TORTOISES AND FRESHWATER TURTLES
Special Issue
TRAFFIC Post

TRAFFIC's newsletter on wildlife trade in India was started in September 2007 with a primary objective to create awareness about poaching and illegal wildlife trade.

Illegal wildlife trade is reportedly the fourth largest global illegal trade after narcotics, counterfeiting and human trafficking. It has evolved into an organised activity threatening the future of many wildlife species.

TRAFFIC Post was born out of the need to reach out to various stakeholders including decision makers, enforcement officials, judiciary and consumers about the extent of illegal wildlife trade in India and the damaging effect it could be having on the endangered flora and fauna.

Since its inception, TRAFFIC Post has highlighted pressing issues related to illegal wildlife trade in India and globally, flagged early trends, and illuminated wildlife policies and laws. It has also focused on the status of legal trade in various medicinal plant and timber species that need sustainable management for ensuring ecological and economic success.

TRAFFIC Post comes out three times in the year and is available both online and in print. You can subscribe to it by writing to trafficind@wwfindia.net

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Troubled turtles of India: An urgent call to address wildlife trafficking of protected species

Multi-agency enforcement training organised to stop wildlife trafficking across high Himalayan borders

New enforcement tools to help curb the illegal marine molluscs’ trade in India

Online campaign urges people not to buy, eat, wear or own protected wildlife species and their products

Short film released on 'World Pangolin Day' to highlight pangolin's poaching crisis

Indian Star Tortoise makes its way into the Vistara Inflight Magazine

3,396 Indian softshell turtles seized in West Bengal in transit to Bangladesh

Forest officials seize 414 live Indian Star Tortoises in Andhra Pradesh

Two endangered Radiated Tortoises and one Aldabra Tortoise seized by Assam Rifles in Manipur

Fashion a bane for India’s marine turtles

Chasing Payments: Latest analysis exposes the financial underbelly of global wildlife crime

Inclusion
TORTOISES AND FRESHWATER TURTLES OF INDIA IDENTIFICATION POSTER, 2019
on page 42
Dear Readers

Lenin once famously said, "there are decades when nothing happens, and then there are weeks where decades happen." Last year proved to be one such eventful year in human history. The COVID-19 pandemic led to drastic changes in almost everyone’s life, not just the way we live or do business but also how we think and plan our future. The virus' likely origin in wildlife also brought an unprecedented focus on the issue of illegal trade of wild animals and the risks attached to such trade, if not regulated carefully. It also brought the delayed discussion on zoonotic diseases and their devastating impact on human health and wellbeing to centre stage.

Incidentally, zoonotic diseases are not new to us. The phenomenon of diseases spreading from animals to humans is as old as humankind itself. Over 60% of known human pathogens are zoonotic, and over 70% of all new and emerging infectious diseases have an animal origin; in many cases, a wild one. Rampant illegal global trade of prohibited wildlife and their products; and general apathy towards prescribed quarantine and hygiene protocols in cases of legally permissible animal trade are the key facilitators in the spread of several of these diseases. Unfortunately, despite its well-understood threat to humans, zoonotic diseases somehow never got the desired level of attention from policymakers.

However, things changed as COVID engulfed the entire globe. The world suddenly rose from its slumber and became concerned about the destructive potential of zoonotic diseases to global health and the economy. It has renewed efforts to strengthen and mainstream the One-Health approach of taking human, animal and environmental health as one entity has gained more prominence across the globe.

India, with MoEF&CC taking the lead has also initiated several steps in this direction. It is taking steps to regulate the trade of exotic animals, supporting efforts to predict the outbreak of zoonotic diseases, and developing effective ways to deal with an outbreak and is initiating a national level programme on biodiversity conservation and One-Health.

Under these uncertain times, TRAFFIC continued with its efforts to support various initiatives in the country aimed at combating illegal wildlife trade, building enforcement capacities and creating public awareness regarding the negative impact of the illicit trade on overall biodiversity; by employing tools like social media campaigns, organising virtual meetings, monitoring cyberspace for wildlife trade and facilitating online discussions.

Even among the species in trade, the more charismatic species get some bit of attention; the
non-charismatic species are generally left in a lurch. To fill this gap, the current issue of TRAFFIC Post focuses on one such neglected group of commonly traded wildlife species that is the tortoises and freshwater turtles (TFTs). A 2019 TRAFFIC study showed that more than 10,000 TFTs were traded annually across India. This likely to lead few species to the point of no return if urgent actions are not taken. Unfortunately, the trend does not seem to have changed much, as is evident from several seizures of TFTs happening all across the country.

This issue of TRAFFIC Post is dedicated to this highly critical and heavily traded group of wild animals. It intends to highlight the plight of one of the oldest surviving faunal group of the planet.

Stay Safe!

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Troubled turtles of India: An urgent call to address wildlife trafficking of protected species

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Disclaimer: This is to inform readers that the views, thoughts, and opinions expressed in the article belong solely to the author, and not necessarily to TRAFFIC, WWF-India or other group or individual.
Troubled turtles of India: An urgent call to address wildlife trafficking of protected species

Of late, there has been a significant increase in the commercial exploitation of tortoises and freshwater turtles (TFTs) in India. This is worrisome, especially for TFTs with a limited distribution range, delayed maturity, and low reproductive rate. A study by TRAFFIC’s India Office had found a minimum of 100,000 tortoises and turtles in illegal wildlife trade between 2009-2019 across India (Badola et al., 2018). Furthermore, a joint study by Freehand India and Turtle Survival Alliance-India (TSA-India) found that over 58,000 live individuals were confiscated from 223 enforcement seizures between 2011-2015 (Mediratta et al., 2017).

Quite alarmingly, 15 of India’s 29 TFTs species, including ten threatened species, are repeatedly surfacing in such domestic and cross border wildlife trade seizures. The species currently heavily sought after to meet the illegal demand of turtles are Indian Softshell Turtle Nilssonia gangetica, Indian Peacock Softshell Turtle Nilssonia hurum, Indian Narrow-headed Softshell Turtle Chitra indica, Indian Flapshell Turtle Lissemys punctuata, Indian Star Tortoise Geochelone elegans, Indian Tent Turtle Pangshura tentoria, Indian Roofed Turtle Pangshura tecta, Assam Roofed Turtle Pangshura sylhetensis, Spotted Pond Turtle Geoclemys hamiltonii and Tricarinata Hill Turtle Melanochelys tricarinata.

It is feared that Red-crowned Roofed Turtle Batagur kachuga and Three Striped Roofed Turtle Batagur dhongoka have re-entered the illegal wildlife trade. This trend is concerning due to their limited surviving wild populations and threatened conservation status. These species have been found in recent wildlife seizures in Agra and Bengaluru, and even outside India (Bangladesh) (Badola et al., 2018).

Species such as the L. punctata found in the natural wetlands in north India and moist agricultural fields are more exposed to exploitation and human interference.

A significant concern arises from non-native TFT species entering India, such as the Red-eared slider Trachemys scripta elegans, African Spurred Tortoise Centrochelys sulcata, Chinese Softshell Turtle Pelodiscus sinensis and others, for the domestic pet trade. The challenges related to their management and ecology are huge and could have serious implications for native species if released in natural habitats.
Major drivers of illegal trade in TFTs are demand for meat consumption, illegal pet trade, and to be used as an ingredient in traditional medicines within and outside India. Some turtle species are also used in black magic, especially during Diwali and Kali Pujo festivals.

Rail and road networks surrounding the River Ganga and Mahanadi basin in north India are significant transport modes for smuggling turtles, primarily species targeted for meat and pet trade. However, pet traders also use the airports at Mumbai, Chennai, and Bengaluru to smuggle high-priced turtles such as *B. kachuga*, *P. sylhetensis*, and *G. elegans*. Well-organised wildlife traffickers in West Bengal act as distributors of turtles that are smuggled into the State from all over the country and outside too. There is limited information on where large-scale consignments are collected, stored and eventually supplied nationally and internationally as per the demand.

On a visit to two functional markets- *Maharajgani* and *Battala* in Tripura in early 2020, the author had found the sale of Indian Flapshell Turtles and Indian Softshell Turtles at high prices. Male of *B. kachuga* is also highly-priced in the illegal pet trade industry within the country mainly due to its attractive outer shell.

Rapidly changing trends, species composition in illegal trade, and changing demand are cause for concern, especially across the Gangetic basin, including North Indian states such as Uttar Pradesh and Bihar, along with West Bengal. This ecologically sensitive region has emerged as the significant infamous arc of the illegal trade route for TFTs due to its unique position in the Gangetic Basin, globally recognised as a critical turtle biodiversity hotspot. Strikingly, with 15 species of India’s freshwater turtles residing here, the region ranks the richest in turtles’ diversity after the Brahmaputra basin in northeast India.

Fairly robust turtle populations are still surviving in substantial areas, including several wetlands around Etawah-Mainpuri in Uttar Pradesh and significant oxbow wetlands of Bihar and despite such high anthropogenic pressures.

**ONGOING ILLEGAL TRADE TRENDS**

In the last seven months (August 2020 to February 2021), over 9,000 freshwater turtles were reported to be confiscated within Uttar Pradesh, Bihar and West Bengal – most originating from Uttar Pradesh. The actual numbers of wildlife trafficking may be much higher as most illegal consignments presumably go undetected.

Seventeen districts in Uttar Pradesh alone have registered records of enforcement seizure or community involvement in clandestineurtle hunting. Based on previous turtle trade data, Etawah-Mainpuri-Agra, Sultanpur-Pratapgarh-Amethi, Unnao-Kanpur, and Gonda-Bahraich-Pilibhit in Uttar Pradesh have emerged as sensitive zones for illegal trade in order of ranking. Enforcement agencies in these zones need to be on high alert, providing adequate enforcement intervention and rehabilitation support to live and confiscated animals. Furthermore, the presence of many fishermen and semi-nomad tribes, who may have turned into turtle poachers for lucrative gains from this clandestine business, has intensified the threat to TFTs.

Seizure data suggest that winter is the peak season for TFTs’ smuggling, especially in north India. Wildlife law enforcement gaps, low mortalities due to ‘optimal’ weather conditions, and notably high demand for turtle meat in east Indian states during the winters and festivals season are considered main drivers of increased trafficking of TFTs.

Turtles in north India are often collected during the lean season (May-June), and again post-monsoon (September-October). Turtles are generally active during this period and move around searching for nesting and foraging grounds, making them vulnerable to collection and poaching. Various trapping methods are used to collect these turtles from the wild, then sold to discrete collection locations. They are kept confined for months with minimal
or no food and water before they are smuggled to the destination markets. Certain species are butchered at the collection points and packed in iceboxes for sale as processed fish to avoid detection. Calipee from species such as *Nilssonia* is extracted at these centres for transportation, often disguised as fish scales or buffalo horns. Calipee is often extracted from live turtles or freshly butchered animals for quality purposes. Large softshell turtles such as *Nilssonia, Chitra,* and *Pelechelys* can produce such products.

The illegal trade of TFTs’ is dynamic. It varies every year in terms of species, sex ratio, products, trade routes and modes of transportation. Individual turtle poachers and fishermen often get a nominal price when selling turtles to local collection points. Local collection centres sell them at a much higher price to the middlemen, generally from West Bengal. From there, these TFTs find their way into international markets.

**SPECIES IN FOCUS**

Over the last seven years, TSA-India and Uttar Pradesh Forest Department teams have provided onsite triage and medical aid to more than 30,000 individuals of 13 species of turtles seized in wildlife seizures. These include *M. tricarinata, C. indica, N. gangetica, N. hurum, G. hamiltonii* among others.

Species composition in turtle seizure has changed. Illegal trade seems to be more focused on live large softshell turtles instead of medium and small hardshell species such as Spotted Pond Turtles *G. hamiltonii* and Indian Tent Turtles *P. tentoria.* This further indicates a possibility that populations of such species may be on decline in their distribution range, especially outside of the protected areas.

Going through the size and sex-ratio of certain species such as *G. hamiltonii* in wildlife seizures, it appears that illegal traders might have developed their own breeding colonies within and outside of the country. Species such as *G. hamiltonii, M. tricarinata, N. gangetica* and *N. hurum* have also been uplisted as Endangered by IUCN because of the severe decline in their populations caused by illegal wildlife trade.

**WAY FORWARD**

Several organisations have come forward in the region to help curb the trafficking of tortoises and freshwater turtles. For instance, the Uttar Pradesh Forest Department has sounded alerts regularly to seek various stakeholder cooperation to curb the illegal turtle trade. Wildlife Crime Control Bureau (WCCB) and Special Task Force of Uttar Pradesh Police Department have played a significant role in key operations to seize and rescue live turtles. Uttar Pradesh Special Task Force conducted one of the most significant seizures of over 7000 turtles from Amethi in 2018.
responsible agencies should organise or provide triage (treatment), quarantine and rehabilitation of confiscated live turtles. They should also instate standard rehabilitation protocols for the management and upkeep of seized animals.

Dying and seriously injured individuals should be assessed for specific stress parameters to generate a baseline for future reference for health; it is crucial to establish several temporary turtle holding facilities for emergency triage, retention, and quarantine. There is a need to keep exotic species in captivity or repatriate them back to the country of origin. Similarly, under the Wildlife (Protection) Act, 1972 and CITES mandate, states should collaborate to repatriate turtles seized within or outside the countries.

Strengthening enforcement is also crucial to securing the future of turtles in the region. Therefore, keeping a check on repeated offenders all across the range is vital. Authorities should work with semi-nomadic communities to find alternative sources of revenue and livelihoods. If illegal trade is unchecked, these activities may silently lead to catastrophic extinctions of common taxon of turtles.

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Tortoises and freshwater turtles in illegal wildlife trade: Global perspective

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Tortoises and freshwater turtles in illegal wildlife trade: Global perspective

Introduction

Turtles and tortoises are much-loved creatures revered in cultures and folktales around the world. These iconic reptiles play several critical ecological roles, such as supporting seed dispersal and also help control the populations of invasive species such as Golden apple snail (Channeled applesnail) *Pomacea canaliculata* (Dong et al., 2012). Despite their contribution to a healthy ecosystem, the species are in perils because of fast degrading habitats due to anthropological actions (Stanford et al., 2020). The IUCN Red List currently identifies 161 species of Testudines as threatened, categorised as Critically Endangered, Endangered and Vulnerable (IUCN 2020).

Turtles are among the most threatened with extinction, among all major vertebrate groups (Stanford et al., 2018), with unsustainable illegal trade being one of the prime threats to the species worldwide (Segura et al., 2020) (Fauzi et al., 2020) (Van et al., 2019) (Mendiratta et al., 2017) (Linh et al., 2016).

Demand

The ever-insatiable demand for turtle in the international market leads to their trafficking across international borders. Turtles and tortoises made 47.4% of the total number of live reptile equivalents seized in 2007-2017 globally (World Wildlife Crime Report: Trafficking in Protected Species, 2020). They are demanded as pets (Segura et al., 2020) (Stoner, 2018a) (Nijman et al., 2015), for meat (Chaves et al., 2020) (Fauzi et al., 2020) (Platt et al., 2017) (Manjoawy et al., 2017) (Mendiratta et al., 2017), for eggs for consumption (Charity & Ferreira, 2020), derivatives to make traditional medicine (Khan et al.,
In Asia, there is a demand for the alleged aphrodisiac properties of turtle meat. (Stoett & Omrow, 2021). Fat, carapace, and plastrons (Banjade et al., 2020) are commonly used as an ingredient of traditional medicines (Khan et al., 2018). Derivatives from Tricarinate Hill Turtle Melanochelys tricarinata (Uprety et al., 2021), a species found in India, Bangladesh and Nepal, are used in traditional medicines, while their shells are used for decoration purposes. Keeled Box Turtle Cuora mouhotii (Banjade et al., 2020) are also traded for medicine.

Malayan Box Turtle (Ali et al., 2015), Scorpion Mud Turtle Kinosternon scorpioides (de Cristo et al., 2017), Pig-nosed Turtle (Eisenberg et al., 2015), Softshell Turtle Amyda ornata, Burmese Peacock Softshell Nilssonia formosa, Burmese Narrow-headed Softshell Turtle Chitra vanjikai (Platt et al., 2017), and Podocnemis spp. (Charity & Ferreira, 2020) have been targeted for meat consumption.

**Threats of the pet trade**

A significant part of the trade of TFTs involves live specimens as pets. African Spurred Tortoise Centrocelys sulcata was the most traded TFT and the second most numerous of all live animals recorded on social media platforms in Thailand (Phassarudomsak & Krishnasamy, 2018). TFTs for pet trade constituted nine out of the top 10 CITES-listed wild-sourced live reptile species seized in 10 years (2007-2017). It included Yellow-spotted River Turtle Podocnemis unifilis (29.1%), Indian Star Tortoise (21.3%),
Asian Box Turtle (11.2%), Black Pond Turtle (7%). (World Wildlife Crime Report: Trafficking in Protected Species, 2020).

Pet trade often risks introducing species becoming invasive to the novel habitats, and competing with the native species for resources. Red-eared Slider Turtle, considered one of the most invasive species (Global invasive species database), was reported in trade (In Plane Sight: Wildlife Trafficking in the Air Transport Sector, 2018) and introduced as pets to non-native countries. Non-native species made up a significant portion of species recorded in illegal trade.

**Threatened species in trade**

![Radiated Tortoises © WWF-Madagascar](image)

It has been observed that the IUCN Red List species categorised as Threatened with Extinction are also exploited in their natural habitats for illegal trade (Morgan, 2018). The dwindling populations of Ploughshare Tortoise (Mandimbihasina et al., 2020), Spotted Turtle *Clemmys guttata* (Howell et al., 2019) and Big-headed Turtle *Platysternon megacephalum* (Sung et al., 2015), Radiated Tortoise (Stoner, 2018), Southern Vietnamese Box Turtle *Cuora picturata* (Janssen & Indenbaum, 2019), Four-eyed Turtle *Sacalia quadriocellata* (Le et al., 2020) and Vietnamese Pond Turtle *Mauremys annamensis* (Janssen & Indenbaum, 2019) cannot meet the demands of the illegal trade (Stanford et al., 2020).

CITES-listed species such as Black-rayed Soft-shelled Turtle *Amyda cartilaginea* (VU) (Banjade et al., 2020), Black Spotted Turtle (EN), Red-crowned Roofed Turtle (CR), Brown Roofed Turtle (NT), Three-striped Roofed Turtle(CR), and Assam Roofed Turtle (CR) (Stoner, 2018b), and Burmese Peacock Softshell (EN) (Platt et al., 2017) have been recorded in illegal trade. Similarly, endemic species like Home’s Hinge-back Tortoise *Kinixys homeana* (Musing et al., 2018), Radiated Tortoise (Manjozy et al., 2017), Keeled Box Turtle (Banjade et al., 2020), Burmese Narrow-headed Softshell Turtle (Platt et al., 2017) have been observed to be poached and illegally traded.

**Illegal trade of TFTs in Asia**

Laos PDR (Banjade et al., 2020), India (Rajpoot et al., 2019), Indonesia (Morgan, 2018), Thailand (Phassaradomsak & Krishnasamy, 2018), Myanmar (Platt et al., 2017), Vietnam (Linh et al., 2016), Nepal (Rawat et al., 2020), Bangladesh (Das et al., 2018) and Pakistan (Rehman et al., 2015) have recorded illegal trade in TFTs. Black Pond Turtles (Leupen, 2018) and Indian Star Tortoise (S. S. Stoner & Shepherd, 2020) (Morgan, 2018) (D’Cruze et al., 2015) are significantly traded in Asia. They are extensively sought after as pets in mainland China, Hong Kong SAR, Indonesia, Malaysia, Thailand, and Singapore (Leupen, 2018).

Many species from Africa, Europe, Madagascar, North America, and South America (Charity & Ferreira, 2020) have been observed in illegal trade in Asia (India) (Morgan, 2018). The Endangered Pig-nosed Turtle endemic to Australia and Indonesia’s river systems are traded at high value in the trade as a pet and for meat and traditional medicines (Shepherd et al., 2020).
Threatened species are often illegally traded in Asia. Amboina Box Turtle, Black Marsh Turtle *Siebenrockiella crassicollis*, and Asian Leaf Turtle *Cyclemys dentata* were observed in trade in Borneo and Indonesia (Fauzi et al., 2020). Black-rayed Soft-shelled Turtle, and Keeled Box Turtle in Lao PDR (Banjade et al., 2020), while Indian Narrow-headed Softshell Turtle, Red-crowned Roofed Turtle (Rajpoot et al., 2019) in India. The Critically Endangered Philippine Forest Turtle *Siebenrockiella leytensis*, Asian Leaf Turtles *Cyclemys dentata* and Southeast Asian Box Turtles were also recorded in large seizures in the Philippines involving more than 4000 turtles collected in over six months for the Chinese market (Thousands of Critically Endangered Palawan Forest Turtles Seized, 2015). Leopard Tortoise, Spur-thighed Tortoise, and African Spurred Tortoise exported from Africa were found destined primarily for the Republic of Korea, Japan, Hong Kong SAR, China, Thailand, and Malaysia (Outhwaite & Brown, 2018).

India has emerged as a prominent source country and other Asian countries, including Kuala Lumpur, Malaysia, and Thailand, served as transit and destination (S. S. Stoner & Shepherd, 2020) points for the trade.

Over 58,000 live individuals seized in trade between 2011–2015 belonged to over 15 TFT species of India. Indian Flapshell Turtle *Lissemys punctata*, Black Pond Turtle, Indian Star Tortoise were the main species encountered in the most significant number of seizures and comprised the largest numbers in trade in India (Mendiratta et al., 2017) (Mendiratta et al., 2017).

In 2019, an observation of illicit trade of TFTs over a decade in India by TRAFFIC estimated that over 11,000 individuals were traded every year or at least 200 per week since 2009 (Badola et al., 2019). As per the study, of all the seizures, species-level identification could be made in only 48.5% of cases. Among those identified, the Indian Star Tortoise accounted for 49% of the total individuals seized, followed by Indian Softshell Turtle *Nilssonia gangetica* (26%), Indian Flapshell Turtle *Lissemys punctata* (15%), and Black Pond Turtle (9%). The study also recorded six exotic species of turtles, accounting for about 37,404 exotic turtles either exported or bred in India for the pet trade.

**Trade around the world**

Radiated tortoises are high in demand in the international market. More than 17,000 Radiated Tortoises were seized in their native range of Madagascar in only two separate raids in 2018 (S. Stoner, 2018a). Chelonia (tortoises and freshwater turtles) are among the most hunted taxa in the Amazon (Chaves et al., 2020). In 2018, approximately 1.7 million turtles and tortoises were consumed in urban areas of Amazon, South America (Chaves et al., 2020). *Podocnemis spp.*, South American River Turtle *Podocnemis expansa*, Yellow-spotted River Turtle, Big-headed Amazon River Turtle *Peltoccephalus dumerilius*, Red-headed Amazon River Turtle *Podocnemis erythrocephala*, Six-tubercled Amazon River Turtle *Podocnemis sextuberculata* were recorded in illegal trade in Brazil (Charity & Ferreira, 2020).

The trade of TFTs in Europe involved individuals of the Greek/Common Tortoise, Home’s Hinge-back Tortoise, Hermann’s Tortoise *Testudo hermanni* (Musing et al., 2018). Pig-nosed turtle have been reported in trade in Papua New Guinea in Oceania (Eisenberg et al., 2015) Eastern Box Turtle *Terrapene carolina carolina*, Ringed Map Turtle *Graptemys oculifera*, Three-toed Box turtle *Terrapene carolina triunguis*, and Diamondback Terrapin *Malaclemys terrapin* have been seized in Canada (North America) (Stoett & Omrow, 2021).

**Mode of trade**

The TFT traders use road, train, and air transportation routes for trafficking the specimens within the country or to destination outside. Both regional and international travel routes are exploited to supply the consignments to their targeted locations.
Air transport has become an important mode of the illegal trafficking of wildlife (Utermohlen, 2020) (Utermohlen & Baine, 2017). Air transport is a preferable method to transport live animals as the world became more connected economically in trade and travel. Turtles and freshwater tortoises have been seized from cargo, carrying bags and luggage of international travellers worldwide (Stoett & Omrow, 2021) (Chng, 2014). Often, jam-packed in tapped and constricted packages deprived of movement, water, and food, many do not survive the journey. The seizures at two major airports in Turkey (Ataturk Airport) and India (Chennai Airport, Tamil Nadu) in 2017 collectively recovered over 7000 Red-eared Slider Turtles (In Plane Sight: Wildlife Trafficking in the Air Transport Sector, 2018).

Black Pond Turtles (Leupen, 2018), Pig-nosed Turtle (Shepherd et al., 2020), Indian Narrow-headed Softshell Turtle, Radiated Tortoise, Spider Tortoise, Ploughshare Tortoise, Indian Star Tortoise (Utermohlen & Baine, 2017), Alligator Snapping Turtle, Common Snapping Turtle Chelydra serpentina, Diamondback Terrapin (In Plane Sight: Wildlife Trafficking in the Air Transport Sector, 2018) have all been seized at airports around the world.

The internet and social media have become a prominent trading platform for traffickers and criminal networks. The e-commerce groups are being used for advertising wildlife and their derivatives to interested parties. In online trade markets in Vietnam, 15 different turtle species, most belonging to Geoemydidae, and Testudinidae were observed (Linh et al., 2016). Endemic and threatened TFT species from Madagascar were observed in illegal trade (Runhovde, 2018). TFT species illegally traded online were also reported in Malaysia (Krishnasamy & Stoner, 2016), Thailand (Phassaraudomsak & Krishnasamy, 2018), and the Philippines (Sy, 2018).

Legal status

The illegal trade in freshwater turtles and tortoises is a multi-million-dollar industry (Stoner, 2018) that thrives on exploiting threatened species. The trading of various Testudines is forbidden as they are protected under national and international laws of range countries and internationally through their enlisting in the CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) appendices. CITES is an international agreement between governments that aims to ensure that international trade in specimens does not threaten their survival. More than 200 Testudines species are listed under Appendix I, II, and III of CITES.


Way forward

There is a need to take swift action to safeguard the future of tortoises and freshwater turtles on this planet. It is critical to recognise and document the threats faced by the species to help catalyse the conservation efforts to ensure that their populations can thrive in the wild.

To help curb the trafficking of tortoises and freshwater turtles, it is strongly recommended to:

- **Strengthen protection status:** Identify the tortoises and freshwater turtle species impacted by illegal poaching and trade and advocate to update their protection status in the national and international listing. One such example was the uplisting of Indian Star Tortoise from CITES Appendix II to Appendix I (CITES CoP18) in 2019.
• **Monitor and analyse trade dynamics:** Understanding the dynamics of trade, including the methods of poaching, mode, and routes of trafficking through proper documentation, data collection, and information exchange of seizure and illegal activities among agencies and researchers, is crucial to developing strategies to curb trafficking of TFTs. Database like World WISE (UNODC World Wildlife Seizure database) and C4ADS’ Wildlife Seizure Database would help coordinate and analyse illegal wildlife activities and trade. Promote efforts to understand the financial and money laundering aspects of the illegal trade, such as those discussed by the Financial Action Task Force (FATF, 2020).

• **Ensuring global participation and cooperation:** Since a large part of TFT trade is international, organisations and agencies in various countries must cooperate to counter illegal trade and ensure the conservation of the species. Implementing the policies of The International Consortium on Combating Wildlife Crime, ROUTES partnership, Multilateral Environmental Agreements (MEAs) with international trade-related provisions, IUCN Tortoise and Freshwater Turtle Specialist Group (TFTSG), United for Wildlife, INTERPOL Wildlife Enforcement team. Working in coordination across organisations, agencies, and borders would help counter the global operatives of the trade.

• In the past successful operations made possible due to cooperation at the international level have led to significant seizures; Operation Thunder 2020 (1,400 turtles and tortoises and 6,000 turtle or tortoise eggs), Operation Cobra II (over 10,000 turtles), Operation Thunderbird (2017), PRAESIDIO (4,819 turtles and tortoises) and Thunderstorm (9,590 turtles), and FLYAWAY to name a few.

• **Capacity building of enforcement agencies:** This will help identify species and assure the successful implementation of punishments and penalties defined in the national and international laws governing the protection of the species. Organisations like the International Air Transport Association (IATA) have training modules for airport officials to combat the illegal wildlife trade. Green Customs Initiative (GCI) organise capacity-building workshops and training and development of tools and learning material for customs and other relevant enforcement. Other similar projects for customs include WCO INAMA Project (Asian, South American, and sub-Saharan African countries). CITES has an identification guide on turtles and tortoises for customs officers and other enforcement agencies responsible for enforcing these regulations. TRAFFIC, the Turtle Survival Alliance India (TSA India), and WWF-India have created new identification tools for enforcement officers to identify tortoises and freshwater turtles found in India correctly.

• **Using latest tools and techniques:** Promote the use of techniques and modern technology (DNA-based identification, tracking, and monitoring technology, Machine learning, detection equipment, Cloud-based technology like SMART) to identify and monitor the TFT species in trade. New methods to counter poaching and illegal trade like employing sniffer dogs have provided promising results across the globe.

• **Monitoring and curbing online wildlife crime:** Effective monitoring of illegal trade of TFTs on online platforms through a partnership with private sectors, such as "Alliance to Countering Crime, Coalition to end wildlife trafficking online" to address the growing concerns of online trade in wildlife is also crucial.

**References**


TRAFFIC Updates (India)

1. Multi-agency enforcement training organised to stop wildlife trafficking across high Himalayan borders

2. New enforcement tools to help curb the illegal marine molluscs' trade in India

3. Online campaign urges people not to buy, eat, wear or own protected wildlife species and their products

4. Short film released on 'World Pangolin Day' to highlight pangolin's poaching crisis

5. Indian Star Tortoise makes its way into the Vistara Inflight Magazine
EATING IS STEALING

OWNING STEALING

FACTS ABOUT PANGOLINS
THE WORLD'S MOST TRAFFICKED WILDLIFE MAMMAL

#WORLDPANGOLINDAY

An animal belongs to your home. Don't buy protected wildlife as pets.
Multi-agency enforcement training organised to stop wildlife trafficking across high Himalayan borders

The Himalayas extend across eleven Indian states and Union Territories. This region is a biodiversity hotspot and accounts for nearly 50% of India’s total flowering plants; nearly 30% are endemic to the area. Along with this, of the country’s entire mammalian species, 65% are also recorded from here. Similarly, about 50% of the India’s total recorded bird species, 35% of reptiles, 36% of amphibians and 17% of fishes are also documented from the Himalayan mountain ecosystem.

Due to these vast natural resources, Himalayas are also unfortunately on the radar of wildlife poachers and traffickers who smuggle illegal wildlife contrabands across states and international borders. In light of this challenge, TRAFFIC brought together various law enforcement agencies to help curb poaching and illegal trade of protected wildlife in the Himalayas through a one-of-a-kind training programme held on 2-3 March 2021.

Over 80 enforcement officials of Uttarakhand Forest Department, Police, Indo-Tibetan Border Police (ITBP) and Sashastra Seema Bal (SSB) attended this capacity building workshop. The aim to enhance their understanding of wildlife trafficking and strengthen skills in wildlife law enforcement in India. The workshop was organised by TRAFFIC in collaboration with the United Nations Development Program (UNDP) and Uttarakhand Forest Department under the GEF Funded Secure Himalayas project at an SSB’s camp in Didihat near Pithoragarh Uttarakhand.

Resource persons from Wildlife Institute of India (WII), Wildlife Crime Control Bureau (WCCB), and TRAFFIC conducted the training sessions spread over two days. The participants received an update on the latest trends in illegal wildlife trade, information on its repercussions on our ecosystem, common trade routes, modus operandi of
The harvest and sale of marine molluscs (soft-bodied animals that remain enclosed in their shells) have risen exponentially in recent years in India. Enforcement agencies have not had the capacity to monitor and curb this growing illicit trade. To address this, TRAFFIC and WWF-India have developed new identification (ID) tools to help authorities identify marine mollusc species and strengthen enforcement action against traffickers. These ID cards and poster were released online on World Wildlife Day on 3 March 2021.

India’s seashell market is extensive and driven by its demand for curios; for making accessories like buttons and combs, lampshades and fashion articles, and several other decorative items. TRAFFIC data related to seashell seizures between 2009-2019 indicates a sizable amount of ongoing illicit trade – the weight of reported seizures across the country during this period totalling more than 97,000 kg or nearly 10,000 kgs every month.

Discussions with enforcement agencies reveal that the challenges in curbing illegal seashell trade in India are mainly two-fold. Firstly, only a limited number of seashell species (24 of almost 3,400 species found in India) are protected under India’s Wildlife (Protection) Act, 1972.

The second challenge is related to the correct identification of species encountered in the illegal wildlife trade. TRAFFIC data shows that almost a third of seized seashell species could not be correctly identified to the species level by first-level enforcement officers during seizures. This lack of identification leads to wrongful seizures, poor case reports and ultimately, low conviction rates in illegal trade cases.

Authored by Dr Deepak V. Samuel; Dr Saket Badola, IFS; Dr R. Ravinesh; Dr A. Biju Kumar and Dr Mervyn Fernandes, these tools provide vital information about protected species of marine molluscs in India. They detail their legal and conservation status, distribution range, key identification features, and the threats they face.
“Seashells in India are openly sold not just in markets in coastal regions but also across the country,” said Dr Saket Badola, Head of TRAFFIC’s India Office. “Correct identification of seized species is the prerequisite for better enforcement as it helps secure commensurate conviction through courts. We are hopeful that the new ID tools, probably one of their kind in India, will aid wildlife law enforcement officers in their efforts to protect and conserve marine molluses.”

Dr Deepak V Samuel, a well-known marine biologist, said, "large quantities of shells are obtained as bycatch from bottom trawlers. Their nets are dragged along the seabed, collecting whatever is in their path. As the number of trawlers has grown in recent years, the landing of shells has risen from what was witnessed 30 years ago. Most of the shells gathered end up in trade. Therefore, enhancing knowledge among the fishing community and enforcement agencies about sustainable practices and conservation of marine molluses is crucial.”

The new ID tools have received widespread appreciation and support from various scientific and wildlife law enforcement agencies such as the forest department, police, border security forces, customs, DRI, and others.

Online campaign urges people not to buy, eat, wear or own protected wildlife species and their products

Owing to the almost urgent need to educate citizens about the growing illicit wildlife trade, TRAFFIC and WWF India ran an online campaign in January-February 2021 to address this gap.

The campaign - #EndWildlifeTrafficking - urged people to refrain from buying, consuming, owning or wearing protected wildlife species in India. It focussed on species such as Otters Lutrinae, Red Sand Boas Eryx johnii, Monitor Lizards Varanus spp, Seahorses Hippocampus spp and Tokay Geckos Gekko gecko, often extracted from their natural habitat for sale as curios, pets/aquaria trade; to make clothing/fashion articles; to fulfil the demand for occult practices or for use in traditional medicines.

These five species body parts and derivatives are used despite these protected under India’s Wildlife (Protection) Act, 1972 that prohibits their sale and trade.
The first campaign message, "Wearing is Stealing," informed people that products made from otters’ fur are prohibited for sale and purchase in India, and any indulgence can lead to punishment under the Wildlife Act. TRAFFIC studies have found all three otter species found in India - Eurasian Otter Lutra lutra, Smooth-coated Otter Lutrogale perspicillata and Small-clawed Otter Aonyx cinereus, being traded illegally.

The second campaign message, "Owning is Stealing," enlightened people that not every animal belongs in their home. It urged them to not keep species like Red Sand Boa and other protected wildlife as pets. In recent years, there have been reports claiming an upsurge in demand for Red Sand Boas across the country’s domestic illegal markets, mainly due to the new-age superstitions attached to them.

The third campaign message, "Possessing is Stealing," highlighted the plight of protected marine animals such as seahorses and others in the aquarium trade. Seizure reports indicate that seahorses are victims of large-scale curios and aquaria trade in India. Live wild-caught seahorses are traded to aquariums worldwide, whereas dead seahorses are used as ingredients in traditional medicines or used to make jewellery, key chains, and other such souvenirs.

The fourth campaign message, "Eating is stealing," aimed to educate people that species like monitor lizards and other protected wild animals should not be killed for food. It advised the public against buying or consuming protected wildlife species. Reports show that monitor lizards are extensively poached for meat in the country, considered a delicacy and believed to have medicinal properties. They are also targeted for their copulatory organs (male’s hemipenes). These are structurally similar to "Hatha Jodi" the root of the Tiger’s Claw Martynia annua; a plant with diverse traditional uses in Ayurveda.

The fifth campaign message of "Buying is Stealing" warned people against buying medicines and other products made from Tokay Gecko and other protected wildlife species. Tokay Geckos are heavily exploited for their use in traditional Asian medicines. There is high demand for their internal organs, meat and tongues, used as a perceived cure for various ailments.

The overall campaign message signifies that illegal possession or consumption of protected wildlife or the products made from them is similar to ‘stealing’ a highly valuable item from the natural ecosystem.

The online campaign launched on TRAFFIC and WWF-India’s social media platforms FACEBOOK, INSTAGRAM and TWITTER, has helped reach over 315,000 individuals. The campaign was also well received by the media. Over 38 media reports related to the campaign found on various online platforms.

FACTSHEETS ON OTTERS, MONITOR LIZARD, TOKAY GECKO, SEAHORSE AND RED SAND BOA RELEASED

Also released during the campaign were informative factsheets on these five wildlife species. These provide an insight into the species in general, interesting facts, conservation and legal status, threats and way forward. Laid out in attractive designs, these informative yet simple to read factsheets are useful for anyone to learn about wildlife. Free for downloading and sharing, at https://join.wwfindia.org/illegal-wildlife-trafficking/
Short film released on 'World Pangolin Day'
to highlight pangolin's poaching crisis

On 20 February, 'World Pangolin Day 2021', TRAFFIC and WWF-India released a short film on the pangolins in the illegal wildlife trade. The film titled "5 Facts about Pangolin: World’s most trafficked wild mammal" was released on digital platforms. The purpose to raise awareness about the world's only scaly mammals and gain support for their protection and conservation.

India is home to two species - Indian Pangolin *Manis crassicaudata* and Chinese Pangolin *Manis pentadactyla* – while globally, eight species are found in Asia and Africa. All eight pangolin species are protected under various national and international laws. In India, both the species are protected under India's Wildlife (Protection) Act, 1972 and their international trade is further restricted under CITES.

A 2018 TRAFFIC study found nearly 6,000 pangolins in the illegal wildlife trade in India between 2009 – 2017, believed to be the tip of the iceberg as most of the trade goes undetected. Globally more than one million pangolins have been illegally taken from the wild between 2000-2014 to feed the global demand for meat considered a delicacy and tonic food. At the same time, its scales are used as an ingredient in traditional medicines and for making fashion articles.

Through the film, TRAFFIC and WWF-India reached nearly 1,000,000 individuals on FACEBOOK, TWITTER, YOUTUBE and INSTAGRAM.

You can view the film at https://www.facebook.com/watch/TRAFFICIndiaOffice/

Indian Star Tortoise makes its way into the Vistara Inflight Magazine


Indian Star Tortoise *Geochelone elegans*, is a slow-moving and benign tortoise that gets its name from its star-like patterns and high domed shell. It is found in the forests, shrublands and grasslands of India, Pakistan and Sri Lanka. Owing to its attractive shell pattern and ease of handling, it is in high demand for illegal pet trade both in India and across the borders. Hence, it is reported to be the most trafficked tortoise in the world.

The "Protect the Wild" section of the Vistara inflight magazine was introduced in September last year to support TRAFFIC and WWF-India's initiatives. It highlights species in conservation crisis through dedicated advertorial space. The section has featured the Indian Elephants, Otters and Owls in past Issues.

TRAFFIC’s India Office thanked Vistara for their support in spreading awareness about many endangered wild animals
prone to poaching and illegal wildlife trade among its flyers. It hopes that this collaboration continues to recognise the work done by our organisation in safeguarding the wild animals around us.


**INDIAN STAR TORTOISE**

Slow-moving and benign, Indian Star Tortoise Geochelone elegans gets its name from its star-like patterns and high-domed shell. It is found in forests, shrublands and grasslands of India, Pakistan and Sri Lanka. The Indian Star Tortoise is an herbivore and when found in abundance, they act as dispersal agents for various plants via consumption of seeds and fruit thus playing a vital role in the ecosystem.

#DYK like all tortoise species, the Indian Star Tortoise also has a long life span ranging from 35-80 years in the wild. The female of the species is larger in size than the males.

The Indian Star Tortoise is protected under Schedule IV of India’s Wildlife (Protection) Act, 1972 that prohibits its collection, trade and any other form of exploitation. Any violation of the Act can lead to imprisonment, fine or both. Its international trade is also restricted under CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora).

**STARS OF ILLEGAL WILDLIFE TRADE**

The Indian Star Tortoise is reported to be the most trafficked tortoise species in the world owing to its attractive shell pattern and ease of handling. Demand for these illegal pets, both in India and across the borders is one of the major drivers of poaching, smuggling and illegal trade of Indian Star Tortoises.

TRAFFIC’s study for the period 2009-2019 had found at least 1,11,310 tortoises and freshwater turtles in illegal wildlife trade in India, of which Indian Star Tortoises accounted for 45% of the total animals seized. Live tortoises are poached from the forest and smuggled to illegal pet trade markets both in India as well as in Indonesia, Thailand, Malaysia, Singapore, Western Countries, North America and the Far East.

The combined effect of habitat loss, consumption as food and demand in exotic pet trade makes the future of Indian Star Tortoises unclear in the wild.

**YOU CAN HELP!**

**DO NOT BUY OR KEEP INDIAN STAR TORTOISES AS PETS!**

Support initiatives that help protect wildlife. **CONTRIBUTE** Scan the QR code to know more.

**TRAFFIC**

TRAFFIC is a leading non-governmental organisation working globally on trade in wild animals and plants in the context of both biodiversity conservation and sustainable development. In India, it operates as a programme division of WWF-India.

www.trafficking.org ; www.wwf.org ; www.traffic.org
1. Ninth batch of TRAFFIC's wildlife sniffer dogs begin training in Haryana

2. SUPER SNIFFERS ON THE PROWL
   (Update on TRAFFIC's wildlife sniffer dogs deployed for curbing wildlife crime in India)
Ninth batch of TRAFFIC's wildlife sniffer dogs begin training in Haryana

Specially trained wildlife sniffer dogs have proved themselves to be game-changers in the fight against wildlife crime. Having proved their competence in combatting other crimes in the past, TRAFFIC and WWF-India launched India’s first wildlife sniffer dog training programme in 2008 with just two dogs. On 12 April 2021, another 14 young dogs and their 28 handlers began training at the Basic Training Centre Indo-Tibetan Border Police Force (BTC-ITBP) camp in Panchkula, Haryana. On completing their seven-month-long training, these dog squads will take India’s wildlife sniffer dog (super sniffer) squad strength to 88.

Of the 14 that started their training, three dog squads will be deployed by the Forest Department of Maharashtra, two dog squad by the Forest Departments of Karnataka, Chhattisgarh and Odisha, and a one dog squad by Forest Departments of Uttar Pradesh, Gujarat and Tamil Nadu.

Under TRAFFIC’s newly formed alliance with the Railway Protection Force (RPF), two dog squads will also be deployed by the Southern and West Central regions of Indian Railways. Last year, RPF deployed two specialised wildlife sniffer dog squads for the first time in India to curb the smuggling of wildlife contrabands through the extensive railway network.

The new recruits between ages 6-9 months will undergo rigorous training that will help instil obedience, sniffing and tracking skills, and an unbreakable bond with their handlers, much required to become an efficient wildlife sniffer and tracker dog. They will be trained to detect Tiger and Leopard skins, bones and other body parts; bear bile; deer and antelope body parts; and several other illegal wildlife products.

Director, BTC-ITBP, Panchkula Haryana said: “The current batch of dogs is second to be trained by us in collaboration with TRAFFIC and WWF-India. We are looking forward to this partnership and are hopeful that all our joint efforts will come to fruition. These dog squads will be a vital tool in their states and organisations of deployment to protect India’s precious wildlife.”
SUPER SNIFFERS ON THE PROWL

Update on TRAFFIC's wildlife sniffer dogs deployed for curbing wildlife crime in India

While we were fighting the pandemic last three months, life was almost normal for our wildlife sniffer dog brigade. They remained busy assisting in wildlife seizures in their states of deployment. Given below is a quick update to highlight the star contributions of a few wildlife sniffer dogs in India between January – March 2021.

![Dog Simba and handlers © TRAFFIC](image)

<table>
<thead>
<tr>
<th>DATE</th>
<th>NAME OF THE DOG AND HANDLER</th>
<th>AGE/ BREED/ GENDER OF THE DOG</th>
<th>YEAR AND STATE OF DEPLOYMENT</th>
<th>LOCATION OF WILDLIFE SEIZURE/ POACHING CASE</th>
<th>ACHIEVEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>29-01-21</td>
<td>Dog Simba and handler Suresh Kumar Navarang</td>
<td>6 yrs/ Belgian sheepdog/ male</td>
<td>2016 / Chhattisgarh</td>
<td>Gariaband, Chhattisgarh</td>
<td>Helped seize a leopard skin which led to the confiscation of weapons.</td>
</tr>
<tr>
<td>7-02-21</td>
<td>Dog Tina and handler Padam Singh Rajput</td>
<td>3 yrs/ German Shepherd/female</td>
<td>2018 / Madhya Pradesh</td>
<td>Range between Taku and Saheli Railway junctions, Madhya Pradesh</td>
<td>Helped to track deer parts that were stolen from a deer killed on a railway line.</td>
</tr>
<tr>
<td>23-02-21</td>
<td>Dog Simba and handler Suresh Kumar Navarang</td>
<td>6 yrs/ Belgian sheepdog/ male</td>
<td>2016 / Chhattisgarh</td>
<td>Gandai Range, Division Khairagarh of Chhattisgarh</td>
<td>Helped solve an electrocution case involving wild boar, leopard and spotted deer. Through a night search, Simba helped in finding the bundles of electrocution wires used for poaching.</td>
</tr>
<tr>
<td>17-03-21</td>
<td>Dog Daisy and handler Ashok M. Jakhal</td>
<td>2 yrs / German Shepherd / female</td>
<td>2019 / Maharashtra</td>
<td>Umred Karhandla range, Nagpur</td>
<td>Helped to track a carcass of a tiger cub in the forest area.</td>
</tr>
</tbody>
</table>
1. Chasing Payments: Latest analysis exposes the financial underbelly of global wildlife crime
Chasing Payments: Latest analysis exposes the financial underbelly of global wildlife crime

The Case Digest-An Initial Analysis of the Financial Flows and Payment Mechanisms Behind Wildlife and Forest Crime—was released by TRAFFIC and UNODC on 18 March 2021. It provides a thorough examination of the financial crime data from more than 40 wildlife crime cases registered worldwide, including 11 detailed case studies. The report is a product of years of unprecedented collaboration between participating government agencies, financial intelligence units, nongovernmental organisations and other sector experts.

TRAFFIC and UNODC canvassed the globe for cases, with valuable contributions from leading financial crime partners. The aim to identify examples of previous financial investigations and analyse and build out specific patterns, trends, and recommendations for practitioners. The report also includes specific red flag indicators, criminal network diagrams, identified corruption vulnerabilities, lists of associated high-risk entities, and data on the convergence between wildlife and other crimes.

The cases included in the report represent a cross-section of geographic regions within Africa, Asia and Latin America and a range of terrestrial and marine species targeted by criminal syndicates.

One of the most significant report findings was the payment mechanisms and laundering techniques used by criminals to evade detection are as creative as the means to move the physical products. A wide range of payment types and laundering techniques were identified, including domestic and international wire transfers, trade-based money laundering, mobile money platforms, money transfer service companies, hawala, nominee and legitimate business accounts, and high use of cash-intensive business.

“This book is very welcome, as it starts to demystify how financial crime linked to wildlife and forest operates. It is a useful tool to assist countries. We hope that it serves as a basis for pursuing financial investigations to detect and deter organised criminal groups from engaging in these crimes. We look forward to further publications on similar themes as the extent of knowledge around the world on this vital subject increases.” Jorge Rios, Chief of UNODC's Global Programme for Combating Wildlife and Forest Crime.

“The lack of precedent in applying financial investigative techniques to wildlife crime cases is a significant barrier to combating illegal wildlife trade. Until recently, there has been a gap in the data and information available. Our financial institution and law enforcement partners identified, but this report helps fill those gaps in knowledge. By presenting real-life case examples that illustrate the sophistication of the financial mechanisms being used by wildlife traffickers, investigative units and other stakeholders will be able to more strategically target their resources and intelligence systems to disrupt this illicit trade.” Nick Ahlers, Africa Programme Director for TRAFFIC and a principal contributor to this publication.

Viewing wildlife crime as a financial crime has gained significant momentum in recent years. This report builds on recently published reports by the Financial Action Task Force (FATF) in June 2020, The EGMONT Centre of FIU Excellence and Leadership, ECOFEL, in January 2021 and the work of the United for Wildlife Financial Taskforce partners.

On 15 March 2021, CITES Secretariat, on behalf of the Chairs, notified the Parties that the 31st meeting of the Animals Committee and the 25th meeting of the Plants Committee will be held from 31 May - 4 June 2021 and 21 - 24 June 2021.

Under the current situation, the meeting will take place online. It will be live-streamed on the CITES YouTube Channel. The committee is likely to discuss several crucial issues related to the international trade of flora and fauna.

Source:
TRAFFIC Alert

1. 3,396 Indian softshell turtles seized in West Bengal in transit to Bangladesh

2. Forest officials seize 414 live Indian Star Tortoises in Andhra Pradesh

3. Two endangered Radiated Tortoises and one Aldabra Tortoise seized by Assam Rifles in Manipur
3,396 Indian softshell turtles seized in West Bengal in transit to Bangladesh

In January 2021, West Bengal police seized 3,396 Indian Softshell Turtles, apparently intended to be smuggled to Bangladesh, from two mini-trucks at two locations under the Barrackpore Police Commissionerate. Titagarh Police recovered 1,559 turtles hidden under potato sacks from a mini-truck at Chiria More on BT (Barrackpore Trunk) Road. At the same time, the Belgaria police uncovered 1,837 more while investigating a vehicle on Neelganj Feeder Road. Four persons — two in each case — have been detained.

TRAFFIC adds.....

Indian Softshell Turtle, also called the Ganges Softshell Turtle Nilssonia gangetica, is found in the river systems of the Ganges, Indus, and Mahanadi in north India. It is listed in Schedule I of India’s Wildlife (Protection) Act, 1972, which prohibits its poaching, trade or any other form of utilising the species. Its international trade is further prohibited under CITES Appendix I (Convention on International Trade in Endangered Species of Wild Fauna and Flora.)

Over a ten year period, a TRAFFIC study, “Tortoises and Freshwater Turtles Under Siege” had found a minimum of 1,113,310 tortoises and freshwater turtles in the illegal wildlife trade in India from September 2009 to September 2019. Of this, the Indian Softshell Turtle accounted for nearly 26% of the turtle species seized. According to the study, removal from the wild for illegal trade as pets and food and medicine were identified as the main drivers of the tortoise and freshwater turtle trade in India.

Besides the demand for meat and eggs for local consumption, N. gangetica is in great demand in illegal international markets as its calipee is used to make traditional Chinese medicines, and its flesh is consumed as a delicacy in many countries.

Besides, illegal wildlife trade, habitat loss by hydrologic modification, accidental trapping in fishing nets, and sand mining are significant threats to the species’ survival.

Sources:
Forest officials seize 414 live Indian Star Tortoises in Andhra Pradesh

In January 2021, the Forest Department seized 414 live Indian Star Tortoises from a gang smuggling the animals from the Samalkota area in East Godavari district in Andhra Pradesh to Malkangiri district in Odisha. During the raid near the Burugupudi forest check post in the East Godavari district, the forest officials apprehended the gang and arrested two members. The cases under the Wildlife (Protection) Act, 1972 were registered against the duo.

TRAFFIC adds.....

Indian Star Tortoise *Geochelone elegans* is reported to be one of the most heavily trafficked tortoise species globally. Protected under Schedule IV of the Wildlife (Protection) Act, 1972, it is found in the northwestern states of Gujarat and Rajasthan, and in the southern states of Andhra Pradesh, Karnataka, Kerala, Madhya Pradesh, Orissa, and Tamil Nadu.

Illegal collection for the international wildlife trade is of most prominent concern. D’Cruze et al. (2015) had reported illegal collection of at least 55,000 (primarily juvenile) specimens from just one location (comprising 16 villages) from the State of Andhra Pradesh in India over one year. This figure was three to six times larger than the 10,000–20,000 individuals previously estimated to be poached throughout the entire range of this species each year (Sekhar et al., 2004). There are concerns that the Indian Star Tortoise is being smuggled from India and Sri Lanka into pet markets in Asia, Europe and the United States (de Silva 2003; Horne et al. 2012; Vyas 2015). However, most animals appear to be destined for use as exotic pets in Asian countries, such as Thailand and China (Shepherd et al. 2004; D’Cruze et al. 2015; D’Cruze et al., 2016). Locally, in rural areas, *G. elegans* are sometimes eaten for subsistence (Anand, 2005; D’Cruze et al., 2015). However, they are also kept as pets in many homes, their owners believing that they bring good luck and fortune (Anand, 2005; D’Cruze et al., 2015).

The threat to the species from over-exploitation due to illegal wildlife trade across borders resulted in Indian Star Tortoise uplisted to Appendix I of the CITES at the CoP 18 in March 2019. However, this has not deterred its illegal trade. It continues to be poached in its home range for illicit pet trade for domestic markets in India and international destinations.

Stringent enforcement action to curb this poaching crisis is crucial to the future of Indian Star Tortoises.
Sources:

Two endangered Radiated Tortoises and one Aldabra Tortoise seized by Assam Rifles in Manipur

In January 2021, the Assam Rifles in the Chandel district of Manipur detained a smuggler carrying rare, critically endangered and non-native species of the tortoise. The tortoises were suspected to be trafficked from Southeast Asian countries. The arrested smuggler is a local carrier assigned to transport the animals from the Indo-Myanmar border to Imphal's capital city.

TRAFFIC adds.....

Both Radiated Tortoises Astrochelys radiata and Aldabra Tortoise Aldabrachelys gigantea are exotic species, i.e. non-native to India. Radiated Tortoises are mainly endemic to Madagascar but have now been introduced to the islands of Réunion and Mauritius. While the Aldabra Tortoise, one of the largest land tortoises, is a resident of the Aldabra Atoll islands in Seychelles.
The Critically Endangered Radiated Tortoise, once found in abundance, has been severely affected by exploitation for the illegal wildlife trade. Reports have indicated that due to demand for food and international pet trade markets, its population may have declined by more than 80% across its distribution. Though protected under national and international laws, the species continues to be poached, making its way into global markets. According to studies between 2009 and 2016, an estimated 15,000 tortoises were illegally caught per year in Madagascar for national and international traffic.

Aldabra Tortoise is listed in Appendix II of CITES. Despite the legal protection, it continues to be found in the illegal exotic wildlife trade.

India is a growing consumer of non-native pet species, for example, birds like cockatoos, conures, parrots and macaws, mammals including chimpanzees, marmosets, sugar gliders and wallabies, and reptiles such as various species of turtles and tortoises, pythons, bearded dragons, green iguanas, and more. Although these species are not protected under the Wildlife (Protection) Act, 1972, their trade is regulated through India’s EXIM policy and the Customs Act 1962. Their international trade and transport are regulated under CITES. However, unscrupulous traders sometimes forge documents or take advantage of loopholes in the existing legislation. Furthermore, it is difficult to tell if animals are wild-caught or bred in captivity.

Strengthening enforcement and legal intervention, coupled with awareness, are crucial to curbing the illegal trade of non-native species in India.

Sources:

(A glimpse into strange and unknown wildlife products and derivatives found in illegal wildlife trade)

**Fashion a bane for India's marine turtles**

Mayuri Chopra; TRAFFIC, India Office
Fashion a bane for India’s marine turtles

Estimated at $2.5 trillion globally and employing more than 300 million people worldwide, the fashion industry is one of the biggest on our planet. It substantially drives the global GDP (Amed et al., 2017). Apart from the economic contribution, fashion’s impact on wildlife is vast and often overlooked due to a lack of awareness and source traceability. Billions of animals act as raw material for the production of fashionable clothing and accessories, adversely affecting biodiversity and possibly threatening several species’ future. Turtles, too, have been victims of this and have found their use in numerous fashion-driven products, especially its skin and shell.

Global trade in all marine turtles is restricted under CITES (Convention on International Trade in Endangered Species of Flora and Fauna). In India, marine turtles are listed under Schedule I of the Wildlife (Protection) Act, 1972; hence capture, hunting, sale and possession of the species are illegal.

Despite the legal status, marine turtles are targeted to cater to the demand for fashion products. Hawksbill Turtles *Eretmochelys imbricata* is one such species ‘in fashion’. Their multi-coloured ‘carapace’ or shell helps them camouflage among bright reefs. However, beauty comes as a curse for these charismatic species as their shells are used to produce in-trend hoop earrings, necklaces, eyewear and hair accessories. The use of bright amber turtle shell pattern by various high-end brands has heightened popularity amongst customers in recent years.

Hawksbill Turtles are categorised as Critically Endangered under the IUCN Redlist of Threatened species with a declining population. Scientists estimate that only 15,000-20,000 nesting hawksbill females remain worldwide, only a fraction of their former population.

Green sea turtles *Chelonia mydas* (Endangered with decreasing population trend), Olive Ridley *Lepidochelys olivacea* (Vulnerable and declining population trend) and Leatherback turtles *Dermochelys coriacea* (Vulnerable and declining population trend) are also affected by the demand for leather by the luxury goods industry. Amongst these, Olive Ridleys are reported to be the most favoured species for the leather trade. However, due to protection regulations in place, the market is mainly clandestine.

Seizures around the world in the past decade confirm that the turtle leather trade continues to exist. In 2012, the U.S. Fish and Wildlife Services made two arrests for the sale of sea turtle leather shoes and boots on an online platform. Since turtle products were once legal, several high-end luxury advertisements and products are labelled ‘vintage’ to hide whether the turtle parts are newly poached or old stockpile.
According to the U.S. Fish and Wildlife Services, demand for turtle shells exists in the black market, especially in Japan, where the use of bekko combs (Japanese for hawksbill shell) is of cultural significance at weddings.

A study conducted by The Ocean Foundation in 2017, across nine countries in Latin America and the Caribbean, reported more than 10,000 turtle shell products at over 200 stores and artisan stalls (30% of visited locations), with an estimated value of USD 52,000 (Harrison et al., 2017).

Lack of awareness about the legality of products sourced from turtles is a major factor that enables the sale of these products in both open and clandestine markets. Additionally, little knowledge of the source of the product and its animal origin leaves consumers in the dark while indirectly increasing demand by purchasing these products. Hence consumers must identify genuine turtle shell fashion products to avoid the purchase.

YOU CAN HELP BY REFUSING TO BUY FASHION ACCESSORIES MADE FROM TURTLES. HERE ARE SOME TIPS FOR IDENTIFICATION!

Growing ethical consumerism, increased advocacy for animal welfare and raising environmental concerns have attracted criticism to animal fashion products. Nonetheless, the rarity factor plays a role in sustaining the demand for wildlife products in fashion worldwide.

The amber kaleidoscope-like translucent pattern of turtle shells has become vogue in the past few years. Imitations of this pattern are also widely available and can often be confused with turtle shell trinkets. Imitation jewellery is made of acrylic, seashells, cow horn and polished coconut shells.

Faux and genuine turtle shell products have minor differences which can be identified with the help of:

1. **Visual identification**: Turtle shells are dark brown with an orange or amber pattern and the opacity is transparent with light areas. Cow horn is black, grey, white or creamy yellow, seashells have a white and black majorly spot-like pattern, while coconut shells are tan brown with light-colored nicks and opaque. Turtle shells usually have transparent amber light areas when held against the light.

2. **Flexibility**: Turtle shells are flexible and thin, while cow horn, coconut shell and plastic are not flexible.

3. **Burn test**: Acrylics are petroleum-based, while turtle shells are made of natural fibres; hence the aroma of burning is distinctly different for both materials. Petroleum-based products have a chemical-like smell when burnt, while turtle shell smell similar to the burning of hair.

References

3. Turtle Shell Trade. [Seeturtles.org](https://www.seeturtles.org/turtle-shell-trade).
TORTOISES AND FRESHWATER TURTLES OF INDIA
Identification poster

<table>
<thead>
<tr>
<th>Type</th>
<th>Scientific Name</th>
<th>Common Name</th>
<th>Conservation Status</th>
<th>Distribution</th>
<th>Identification Features</th>
<th>Threats</th>
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<tbody>
<tr>
<td>Freshwater Softshell Turtle</td>
<td>Nilssonia amboinensis</td>
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<td>Shell and carapace flat, head and tail long.</td>
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The leopards were spotted near Dhepa in Kangra.

Three leopard hides confiscated, 2 held

Himachal Pradesh: Dhepa police in Kangra district arrested two smugglers on a motorcycle carrying three leopard hides last night.

The leopard hides confiscated near Dhepa in Kangra.

Sea cucumbers worth ₹5.4cr seized, global racket busted

According to sources, the Lakshadweep Wildlife Protection Force Warden, Subedar and the poaching camp were controlled by a gang consisting of poachers, including four main ringleaders and 10 underlings. The police have launched an investigation to identify the ringleaders and other accomplices involved in the poaching racket.

Two arrested with five star tortoises

MUMBAI: The Sewri police have arrested two persons for illegally transporting star tortoises recently. The police have recovered five star tortoises and seized the accused to be part of an interstate smuggling of protected animal species. The two are identified as Mohammad Yaseen Ramjan Momin, 22, and Asghar Ali Shaikh, 34. According to the police, recently, they apprehended two people near Ray Road railway station after their movements were found to be suspicious. During their search, the police seized at least five star tortoises. The tortoises are worth ₹1.5 lakh, said the police. The Indian star tortoises are found in dry areas and scrub forests in India, Sri Lanka and Pakistan. The species is popular in the exotic pet trade as a reason it is a threatened species.

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