WWF

JAPAN

SHELL SHOCKED: JAPAN'S ROLE IN THE ILLEGAL TORTOISESHELL TRADE

THIS REPORT HAS BEEN PRODUCED IN COLLABORATION WITH

TRAFFIC
the wildlife trade monitoring network

JJFF
Japan Tiger and Elephant Fund

WWF

WWF is one of the world's largest and most experienced independent conservation organizations, with over 5 million supporters and a global network active in more than 100 countries. WWF's mission is to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature, by conserving the world's biological diversity, ensuring that the use of renewable natural resources is sustainable, and promoting the reduction of pollution and wasteful consumption.

TRAFFIC

TRAFFIC is a leading non-governmental organization working globally on trade in wild animals and plants in the context of both biodiversity conservation and sustainable development.

Japan Tiger and Elephant Fund (JTEF)

JTEF, a non-profit and non-governmental organization, contributes to protecting the world of wildlife by representing their voice and interests so that global biodiversity and the natural environment of human beings will be conserved. JTEF has committed to combating wildlife crime related to Japan and eradicating unsustainable wildlife trade by researching wildlife markets, analyzing the legal systems, and keeping contact with the law enforcement communities.

© Martin Harvey / WWF

CONTENTS

EXECUTIVE SUMMARY 4

BACKGROUND 5

ILLEGAL TRADE TO JAPAN 6

STOCKPILE AND DOMESTIC REGULATIONS 9

ONLINE TRADE 11

CONCLUSIONS AND RECOMMENDATIONS 12

NOTES ON METHODS 14

REFERENCES 14

Published in May 2021 by WWF Japan.

Suggested citation: Kitade, T., M. Sakamoto and C.A. Madden Hof. (2021). *Shell Shocked: Japan's Role in the Illegal Tortoiseshell Trade*. WWF Japan. Tokyo, Japan.

For contact details and further information:

World Wide Fund for Nature Japan (WWF Japan)

wildlife@wwf.or.jp
Tel: +81-3-3769-1714
3F Mita-kokusai Bldg., 1-4-28 Mita, Minato-ku, Tokyo, Japan

Cover photography: © WWF-US / Keith Arnold

EXECUTIVE SUMMARY

The Hawksbill Turtle (*Eretmochelys imbricata*) is one of seven species of marine turtles and is listed as "Critically Endangered" (CR) in the IUCN Red List™. Their shells have unique patterns that have made them sought after in manufacturing tortoiseshell items (called "*bekko*" in Japanese) over many centuries. Since 1977 the species has been included in Appendix I of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), thereby prohibiting the international commercial trade in the animals, their parts, and derivatives. Japan is one of the world's largest historical tortoiseshell markets and a country where the manufacturing industry and domestic trade in tortoiseshell are allowed to continue legally today.

Efforts are being made globally to address the unsustainable or illegal take and trade in marine turtles. Uncovering the illegal trade patterns and their drivers in key source, transit, and consumer countries is essential to inform these efforts and ensure they are targeted and effective. This report provides an overview of the current situation in Japan, including the trends in illegal imports of marine turtle commodities—hawksbill tortoiseshell, in particular—an analysis of manufacturers' stockpiles, domestic regulations, and online trade.

Japan Customs seizure records revealed that an estimated total of 564 kg of hawksbill tortoiseshell were seized in 71 illegal importation incidents between 2000 and 2019, representing some 530 Hawksbill Turtles. Just over half (289 kg) was seized in 2015–2019 alone. The major source region appears to have possibly shifted from Southeast Asia to the Caribbean in recent years. The primary method of transport throughout the period was international mail, accounting for 93% of all incidents.

Manufacturers' stockpiles reported to the government show that 188.4 tonnes of raw tortoiseshell existed in 1995, of which 28.7 tonnes (15%) remained by 2017. The number of businesses holding stocks did not change drastically, going from 222 in 1998 to 175 in 2017. Given the infrequent government spot checks, continuing incoming seizures of tortoiseshells and their links to the active manufacturing industry, it is highly questionable whether the reported stockpiles truly reflect the actual tortoiseshell stocks in the country.

Current domestic legislation relies primarily on manufacturers self-reporting their transaction records and stockpile balance and exempts most tortoiseshell products (except for whole specimens/carapaces) from registration requirements. This lax legislation likely exacerbates the entry of illegally sourced raw material into the domestic supply chain. Finally, a snapshot survey of a major online auction platform revealed that a minimum of 8,202 sales of hawksbill products (unused and secondhand) took place in 2019, totalling JPY102 million (USD936, 850). Fewer than 1% of these sales fell under the domestic legislation, leaving the remainder as legal trade but effectively unregulated given the lack of rules governing trade in finished products.

In light of the evidence presented here, this study concludes Japan should: **1) strengthen law enforcement to tackle illegal trade with traceability controls; 2) tighten control of stockpiles and domestic trade regulations; 3) introduce voluntary bans on online sales of tortoiseshell by e-commerce companies** (see page 12–13 for the complete list of recommendations).

BACKGROUND

Bekko crafting and tortoiseshell trade in Japan

In Japan, the traditional use of Hawksbill Turtle (*Eretmochelys imbricata*) shells in "*bekko*" crafts likely dates back to the 17th Century Edo Period [1]. During the Meiji Period (1868–1912), *bekko*-manufacturing for export grew rapidly. In the 20th Century, Japan became the world's largest consumer of tortoiseshell, importing an estimated 641.5 tonnes between 1970 and 1986, equivalent to more than 600,000 Hawksbill Turtles [1]. Japan's demand was said to be solely for domestic consumption of *bekko* products, ranging from lower-priced jewelry and other accessories to expensive eyeglass frames [1].

Japan ratified the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) in 1980 but took out a Reservation[1] on Appendix I listing of the Hawksbill Turtle, thereby enabling the continuing importation of a 30-tonne quota of raw tortoiseshell annually, equivalent to some 30,000 turtles, between 1980–1989. At the time, the tortoiseshell was sourced mainly from the Caribbean and Latin America, followed by Southeast Asia [2]. Japan finally introduced a zero import quota in 1993 and withdrew the Reservation in the following year. The domestic craft industry survived by working materials from stockpiles imported before 1993, but a number of illegal tortoiseshell imports were intercepted following the ban including a container shipment of some three tonnes from Indonesia in 1995 [2].

Japan continued to be implicated as a driver of illegal marine turtle trade into the 2000s [3, 4]. A review of seizures and market availability in East Asia from 2000–2008 revealed that Japan's continued demand was specific to raw scutes and China was growing as an important consumer market [3]. These previous assessments suggested that demand from East Asia was driving increasing illegal take of Hawksbill Turtles and Green Turtles (*Chelonia mydas*) from the Coral Triangle region [3, 4]. However, there is no more recent assessment of consumer countries in East Asia available. This briefing focuses on Japan and includes assessments of seizure records (2000–2019), manufacturers' stockpile records (1995–2017) and a snapshot survey of online trade (2019), leading to the formulation of recommended actions needed in Japan to support ongoing domestic and international efforts to combat illegal trade in marine turtles.

1. Under CITES a Party may make a unilateral statement that it will not be bound by the provisions of the Convention relating to trade in a particular species listed in the Appendices.

ILLEGAL TRADE TO JAPAN

A total of 564 kg of tortoiseshell were seized in Japan as illegal imports between 2000 and 2019, equivalent to approximately 530 Hawksbill Turtles.

A review of seizures made by Japan Customs over the 20-year period 2000–2019 found that illegal tortoiseshell importation persists with 257 kg and 307 kg, seized in the first (2000–2009) and second (2010–2019) decades, respectively (**Table 1**). Conversely seizures of other marine turtle commodities, including stuffed specimens and processed products, declined in the more recent decade with the exception of marine turtle medicinal products exported from China (**Table 1**). These patterns are consistent with prior studies revealing Japan is a key destination of hawksbill tortoiseshell [3].

Table 1. Marine turtle commodity types seized by Japan Customs in illegal imports, 2000–2019 (116 incidents)

Commodities seized	2000–2009	2010–2019	Total
Tortoiseshell (raw scutes/materials)*	257 (kg)	307 (kg)	**564 (kg)**
Taxidermied/stuffed specimens	17	3	**20**
Bone	1	1	**2**
Products	67		**67**
Rings	200		**200**
Pipes	21		**21**
Hair accessories	50		**50**
Necklaces	131		**131**
Accessories		2 (kg)	**2 (kg)**
Musical instruments	1		**1**
Medicine		585	**585**

* see Notes on Methods for weight conversions
Source: Japan Customs

Tortoiseshell seizures are rising again: a total of 289 kg were seized during 2015-2019. The source region appears to be shifting from Southeast Asia to the Caribbean.

However, more in-depth analysis of tortoiseshell seizures revealed that they were concentrated in two distinct periods—in the early 2000s and after 2015 (**Fig. 1**). Many of the earlier seizures in 2000–2010 originated in Singapore (22 of 28 incidents, totaling 137 kg or 53% by weight), all intercepted in international mail (**Fig. 2A**). Other notable seizures of tortoiseshell included the interception of 26 kg smuggled from the Dominican Republic on a passenger airplane in 2002 and 88 kg hidden in shipping cargo from Indonesia in 2003. Southeast Asia, namely Singapore and Indonesia, accounted for 88% of the total weight seized in this period.

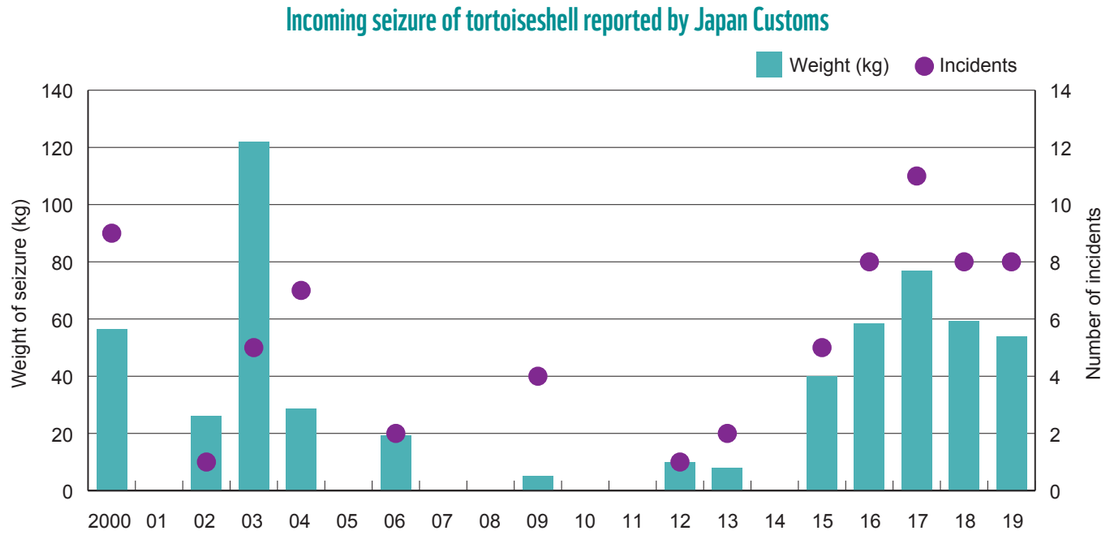


Figure 1. Incoming seizures of tortoiseshell reported by Japan Customs, 2000–2019 (71 incidents) (Source: Japan Customs). Only items considered to be raw materials were included (see Notes on Methods for further details including weight conversion).

By 2010–2019, the source region appeared to have shifted to the Caribbean, with the Dominican Republic and Haiti accounting for 91% of the total 307 kg seized (**Fig. 2B**). From 2015–2019 there was an increase in seizures, with 289 kg seized in 40 incidents, all intercepted in international mail. The Dominican Republic dominated with 29 incidents totaling 209 kg (72% of the total weight seized in 2015–2019). Seizures originating in Haiti first took place in 2018 with just two incidents, but then accounted for all eight incidents that occurred in 2019, totaling ten incidents in two years and weighing a total of 70 kg (24% of the total weight seized in 2015–2019). International mail was the predominant mode of transport throughout 2000–2019, accounting for 93% of all incidents and 78% by weight.

In May 2021, two Japanese suspects—including a government-notified *bekko* dealer—from one of the 2019 incidents appeared in court, on trial for allegedly smuggling 7 kg of tortoiseshell from Haiti [5]. The case indicates illegal imports of tortoiseshell are almost certainly entering the domestic manufacturing supply chain. The on-going court case is revealing that smuggling was allegedly organized with domestic *bekko* manufacturers [6]. A previous court case, relating to smuggling from the Dominican Republic in 2002, found repeated involvement of Japanese organized crime with links to a *bekko* dealer [6].

Figure 2A

Figure 2B

Figure 2. Illegal tortoiseshell trade routes to Japan identified from seizure data, 2000–2009 (2A: 28 incidents, 257 kg in total) and 2010–2019 (2B: 43 incidents, 307 kg in total) (Source: Japan Customs). Width of arrows indicates volume seized.

Although it is difficult to assess the relative importance of countries in illegal trade based solely on seizure data, it appears that Japan continues to be an important market for illegally sourced marine turtles, particularly for tortoiseshell. Relative to the three priority countries in Southeast Asia assessed for their involvement in illegal marine turtle trade by CITES—Indonesia, Malaysia, and Viet Nam—only Indonesia made more seizures (609 kg of unprocessed shells (1,014 pieces including Hawksbill and other marine turtles species)) than Japan (289 kg, Hawksbill only) during 2015–2019 [7].

STOCKPILE AND TRADE REGULATIONS

Manufacturing continues 28 years after the import ban. The status of stockpiles and domestic trade regulations need to be scrutinized in the face of continuing illegal imports.

The Law for the Conservation of Endangered Species of Wild Fauna and Flora (LCES) requires all manufacturers to report their hawksbill tortoiseshell stockpiles to the Ministry of Economy, Trade, and Industry (METI) and the Ministry of Environment (MOE) at the time of their initial notification of business operations and upon request thereafter. The annual total of stockpiles reported by manufacturers shrunk from an initial 188.4 tonnes in 1995 to 102.7 tonnes (55%) in 1998 (**Fig. 3**). Following a steep initial drop, the decline became more gradual, an average of 4.0 tonnes per year until 2017 when some 28.7 tonnes (15% of the 1995 total) were said to remain. The number of businesses holding stocks did not change drastically, going from 222 in 1998 to 175 in 2017 (**Fig. 3**). Despite these trends, it has been pointed out that the stockpile should have been exhausted about a decade ago [3, 6]. JTEF's inquiry found that METI did not conduct any on-the-spot inspections of manufacturers between 2015 and 2019, a period coinciding with the observed rise in incoming tortoiseshell seizures [6]. Therefore, whether the reported stockpile total reflects the true quantity is highly questionable given the influx of illegally sourced materials.

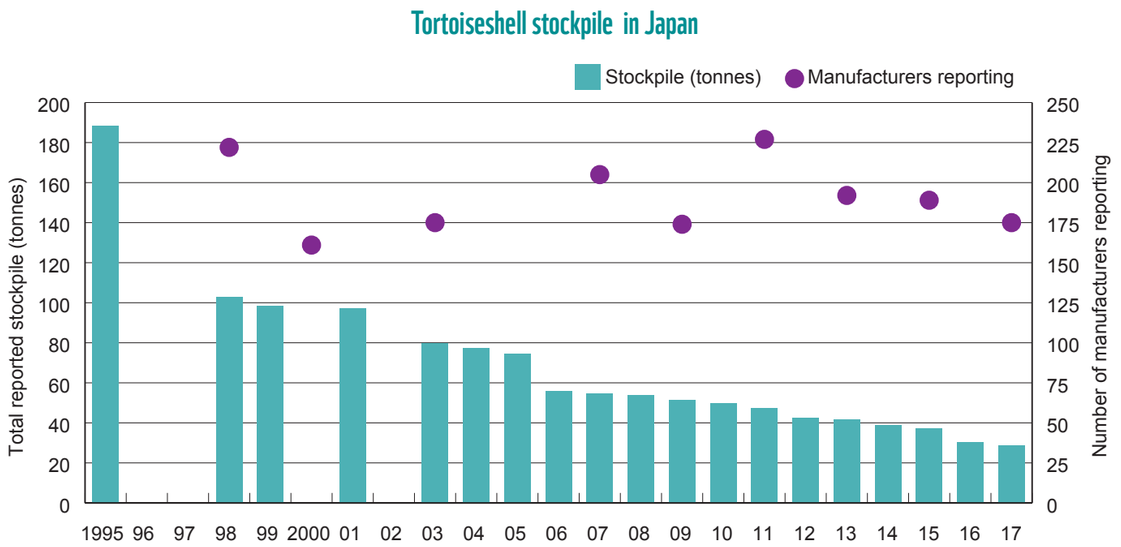


Figure 3. Tortoiseshell total stockpile quantity and number of registered businesses reporting stockpiles between 1995 and 2017 (Source: METI, data provided to JTEF)

Lack of effective domestic regulations allows the entry of products manufactured from illegal supplies into the consumer market.

Beyond the stockpile issue, domestic trade regulations also need an overhaul. Currently, LCES regulates the domestic industry and market in two ways: 1) regulation over the trade of specimens maintaining the whole body/carapace shape, and 2) through regulation of businesses dealing in raw tortoiseshell, including the requirement for recording the details of their trade and stockpile balance (**Fig. 4**). It follows that trade in tortoiseshell scutes and finished products are omitted from regulation 1) Likewise, businesses dealing in finished products are exempt from regulation 2) The result is a market where the bulk of products are sold without any proof of legality or traceability, effectively creating an open market to launder illegally sourced products.


© TRAFFIC

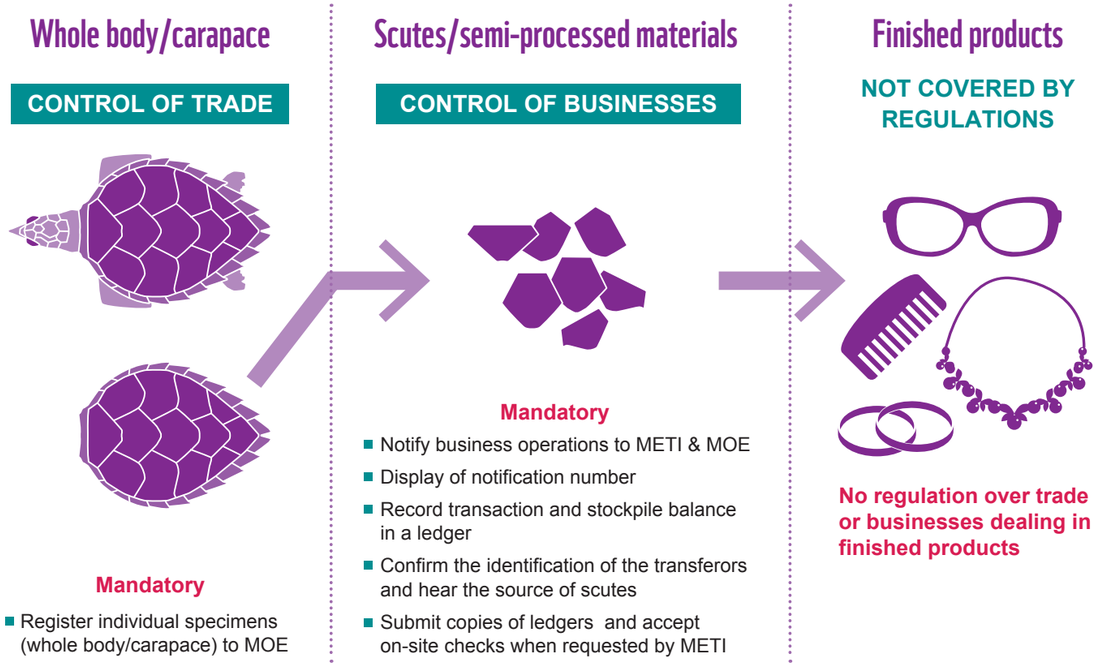


Figure 4. Schematic of domestic trade regulations under LCES (produced by WWF Japan)

ONLINE TRADE

Unregulated sales of tortoiseshell products continue on major e-commerce platforms, posing a risk to the service provider companies and consumers.

Online sales in marine turtle and *bekko* products are legal in Japan under the above-mentioned regulatory scheme. A snapshot analysis of closing bids in 2019 containing the word "*bekko*" on Yahoo Auction, the largest online auction platform in Japan, was carried out by JTEF. This gave a conservative estimate of at least 8,202 sales valued at JPY102 million (USD936,850) counting only those records identified with specific keywords describing genuine *bekko* materials (**Table 2**). The composition of unused versus secondhand items could not be discerned. The most common product types were jewelry (72%), followed by eyeglass frames (11%), with the latter comprising nearly 50% of the sales value. Less than 1% or 53 sales were subject to trade regulations, where registrations of individual stuffed specimens and whole carapaces were required. Further analysis by JTEF revealed that only one out of the 53 sales (corresponding to 54 items) was actually conducted according to the legal requirements [6].

Hawksbill products were also observed on other major e-commerce sites. Spot checks by WWF Japan in April 2021 using a keyword search (genuine *bekko* in Japanese) found some 2,924 active advertisements on Mercari, the largest Consumer-to-Consumer trading site. Similarly, some 2,900 and 207 product advertisements, respectively, were found on Yahoo Shopping and Rakuten-Ichiba, two of Japan's largest online retail malls.

Table 2. Minimum* hawksbill tortoiseshell sales (successful bids) conducted on Yahoo Auction in 2019.

Product types	Number of sales	(%)	Sales value (USD)	(%)
Stuffed specimens	50	(0.6%)	4,636	(0.5%)
Whole carapaces	3	(<0.1%)	325	(<0.1%)
Tortoiseshell (scutes)	4	(<0.1%)	259	(<0.1%)
Eyeglass frames	870	(11%)	460,261	(49%)
Jewelry	5,880	(72%)	329,314	(35%)
Ornaments	205	(2%)	26,903	(3%)
***Bachi* (plectra)**	424	(5%)	66,973	(7%)
Others	766	(9%)	48,180	(5%)
Total	**8,202**		**936,850**	

* Only includes records searched by keywords identifying genuine *bekko* (see Notes on Methods). The average USD/JPY exchange rate for 2019 (0.00917) was used.
Source: JTEF.

CONCLUSIONS AND RECOMMENDATIONS

The seizure data trend suggests Japan's domestic market continues to play a part in driving illegal trade in tortoiseshell materials, with its primary source possibly shifting from Southeast Asia to the Caribbean region in recent years. Although law enforcement authorities in Japan are making seizures and arrests, further enforcement and successful prosecutions are needed. To support these actions and to tackle the entire illegal trade chain, Japanese authorities should strengthen their domestic controls, international co-operation and use of advanced DNA forensics [8]. Since illegally sourced tortoiseshell is entering domestic supply chains, urgent reviews of manufacturers' stockpiles and domestic trade regulations are needed. Japan's major e-commerce platforms are also at risk of unwittingly allowing illicitly sourced products to be sold to consumers. Given the above, the following recommendations are made.

Law enforcement agencies (Customs, Police, and the Judicial Sector):

- **Strengthen surveillance at entry points, including international mail services, to detect illegal imports of tortoiseshell by joining forces with the maritime and transport sectors, sensitizing the staff on the ground, and employing effective detection techniques, including sniffer dogs.**
- **Conduct criminal investigations following seizures, including the use of DNA forensics and financial investigation, to 1) identify the trade routes and origin of illegally sourced tortoiseshell; 2) arrest and prosecute all offenders involved in criminal acts and seize assets as appropriate.**

Regulatory authorities (METI and MOE):

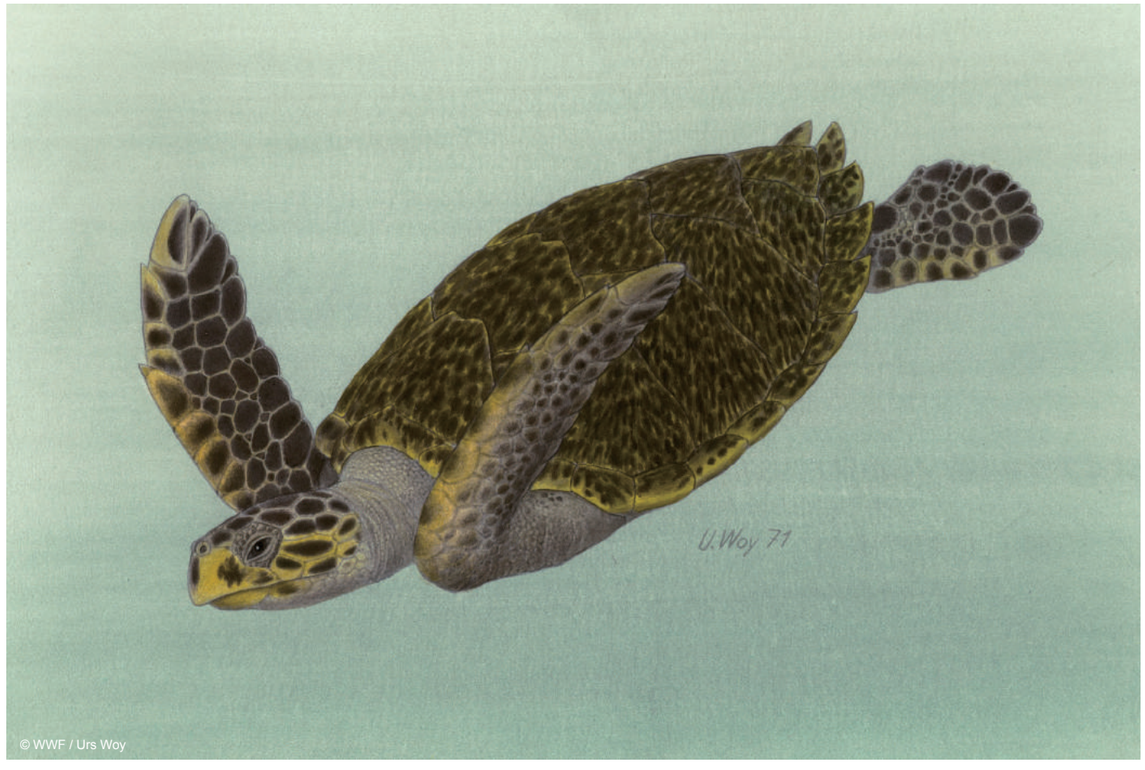
- **Conduct a legislative review to introduce robust regulations to ensure that the domestic market will no longer drive illegal take and trade in hawksbill tortoiseshell, including as a minimum mandatory registration of all tortoiseshell materials with verification of legal acquisition and mandatory traceability of all new products to legal stocks.**
- **As an interim measure, strengthen the enforcement of current domestic regulations to detect and deter illegal sourcing by 1) scrutinizing the stockpiles owned by manufactures and traders (including third-party DNA/aging spot checks) and 2) surveillance to identify and punish those not complying with the regulations.**

The Japanese government (all relevant agencies involved):

- **Pursuant to CITES Decision 18.211, improve intra- and inter-regional co-operation, collaboration, and exchange of actionable intelligence and forensic and research materials (e.g. DNA samples) and other data regarding illegal take of and trade in marine turtles.**

E-commerce companies:

- **Introduce a voluntary ban on all marine turtle products to eliminate the ongoing unregulated domestic trade and to demonstrate zero tolerance toward the risk of illegally sourced products being traded on their platforms.**
- **Co-operate with government authorities and non-governmental organizations in monitoring and enforcing user compliance with legal requirements and more stringent company policies, and conduct awareness-raising among users/ consumers.**



© WWF / Urs Woy

NOTE ON METHODS

Most data summarized in this briefing were prepared by JTEF for their full report where the methodology used is elaborated [6]. Adaptations were made for this briefing as follows: all seizure records involving “marine turtles” were extracted from JTEF’s archive of annual seizure reports produced by Japan Customs. Some incidents mislabeled as Appendix II “turtles” or “marine turtles” were found to refer to Hawksbill Turtles (i.e. the commodity type labeled as tortoiseshells) and were also included in the dataset. For a small number of tortoiseshell seizures (N=13) where quantities were entered in numbers instead of metric units, assumptions were made about the form of the items based on the numbers seized and converted to an estimated weight as follows: for incidents with one or two items, a whole carapace was assumed, and a unit weight of 1.06 kg was used [9]; for incidents with over 30 items, separated scutes were assumed, and a unit weight of 0.057 kg was used, which was calculated using a known seizure record (1,550 pieces of scutes weighing 88 kg seized in a shipment from Indonesia in 2003) (press release dated May 23rd, 2003, by Osaka Customs and Osaka Prefectural Police Osaka Suijo Police Station). One incident from 2004 that was missing the exporting country's information was included in the analysis but was excluded from the map (**Fig. 2**). For Yahoo Auction’s data, 2019 records of all closing bids containing the word “*bekko*” in Japanese were downloaded by JTEF. The data were further screened using several keywords in Japanese which describe “genuine *bekko*” as the material to exclude possible false hits [6]. This method yields the minimum conservative estimate and likely excludes many actual *bekko* items which were not described using the restrictive keywords.

REFERENCES

1. Milliken, T. and H. Tokunaga. (1987). *The Japanese Sea Turtle Trade 1970-1986*. TRAFFIC Japan. Tokyo, Japan.
2. van Dijk, P.P. and C.R. Shepherd. (2004). *Shelled out? A Snapshot of Bekko Trade in Selected Locations in South-east Asia*. TRAFFIC Southeast Asia.
3. Lam, T., X. Ling, S. Takahashi and E.A. Burgess. (2011). *Market Forces: An Examination of Marine Turtle Trade in China and Japan*. TRAFFIC East Asia. Hong Kong.
4. IOSEA. (2014). *Illegal take and trade of marine turtles in the IOSEA region. Seventh meeting of the Signatory States (Bonn, Germany, 8–11 September 2014)*. IOSEA. Bonn, Germany.
5. Kado, E. and Y. Kawasaki. (2021). *The arrest of men including a Bekko seller for smuggling hawksbill tortoiseshell (タイマイの甲羅を密輸の疑い べっこう販売業の男ら逮捕)*. Asahi Shimbun. February 25th, 2021.
6. Sakamoto, M. (2021). *Dark Side of Everlasting Tortoiseshell-Crafting in Japan*. Japan Tiger and Elephant Fund. Tokyo, Japan. (in preparation for publication as of May 2021).
7. Gomez, L. and K. Krishnasamy. (2019). *A Rapid Assessment on the Trade in Marine Turtles in Indonesia, Malaysia and Viet Nam*. TRAFFIC. Petaling Jaya, Malaysia.
8. Jensen, M.P., E.L. LaCasella, P.H. Dutton and C.A. Madden Hof. (2019). *CRACKING THE CODE: Developing a tortoiseshell DNA extraction and source detection method*. WWF Australia.
9. Mortimer, J.A. and M. Donnelly. (2008). *Eretmochelys imbricata. The IUCN Red List of Threatened Species 2008: e.T8005A12881238*. https://dx.doi.org/10.2305/IUCN.UK.2008.RLTS.T8005A12881238.en

© James Morgan / WWF-US

WWF

Working to sustain the natural world for the benefit of people and wildlife.

together possible™

wwf.or.jp

For contact details and further information please visit WWF Japan's website at **www.wwf.or.jp**