records, suggesting a minor role of handicraft products in the trade. Only 19 of 153 (12 percent) of respondents interviewed by researchers indicated that carapace products were traded and 14 of these indicated the trade was minimal or decreasing. Marine biologist Jess Williams of Tartarugas para o Amanha (TPA) noted additionally that more surveys need to be completed in Antananarivo.

The researchers conducted a rapid electronic survey for online sales in May 2018. No sea turtle products sourced from Madagascar were found in the study. It is possible that this type of trade is not of concern in Madagascar, as there is a lack of internet access throughout many areas where sea turtles are landed. Informants at the management level suggested that international trade is unlikely to be substantial given the high local demand for turtle meat and products. There was no evidence found in the study to indicate that international trade in sea turtles is substantial or an organized activity in Madagascar.

ANECDOTAL INFORMATION

• According to data from Japanese imports in the Monterey Bay Aquarium study, Madagascar exported 36,459 kilos of tortoiseshell (80,210 lbs) to Japan between 1863 and 1986.

MOZAMBIQUE

LEGAL STATUS:

Illegal to hunt sea turtles, possess or export their products.

PRODUCTS OBSERVED SINCE 2017: 200+

MOST RECENT DATA AVAILABLE: 2019 (CITES)

LOCAL ORGANIZATIONS WORKING ON THE TRADE:

Turtles for Tomorrow

CITES (2019)

Tortoiseshell products were detected in craft markets in Pemba (Cabo Delgado) and Vilankulo (Inhambane). In Pemba, in a single tourist craft/art market store, more than 200 pieces of hawksbill shell products were found (earrings, rings, bracelets, glasses frames, and an ashtray). Artisanal fishers report not having the skills for making these products, but the Makonde (an ethnic bantu group present in northwestern Mozambique) are known for these kinds of handicrafts, which suggests that there is intercity trade.

The present research into online trade was unable to identify the sale of sea turtle products. It is possible that this type of trade is not of concern in Mozambique, as there is a lack of internet access throughout many areas where turtles are landed. The sale of turtle carapace products was found to take place in tourist craft markets in both the north and south of the country.

ANECDOTAL INFORMATION

• In October 2019, Jess Williams of TPA reported that there are new craft shops open in the Praia do Tofo area selling tortoiseshell bracelets, similar to those observed in Pemba and Zanzibar (Pers. comm.). One shop assistant explained they were sourced from Vilankulo (Inhambane). There were 15 items available for sale.

• According to data from Japanese imports in the Monterey Bay Aquarium study, Mozambique exported 1,784 kilos of tortoiseshell (3,925 lbs) to Japan between 1882 and 1986.

MINOR / ANECDOTAL INFORMATION

TANZANIA

LEGAL STATUS:

Illegal to hunt sea turtles or possess or export their products.

PRODUCTS OBSERVED SINCE 2017: None

MOST RECENT DATA AVAILABLE: None

LOCAL ORGANIZATIONS WORKING ON THE TRADE:

· Sea Sense

According to Lindsey West, Director of Sea Sense (Pers. comm. January 2019), the wildlife trade in the country has changed due to the highly publicized ivory trade. There is now more awareness among immigration staff and signage at the airport alerting tourists that the trade is illegal. However, due to a now much larger presence of Chinese workers in the country, there are reports of requests of various marine species from these workers, including for sea turtles. This assertion is backed up by a report of a package of a half a kilo of hawksbill shell sent from Tanzania that was confiscated at the Chinese border (WildAid, 2018).

CITES (2019)

Interviews with fishermen in Cabo Delgado confirmed that illegal international trade in live specimens from Mozambique to Tanzania occurs. According to an elderly respondent, Tanzanians would place an order with Mozambican fishers, who would use jarifa nets at night, catching up to 50 turtles. Turtles would then be sent to Mtwara (the closest Tanzanian city across the border), where they would reportedly sell for greater value than in Mozambique. (Note: it was not clear from the report if this trade was specifically related to the tortoiseshell trade.)

PREVIOUS STUDIES

THE MARINE CURIO TRADE IN DAR ES SALAAM, TANZANIA: SEA SENSE (2012)

According to this report, customers of Asian origin were observed purchasing hawksbill scutes and bangles made from tortoiseshell. In addition, Sea Sense staff were offered carapaces from four vendors at the Dar es Salaam fish market in Kigamboni.

ANECDOTAL INFORMATION

• According to data from Japanese imports in the Monterey Bay Aquarium study, Tanzania was a major exporter to Japan, exporting 76,490 kilos of tortoiseshell (168,278 lbs) to Japan and Hong Kong between 1952 and 1986.

ZANZIBAR

LEGAL STATUS:

Illegal to hunt sea turtles or possess or export their products.

PRODUCTS OBSERVED SINCE 2017: 45

MOST RECENT DATA AVAILABLE:

2017 (Jess Williams, unpublished)

LOCAL ORGANIZATIONS WORKING ON THE TRADE:

None that we are aware of

JESS WILLIAMS OF TURTLES FOR TOMORROW (MOZAMBIQUE) PROVIDED THE FOLLOWING REPORT (PERS. COMM. MAY 2017):

While wandering amid the maze of Stone Town alleys admiring beautifully carved doors, I stumbled across the most magical curio-trinket-antiques store filled with genie lamps, wooden chests laced with embossed metal trimmings, gems, and silver jewelry. A group of men came in and the two shopkeepers immediately reached for something in a cloth bag out a cupboard in the store. They laid down a circular brass tray on the floor and proceeded to pour out of the bag many tortoiseshell bracelets. The men apparently were visiting doctors from China and come in each week specifically to buy the tortoiseshell products. They were collecting a small stockpile to take back home for family and friends and potentially resell.

The shopkeeper explained to the men that it was getting harder to find high-quality tortoiseshell, and despite this, the men chose two pieces. They haggled the price down to 30,000 Tanzanian shillings (roughly US \$15) and left. The turtle products were swiftly packed away and moved out of sight. The shopkeeper was completely honest and open to discuss the tortoiseshell products. She described the fishers catching turtles, cutting out the meat and chopping off the carapace. She explained how the keratin pieces are heated up to bend the scutes into a single bangle/cuff shape. The turtle shell is then sanded, buffed, and polished into the smooth, delicate, and glossy product the Chinese men keenly sought after.

EGYPT

LEGAL STATUS:

Illegal to hunt sea turtles or possess or export their products.

PRODUCTS OBSERVED SINCE 2017: None.

MOST RECENT DATA AVAILABLE: 2015.

LOCAL ORGANIZATIONS WORKING ON THE TRADE:

· Medasset

According to the 2016 report by Medasset, New Observations of Sea Turtle Trade in Alexandria, Egypt, on 22 occasions during September 2014 to March 2015, trade was directly observed at two artefact shops in the Anfoushi area. Four shells of hawksbill turtles from the Red Sea were observed on sale as artefacts. Two sea turtle shells (species not identified) were reported in El Medan fish market; they could have been green or loggerhead turtles, as those were also observed for sale in the country.

SEYCHELLES

LEGAL STATUS:

Illegal to hunt sea turtles or possess or export their products.

PRODUCTS OBSERVED SINCE 2017: None

MOST RECENT DATA AVAILABLE: None

LOCAL ORGANIZATIONS WORKING ON THE TRADE:

· Marine Conservation Society of Seychelles

Historically, the Seychelles was one of the larger exporters of tortoiseshell to Japan and other countries. According to Jeanne Mortimer in an abstract published in the proceedings of the 19th International Sea Turtle Symposium, "In 1993, as a first step towards banning all domestic trade in hawksbill products, the Government (of Seychelles) devised and implemented the Artisan Training and Compensation programme that provided financial assistance to hawksbill artisans to help them find alternate livelihoods. A component of that programme was Government purchase of the raw hawksbill shell still in the possession of the artisans. In 1994, a law was passed providing complete legal protection for sea turtles and banning all commercial trade in turtle products."

In November 1998, the government, in conjunction with the Miss World Pageant that was being hosted that year, publicly burned the stockpile of shells it had purchased in 1993.

ANECDOTAL INFORMATION

- In March 2013, a woman from Seychelles was sentenced to three months in jail in Singapore after being caught with 60 kilos (27 lbs) of hawksbill turtle shells in her luggage by the Singapore customs authority. A Singapore newspaper, the Strait Times, reported that the shells were discovered by Immigration and Checkpoints Authority officers at Changi Airport. ([link](#))
- According to data from Japanese imports in the Monterey Bay Aquarium study, Seychelles exported 88,042 kilos of tortoiseshell (193,692 lbs) to Japan and elsewhere between 1894 and 1985.

ANGOLA

According to the WildAid Report Sea Turtles: An Uncertain Future (2019), an arts and crafts market in the country that targets Chinese customers sells whole taxidermied hawksbills. No other information was found on the trade in this country.

COUNTRY REPORTS: OCEANIA

SOLOMON ISLANDS

LEGAL STATUS:

Legal to catch for subsistence, illegal to sell products.

PRODUCTS OBSERVED SINCE 2017: Not Available

MOST RECENT DATA AVAILABLE:

2019 (The Nature Conservancy)

LOCAL ORGANIZATIONS WORKING ON THE TRADE:

· The Nature Conservancy

Fundación Tortugas del Mar has been carrying out studies of tortoiseshell sales in the coastal city of Cartagena since 2008. Too Rare To Wear has been providing financial support for research and outreach since 2017. Since Endangered Souvenirs was published, the Fundación has continued surveys in Cartagena and has expanded those surveys to the islands of San Andres and Providencia, as well as the coastal cities of Santiago de Tolu, Coveñas, Rincon del Mar, Santa Marta, Rodadero, and the capital Bogota.

A REPORT ON TURTLE HARVEST AND TRADE IN SOLOMON ISLANDS: THE NATURE CONSERVATION (2019)

Research by staff at the Nature Conservancy on the sea turtle trade in the Solomon Islands happened between October 2016 and May 2018. This research was completed by community monitors across the islands. They estimate that roughly 9,500 turtles are harvested annually in the Solomon Islands with a range of roughly 5,000 to more than 22,000 turtles per year. Of the more than 1,100 harvested sea turtles observed during the study period, roughly 25 percent were hawksbills (285).

The report notes:

- Hawksbill turtle products were far more likely to be illegally sold (32.3 percent) than green turtle products (12.1 percent). This difference can be largely explained by the trade in hawksbill shell, which was documented in three of the 10 communities surveyed but was only a common practice in Wagina.
- Some hawksbill shell is also sold to local carvers, and despite this being banned under the national fisheries policy, the sale of hawksbill jewelry is widespread in Solomon Islands.

The consumption of turtle meat and use of turtle shell in artwork and jewelry remain a central aspect of contemporary Solomon Islands culture. In the Wagina community, the shells of 87.5 percent of hawksbill turtles harvested were sold to local buyers who then sold them to Asian buyers in Honiara. Interviews with fishers indicate that there are two markets for hawksbill shell in the Solomon Islands: a local market which supplies carvers and shell money makers, and another market that appears to be international, with hawksbill scutes being purchased by Asian buyers before presumably being exported overseas. Some local carvers we talked to in Honiara openly complained about not being able to compete

with Asian buyers, who were paying a higher price for scutes than what they could afford. Fishers also provided reports of hawksbill scutes being sold to logging ships.

ANECDOTAL INFORMATION

- In June 2017, a traveler reported to Too Rare To Wear the sale of tortoiseshell products in the Solomon Kitano Mendana Hotel in Honiara. A photograph was provided, but the number of products for sale could not be determined.
- According to data from Japanese imports in the Monterey Bay Aquarium study, the Solomon Islands exported 91,909 kilos of tortoiseshell (202,200 lbs) to Japan between 1844 and 1992.

MINOR / ANECDOTAL INFORMATION

PAPUA NEW GUINEA

LEGAL STATUS:

Legal to catch sea turtles for subsistence, but illegal to sell turtle products.

PRODUCTS OBSERVED SINCE 2017: None

MOST RECENT DATA AVAILABLE: 2019

LOCAL ORGANIZATIONS WORKING ON THE TRADE:

None that we are aware of.

No recent information is available on the current tortoiseshell trade in Papua New Guinea, though a number of researchers believe there is a significant local trade. A local researcher confirmed that local craftsman purchase hawksbill carapaces to carve them into armbands, necklaces, and other products (Pers. comm.). More research is needed to determine the current trade, though some researchers believe that it could be dangerous to investigate. No further explanation was provided.

TRAFFIC BULLETIN (2009):

Jeff Kinch of the Secretariat of the Pacific Regional Environment Programme (SPREP) and Elizabeth Burgess of the University of Queensland surveyed markets throughout Papua New Guinea in 2009 and found a total of 1,441 sea turtle products for sale, most of which were jewelry. Ninety-nine percent of the sea turtle products were made from hawksbill turtles.

Tortoiseshell has long been used by coastal and island villagers for a variety of utilitarian and decorative purposes and was an important trade commodity between indigenous inhabitants and European traders. Other uses of tortoiseshell include the manufacture of motifs (decorative designs in the form of Chinese dragons or bird-of-paradise—a national symbol of Papua New Guinea), and lime sticks.

ANECDOTAL INFORMATION

- According to data from Japanese imports in the Monterey Bay Aquarium study, Papua New Guinea exported 1,446 kilos of tortoiseshell (3,181 lbs) to Japan between 1938 and 1973.

PALAU

LEGAL STATUS:

Ten-year moratorium on hunting or trading sea turtles or products starting in 2017.

PRODUCTS OBSERVED SINCE 2017: None

MOST RECENT DATA AVAILABLE: None

In Palau, tortoiseshell has been used to make a traditional form of money, called “toluk.” In 2011, the country passed a five-year moratorium on the hunting of hawksbill turtles in the country. The initial moratorium imposed size limits and a hunting season. According to the United Nations Food and Agriculture Organization (FAO), a new ten-year moratorium was passed in 2017 that banned the taking of hawksbills of any size at any time, including for use for toluk, though it does not affect toluk previously made. There is no reported trade in tortoiseshell products other than toluk.

LOCAL ORGANIZATIONS WORKING ON THE TRADE:

None that we are aware of

TONGA

LEGAL STATUS:

There is a legal sea turtle hunting season for male sea turtles (excluding leatherback turtles) and no prohibitions on the sale of turtle products.

According to Karen Stone of the Vava’u Environmental Protection Association, turtle products (predominantly hawksbills) are displayed and sold at markets in Tonga (Pers. comm.). The products include carved carapaces and jewelry. The turtle is a status symbol for traditional feasts in Tonga. In addition, Too Rare To Wear received a report from a traveler in October 2018 about a carved carapace for sale in Tonga, along with photographic confirmation.

ONLINE TRADE

As in-person trade declines in many places, the tortoiseshell trade has moved online in large part to better hide identities or to reach larger (and wider) audiences. Tortoiseshell products can now be commonly found on online retailers and social media websites with marketplaces (such as Facebook and Instagram), or through online services through phone apps such as WeChat in places like China. According to research conducted by the Turtle Foundation (supported financially by Too Rare To Wear), Indonesia appears to be a major hotspot for the online trade, with nearly 30,000 products identified in a two-month study. Latin America also has a significant trade, primarily in cockfighting spurs, which appears to include shipping products across country borders in violation of CITES and national laws.

While the websites selling tortoiseshell products vary by region, the one constant across countries with confirmed trade is Facebook and its Instagram brand other than China where it is not allowed,. Facebook is engaging with Too Rare To Wear and other organizations (including ENV in Viet Nam) to remove these products, though their system for the general public to flag these illegal products does not appear to be very effective.

In the case of ENV’s work with Facebook in Viet Nam, they shared the following quote: “Facebook has been responsive in our efforts to address online suppliers of illegal wildlife such as sea turtles and parts and products in Viet Nam. While our initial efforts in dealing with online cases involve generating a law enforcement response, many suppliers are not easily identified, and others are advertising products that they do not have. ENV’s fallback position has been to have the links removed with a strong warning issued to the online trader, or to request that the site be deactivated by Facebook. Prior to this deactivation, ENV sends another strong warning to the supplier so that he or she understands why their social media page is deactivated. Our aim is to deter online sales of endangered wildlife. Just in the first three quarters



of 2019, ENV’s Wildlife Crime Unit has logged 519 cases comprised of 1,731 violations. Our current success rate in addressing these cases is about 80 percent.”

Online retailers are beginning to take steps to address the illegal wildlife trade in their products. This trade is now banned on the largest websites, though enforcement of these policies varies. eBay was the first website we were able to determine that created its own guide for recognizing tortoiseshell products. A group of companies and conservation organizations called the Global Coalition to End Wildlife Trafficking Online has formed, though attempts by Too Rare To Wear to engage with this effort have been unsuccessful to date. The coalition has a lofty goal of reducing online trafficking by 80 percent by 2020, though no information is publicly available about any advances to date.

METHODS

Our method of finding tortoiseshell products online involved using a series of keywords to collect information regarding illegal trade of sea turtle products, focused specifically on hawksbill items (tortoiseshell and/or its derivatives). We identified hawksbill products available online in order to collect data and to report it (flagged and/or banned the sellers) to webpage managers through public flagging systems. For the purpose of this report we summarized only product extracted from hawksbill turtles, although we found other sea turtle products on sale. The research was conducted in the US and Latin America by Hector Barrios-Garrido, and in Indonesia by the Turtle Foundation.



Information from online research conducted by ENV in Viet Nam is also included (summarized from the 2019 CITES report) as well as China (summarized from WildAid's 2019 report).

In order to identify these products, we used multiple key words in English, Spanish, and Bahasa (Indonesian). We tracked the products posted on multiple platforms including eBay, Instagram, Facebook, MercadoLibre.com, Pinterest, Shopee, and other non-specialized sale web pages (see details in results section). Although, we intended to create anonymous profiles (as opposed to personal ones) to avoid being identified as conservation practitioners, this proved to be impossible as all the platforms required a verified identity. As a result, we reported and/or flagged all the identified illegal products on sale, but we did not contact any seller, so that we could track ways to obtain the products, prices for potential retailers, and general markets, among other details, while avoiding identification of our researchers by the sellers.

Once the products were located online, the data collectors flagged the products which violated the websites' respective wildlife trade policies. Once the report was completed, we followed-up (within 15 days) to check:

- (a) time to act between report and any action from the retailer (such as whether the product was removed, the seller banned, or no action taken);
- (b) activity and profile of the identified seller; and
- (c) whether any restrictions to continue selling were placed on the sellers.

Our findings were focused on the Americas and Indonesia. However, some products on sale in the seller profiles were identified as originating in other countries (e.g. Spain, Japan, United Kingdom and China – see further details in the results section). In the case of Facebook Marketplace, the settings were changed multiple times to cover more countries and regions. The option of location-range was also changed up to 161 kilometers (the maximum distance permitted) and the price range was left open to maximize the number of products found.

MAIN FINDINGS

• US / LATIN AMERICA:

We found 47 tortoiseshell items in total during the survey. Most of them were reported or flagged (33 of 47); 14 products were not reported because some web pages do not have a clear reporting mechanism, specifically eBay because they base their policy on the reputation of the seller, and MercadoLibre.com due to the necessity of having a personalized email account associated with each country where the products are sold. See Table 1 for the list of websites and numbers of advertisements found.

TABLE 3: TORTOISESHELL ADVERTISEMENTS FOUND IN THE AMERICAS

CITY	SHOPS VISITED
Facebook Marketplace	33
eBay	5
Mercado Libre	2
Pinterest	1
Offer Up	1

Facebook Marketplace was the web page with the majority of advertisements registered during the survey, 33 in total, all of which were reported. Facebook has a straightforward process to report the product that requires the reason why the report is being made to be specified. During the survey, the reported products from Facebook Marketplace were marked as 'Animal Sale', which is forbidden in their policies. Of the 33 items reported only nine (27.2 percent) were actually removed from the platform within two months of the report being filed, and two of the products were marked as sold.

To their credit, Facebook has been working with Too Rare To Wear to directly receive reports of tortoiseshell products when found, and to date the company has been very responsive. Over the past two years, reported products have been taken down within 24 hours in most cases. What this research shows however, is that public reporting is not an effective way find and remove these products. We hope that Facebook and other online retailers work to improve their reporting process, speed and accuracy of determining which products are illegal tortoiseshell.

The prices of these products varied among platform, type of product, and their condition, ranging from US \$52 to \$200. It is important to note that in most cases the products were cockfighting spurs, so the actual value for one pair is likely to vary among our sample size as prices were for large packs of spurs. Bracelets, spurs, and jewelry were the only products registered for sale as tortoiseshell during our study. There is a significant portion of sales that consist of complex handbags, guitar picks, tortoiseshell boxes (typically Japanese-made), hair combs, and hairpins that were found on international websites. We searched 22 countries (Table 2) and in 13 found tortoiseshell items for sale on their platforms.

TABLE 4: TORTOISESHELL ADVERTISEMENTS FOUND IN THE AMERICAS

CITY	SHOPS VISITED
Costa Rica	13
Panama	9
Ecuador	6
Colombia	6
USA	4
Venezuela	3
Japan	2
Peru	1
Chile	1
Nicaragua	1
Brazil	None
Turks & Caicos	None
Belize	None
Guatemala	None
Mexico	None
Cuba	None
Honduras	None

• INDONESIA:

During August and the first week of September 2019, Yayasan Penyu Indonesia surveyed 11 electronic platforms, nine specialized trade webpages, and two social media networks (Facebook and Instagram). In total, 199 accounts selling these products were found with a total of 1,574 advertisements (see Table.) Rings, bracelets, earrings, hand fans and different types of hair accessories were the most popular articles offered online. The prices of each item can fluctuate depending on the ornaments used as decoration, such as silver or gold. A ring can cost 15,000,00 IDR (US \$1), while a bracelet, hand fan, or other accessories can reach millions of rupiah. A complete list of products and the range of prices of each item can be found in the following table. The research turned up at least 29,326 items available for sale (note: Facebook & Instagram did not have inventory numbers available.) The total value of these products in US dollars as of Oct. 7, 2019 was roughly \$34,486.

TABLE 5: TORTOISESHELL PRODUCTS FOR SALE ONLINE IN INDONESIA

PLATFORMS SURVEYED	# OF ACCOUNTS	# OF ADVERTISEMENTS	# OF ITEMS
Facebook	74	486	N/A
Instagram	58	739	N/A
Shopee.co.id	23	153	22,081
Tokopedia.com	18	109	5,502
Bukalapak.com	13	31	1,463
Carousell.com	2	14	19
Prelo.co.id	2	5	5
Kaskus Jual Beli	1	8	11
Belanjaqu.co.id	1	1	30
Blogspot.com	5	22	54
Website	2	6	161
TOTALS		1,574	29,326

For the 2019 CITES report, an electronic survey was conducted during an hour per day for one month (15 July to 15 August 2018) to search for the online availability of sea turtle products on commercial portals and social media (Facebook). A total of 13 search terms were used among the languages English, Malay/ Indonesian, and Mandarin. Over the span of a month, an estimated 321 hawksbill items were found for

sale, with a majority being bracelets (207) and other products including rings (31), necklaces (24), earrings (20 pairs), hair pins (19), glasses (13), and fans (4). The websites where these products were primarily found were Lazada and Shopee, as well as Tokopedia and Prelo to a lesser extent.

• VIET NAM

According to the 2019 CITES Report, ENV conducted an online survey that found a total of 25 individuals (unique online accounts) selling sea turtle products online through 42 different advertisements/posts. Most of the products observed for sale were small personal items (bracelets, fans, glasses, fingerpicks) in addition to trophies. ENV noted that both real and faux tortoiseshell products are illegal to sell in the country and these figures represent both types of products.

• CHINA

According to WildAid's 2018 report Sea Turtles, An Uncertain Future, online sales are a new and growing platform for the sale of sea turtle products in the country. While rarely found on major retail websites such as Taobao and JD.com, tortoiseshell appears much more often on smaller online retail sites focused on antiques or jewelry. The Shanghai Industry and Commerce Bureau identified several online shops selling hawksbill products as a part of a major online shopping campaign. To avoid increasingly strict regulations, vendors sometimes use the websites mainly to list their products and take the trade private after being contacted by interested buyers through apps such as WeChat, making enforcement much more difficult.



APPENDIX

RESOURCES: TurtleShell Guide

HOW TO IDENTIFY & AVOID HAWKSBILL TURTLESHELL
Endangered hawksbill turtles are hunted for their shells to make souvenirs. Help save this turtle by avoiding vendors selling turtleshell products.

IMITATION	TURTLESHELL
PLASTIC Uniform pattern with markings	COLOR Browns, oranges, amber, yellow
COCONUT Brown on top, beige underneath	PATTERN Assymetric and irregular shapes
HORN Heavy with black/white coloring	SURFACE Color pattern visible throughout

VISIT WWW.TOORARETOWEAR.ORG

Destination guides

COLOMBIA

KEY INFORMATION:

- 27.5% Shops found with turtleshell
- 2,593 Pieces found

IF YOU FIND TURTLESHELL:

- Don't buy from that vendor and tell them why.
- Take a photo and report it.
- Buy a handmade souvenir that doesn't come from wildlife.

LEGAL STATUS:
Illegal to purchase or sell turtle products including shell, eggs, and meat

Look for this logo in Cartagena to find Turtle Safe Shops

TOP DESTINATIONS:

- Cartagena
- Tolú
- Rincón del Mar
- Santa Marta
- Bogotá
- San Andrés / Providencia
- Riohacha

REPORT TURTLESHELL
TooRareToWear.org/Report-Turtleshell

PARTNERS:

- WildAid
- TOORARETOWEAR
- WWF

Learn more at: www.TooRareToWear.org

NICARAGUA

KEY INFORMATION:

70% Shops found with turtleshell

+7,000 Pieces reported

IF YOU FIND TURTLESHELL:

- Don't buy from that vendor and tell them why.
- Take a photo and report it.
- Buy a handmade souvenir that doesn't come from wildlife.

LEGAL STATUS:

Illegal to purchase or sell turtle products including shell, eggs, and meat)



Turtleshell Pieces Found: ● 2,000 Pieces or more ● 100 - 1,000 Pieces ● 100 Pieces or less

TOP DESTINATIONS:

- Managua
- Masaya Market
- San Juan del Sur
- Corinto
- Corn Island
- Chinandega
- Leon
- Granada
- Bluefields
- Puerto Cabezas
- Laguna Perlas



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COCONUT Brown on top, beige underneath	PATTERN Asymetric and irregular shapes
WORN Heavy with black/white coloring	SURFACE Color pattern visible throughout

Learn more at: www.TooRareToWear.org



COSTA RICA

KEY INFORMATION:

20% Shops found with turtleshell

-1,000 Pieces reported

IF YOU FIND TURTLESHELL:

- Don't buy from that vendor and tell them why.
- Take a photo and report it.
- Buy a handmade souvenir that doesn't come from wildlife.

LEGAL STATUS:

Illegal to purchase or sell turtle products including shell, eggs, and meat)



TOP DESTINATIONS:

- Puntarenas
- Central San Jose
- Tortuguero
- Paquera (port)
- Manuel Antonio
- Paso Canoas
- Central Limon



HOW TO IDENTIFY & AVOID HAWKSBILL TURTLESHELL

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COCONUT Brown on top, beige underneath	PATTERN Asymetric and irregular shapes
WORN Heavy with black/white coloring	SURFACE Color pattern visible throughout

Learn more at: www.TooRareToWear.org



CHINA



Photo credits: WildAid

IF YOU FIND TURTLESHELL:

- Don't buy from that vendor and tell them why.
- Take a photo and report it.
- Buy a handmade souvenir that doesn't come from wildlife.

LEGAL STATUS:

Illegal to purchase or sell turtle products including shell, eggs, and meat)



TOP DESTINATIONS:

- Coastal cities in Hainan, Guangxi, Guangdong & Fujian
- Beijing (Pearl Market)
- Shanghai
- Jiangsu



PARTNERS:



HOW TO IDENTIFY & AVOID HAWKSBILL TURTLESHELL

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WORN Heavy with black/white coloring	SURFACE Color pattern visible throughout

Learn more at: www.TooRareToWear.org

VIET NAM



Photo credits: WildAid

IF YOU FIND TURTLESHELL:

- Don't buy from that vendor and tell them why.
- Take a photo and report it to ENV at 1-800-1522 or email to hotline@fpv.vn. You can also report it through our website (link at right).
- Buy a handmade souvenir that doesn't come from wildlife.

LEGAL STATUS:

Illegal to purchase or sell turtle products including shell, eggs, and meat).



TOP DESTINATIONS:

- Hanoi
- Ha Tien
- Ho Chi Minh City
- Nha Trang
- Vung Tau
- Phu Quoc
- Ha Long



PARTNERS:




HOW TO IDENTIFY & AVOID HAWKSBILL TURTLESHELL

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COCONUT Brown on top, beige underneath	PATTERN Asymetric and irregular shapes
WORN Heavy with black/white coloring	SURFACE Color pattern visible throughout

Learn more at: www.TooRareToWear.org

INDONESIA



IF YOU FIND TURTLESHELL:

- Don't buy from that vendor and tell them why.
- Take a photo and report it.
- Buy a handmade souvenir that doesn't come from wildlife.

LEGAL STATUS:
Illegal to purchase or sell turtle products including shell, eggs, and meat



TOP DESTINATIONS:

- Sukawati Village (Bali)
- Denpasar (Bali)
- Dalung (Bali)
- Gianyar (Bali)
- Gunung Sitoli (Nias)
- Bawomatalou (Nias)
- Sorake (Nias)
- Teluk Dalam (Nias)
- Labuan Bajo (Flores)
- Wameo Market (Southeast Sulawesi)
- Kamali Beach (Southeast Sulawesi)
- Muara Siberut (Mentawai)
- Waingapu (Sumba)
- Derawan (East Kalimantan)
- Yogyakarta (Central Java)

REPORT TURTLESHELL
TooRareToWear.org/Report-Turtlesell

HOW TO IDENTIFY & AVOID HAWKSBILL TURTLESHELL

Endangered Hawksbill turtles are hunted for their shells to make souvenirs. Help look for turtles by spotting vendors selling turtleshell products.

IMITATION	TURTLESHELL
PLASTIC Uniform pattern with markings	COLOR Brown, orange, amber, yellow
COCONUT Brown on top, beige underneath	PATTERN Asymmetric and irregular shapes
HORN Heavy with black/white coloring	SURFACE Color pattern visible throughout

Learn more at: www.TooRareToWear.org



BIBLIOGRAPHY

Abarca, G., Urteaga, J., and Sirias, I. (2012). Diagnostico Sobre el Comercio de Subproductos de Tortugas Marinas en el Pacifico de Nicaragua. Fauna & Flora International, Cambridge, UK. www.fauna-flora.org

Barrios-Garrido, H., & Montiel-Villalobos, M. G. 2008. Diagnostic on the illegal commerce of sea turtles in the Gulf of Venezuela. NOAA Technical Memorandum NMFS SEFSC(567), 45-45.

Barrios-Garrido, H., Espinoza-Rodríguez, N., Rojas-Cañizales, D., Palmar, J., Wildermann, N., Montiel-Villalobos, M. G., & Hamann, M. 2017. Trade of marine turtles along the Southwestern Coast of the Gulf of Venezuela. Marine Biodiversity Records, 10(1), 1-12. doi: 10.1186/s41200-017-0115-0

Barrios-Garrido, H. 2018. Socio-economic drivers affecting marine turtle conservation status: Causes and consequences. PhD Thesis submitted for the degree of Doctor of Philosophy (Major Environmental Sciences and Management) at College of Science and Engineering, James Cook University. Townsville, Australia. 287 pp + XXV. <https://doi.org/10.25903/5be0fcec8548>

Barrios-Garrido, H., Palmar, J., Wildermann, N., Rojas-Cañizales, D., Diedrich, A., & Hamann, M. 2018. Marine turtle presence in the traditional pharmacopoeia, cosmovision, and beliefs of Wayuú Indigenous people. CHELONIAN CONSERVATION AND BIOLOGY, 17(2), 177-186. doi: doi:10.2744/CCB-1276.1

Boura L., Abdullah S., Nada M. 2016. New observations of sea turtle trade in Alexandria, Egypt. A report by MEDASSET – Mediterranean Association to Save the Sea Turtles.

Bräutigam, A. and Eckert, K.L. 2006. Turning the Tide: Exploitation, Trade and Management of Marine Turtles in the Lesser Antilles, Central America, Colombia and Venezuela. TRAFFIC International, Cambridge, UK.

CITES Secretariat. 2019. Status, scope and trends of the legal and illegal international trade in marine turtles, its conservation impacts, management options and mitigation priorities. Eighteenth (18th) meeting of the CITES Conference of the Parties (Geneva, August 2019), Document CoP18 Inf. 18.

Chacón, D. (2002). Diagnóstico Sobre el Comercio de las Tortugas Marinas y sus Derivados en el Istmo Centroamericano. Red Regional para la Conservación de las Tortugas Marinas en Centroamérica (RCA). San José, Costa Rica.

Cheng I-J, Cheng W-h, Chan Y-T (2018). Geographically closed, yet so different: Contrasting long-term trends at two adjacent sea turtle nesting populations in Taiwan due to different anthropogenic effects. PLoS ONE 13(7): e0200063. <https://doi.org/10.1371/journal.pone.0200063>

Costanza et al., 1997. The value of the world's ecosystem services and natural capital. Nature 387: 253-260.

Donnelly, M (2008). Trade Routes for Tortoiseshell. State of the World's Turtles, Vol 3, pages 24-25. www.seaturtlestatus.org

Guada, H., & Sole, G. 2000. WIDECASST Plan de Acción para la Recuperación de las Tortugas Marinas de Venezuela. In A. Suarez (Ed.), Informe Técnico del PAC (Vol. 39, pp. 112+xiv). Kingston, Jamaica: UNEP Caribbean Environment Programme.

Harrison, E, von Weller P, and Nahill, B (2017). Endangered Souvenirs: Hawksbill Sea Turtle Products for Sale in Latin America & the Caribbean. Too Rare To Wear. Beaverton OR, USA. <https://www.tooraretowear.org/report>

Kalb, HJ and T Wibbels, compilers. 2000. Proceedings of the Nineteenth Annual Symposium on Sea Turtle Biology and Conservation. US Dept Commerce. NOAA. Tech. Memo. NMFS-SEFSC-443, 291 p. Pages 22-25.

Kinch, J. and Burgess E. (2009). An Assessment of the Trade in Hawksbill Turtles in Papua New Guinea. TRAFFIC Bulletin, Vol 22 No.2. <http://environmentportal.in/files/Hawksbill.pdf>

Knights, P, and Birdseye, K (2016). All Creatures Great and Small: Illegal Wildlife Trade in the United States. WildAid, San Francisco, CA, US.

Lam, T., Xu Ling, Takahashi, S., and Burgess, E.A. (2011). Market Forces: An Examination of Marine Turtle Trade in China and Japan. TRAFFIC East Asia, Hong Kong.

Limpus, CJ, and Miller, JD (2008). Australian hawksbill turtle population dynamics project. Queensland Environmental Protection Agency. 140 p.

Miller, E, McClenachan, L, Uni, Y, Phocas, G, Hagemann, M, and Van Houtan, K (2019). The historical development of complex global trafficking networks for marine wildlife. Science Advances. American Association for the Advancement of Science. Washington DC.

Mortimer, J.A. and Donnelly, M. (2008). Marine Turtle Specialist Group 2007 IUCN Red List Status Assessment Hawksbill Turtle (*Eretmochelys imbricata*). www.iucnredlist.org/apps/redlist/details/8005/0

Robles, D. A. 2008. Beyond Assimilation Vs. Cultural Resistance: Wayuu Market Appropriation in Riohacha, La Guajira, Colombia. (Master of Arts), University of Kansas.

Rodríguez, J. P. 2000. Impact of the Venezuelan economic crisis on wild populations of animals and plants. *Biological Conservation*, 96(2), 151-159. doi: [http://dx.doi.org/10.1016/S0006-3207\(00\)00061-6](http://dx.doi.org/10.1016/S0006-3207(00)00061-6)

Sánchez-Mercado, A., Asmussen, M., Rodríguez-Clark, K. M., Rodríguez, J. P., & Jedrzejewski, W. 2016. Using spatial patterns in illegal wildlife uses to reveal connections between subsistence hunting and trade. *Conservation Biology*.

Sea Sense. 2012. The Marine Curio Trade in Dar es Salaam, Tanzania.

Stiles, D. 2008. An assessment of the marine turtle products trade in Viet Nam. TRAFFIC Southeast Asia, Petaling Jaya, Selangor, Malaysia.

Viajeros en Peligro (2014). WWF-Cuba, Havana, Cuba.

Van Dijk, P.P. and Shepherd, C.R. (2004). Shelled out? A Snapshot of Bekko Trade in Selected Locations in South-east Asia. TRAFFIC Southeast Asia.

Villate, R. 2010. The ecology and commerce of sea turtles at the Colombian Guajira. Saarbrücken, Germany: Lambert Academic Publishing.

Vuto S, Hamilton R, Brown C, Waldie P, Pita J, Peterson N, Hof C and Limpus C (2019). A report on turtle harvest and trade in Solomon Islands. The Nature Conservancy, Solomon Islands. 34 p. https://www.cms.int/iosea-turtles/sites/default/files/document/cms_iosea_mos8_inf.10.1.b_turtle-harvest-trade-solomon-islands_e.pdf

WWF / Dalberg. 2012. Fighting illicit wildlife trafficking: A consultation with governments. WWF International, Gland, Switzerland.

Yifan. L. 2018. Sea Turtles: An Uncertain Future. WildAid, San Francisco, CA, US.

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