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REPORT

MAY 2018

BLACK SPOTTED TURTLE TRADE IN ASIA II

A Seizure Analysis (2014 – 2016)

Boyd T. C. Leupen

TRAFFIC REPORT

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Front cover photograph: Illegally traded Black Spotted Turtles *Geoclemys hamiltonii* in transport.

Credit: Serene Chng/TRAFFIC

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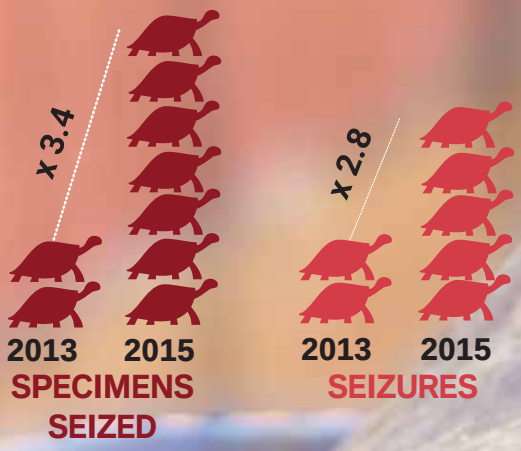
ABBREVIATIONS AND ACRONYMS

CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
DNA	Deoxyribonucleic acid
IUCN	International Union for Conservation of Nature
kg	kilogramme
MA	Management Authority (CITES)
n	number
NGO	Non-governmental organisation
PDR	People's Democratic Republic (Lao)
SAR	Special Administrative Region (Hong Kong)
USD	US Dollar

BLACK SPOTTED TURTLE SEIZURES IN ASIA 2014–2016

TRADE TRIPLED

Latest study found trade in 2015 was 3x that previously found in 2013.



10,321 specimens seized

53 seizures

Seizures in 7 different countries

47% of seizures involved smuggling using commercial flights

55 suspects arrested–20% resulted in known convictions

Black Spotted Turtle

RED LIST <VULNERABLE>

- *Geoclemys hamiltonii*
- CITES Appendix I (No commercial international trade permitted)
- Sought after as a pet, and traditionally for meat in East Asia

Read more: TRAFFIC Report : Black Spotted Turtle Trade in Asia II: A Seizure Analysis (2014–2016)

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EXECUTIVE SUMMARY AND RECOMMENDATIONS

The Black Spotted Turtle *Geoclemys hamiltonii*, native to South Asia, is a heavily trafficked chelonian, despite the presence of national laws prohibiting local trade in the species throughout its range and despite its listing in Appendix I of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) in 1975, prohibiting all commercial international trade. A 2014 TRAFFIC study found that Black Spotted Turtle trade numbers had significantly increased between 2013 and 2014, with more than 1960 turtles seized in a total of 22 recorded incidents. This sudden escalation of the trade was a cause for concern and called for improved regulations and continued monitoring efforts. To understand the development of the Black Spotted Turtle trade since then, the current study was conducted, analysing seizures for the two-year period between April 2014 and March 2016.

During this period, 53 Black Spotted Turtle seizures, involving a total of 10 321 specimens, have reportedly taken place. This constitutes more than two times the total number of seizures and more than five times the total number of specimens found in the 2014 study. Both the annual number of Black Spotted Turtle seizures and the annual number of specimens seized have approximately tripled between 2013 and 2015. Four previously unrecorded seizures were also found to have taken place between January 2008 and April 2014, bringing the total number of recorded Black Spotted Turtle seizures during that period to 26 and the total number of specimens seized during that time to 2171. These additional incidents all took place in late 2013 and early 2014, underscoring the 2014 study's conclusions about the intensification of the Black Spotted Turtle trade in 2013. These numbers may also be indicative of enhanced enforcement and/or reporting efforts Nevertheless, such efforts appear to vary among the different countries involved in the international Black Spotted Turtle trade chain.

Black Spotted Turtle seizures were found to have taken place in 24 different locations in seven countries/territories, all of which are on the Asian continent. The highest number of seizures (n=20/38%) occurred in India, accounting for a total of 3001 (29%) specimens. These seizures occurred across the country, but appeared to be particularly abundant in the southern and eastern regions, with Chennai, a large city situated outside India's Black Spotted Turtle range, functioning as one of the country's most important collection and distribution hubs. A comparatively high number of seizures (n=12/23%) was also found to have occurred in Hong Kong SAR, accounting for a total of 1775 (17%) specimens.

The Black Spotted Turtle trade is largely driven by East Asian demand. Shifting trends in China and Hong Kong SAR now indicate the species is desired as pets, where previously it was mainly sought after for its meat. These shifting trends are partly confirmed by the fact that all recorded seizures involved shipments of live animals (although in some cases large numbers of turtles were found to have died in transport). Black Spotted Turtles are primarily sourced in India, Pakistan and Bangladesh and subsequently transported to East Asia, often through Southeast Asian transit hubs, particularly Thailand and Malaysia. The scale of the Black Spotted Turtle trade in Southeast Asian countries appears to be modest, but it is likely that at least part of the shipments seized there are destined for local markets.

Almost half of all seizure records involved air transportation using commercial flights (n=25/47%). During the research period, at least 55 suspects were apprehended by local authorities in 55% (n=29) of the recorded seizure incidents, mostly in India (32 suspects). Conviction rates appear to be low throughout the region, with 20% of arrests reportedly resulting in a confirmed conviction.

Currently, illegal collection for trade is among the biggest threats to Black Spotted Turtle populations throughout the species' range. The absence of hatchlings observed in trade suggests that captive breeding programs do not supply the Black Spotted Turtle trade in a significant way. To de-escalate the Black Spotted Turtle trade and secure this species' continued survival, TRAFFIC recommends the following:

Enforcement and Regulation

• Enforcement efforts must be improved across the Asian region. Intelligence-led investigations, among relevant enforcement agencies will prove crucial, not only to the disruption of Black Spotted Turtle trade players, but also to the collection of accurate data for trade analysis. Enforcement efforts should particularly be enhanced and/or sustained at the identified trade hotspots (Karachi in Pakistan, Chennai in India, various places along the India-Bangladesh border including Kolkata and Kalanchi, the airports of Dhaka (Bangladesh) and Bangkok (Thailand),

Malaysian transport hubs including Kuala Lumpur International Airport and Port Klang, and the airport, port and markets in Hong Kong SAR).

• Reporting efforts should be improved on both national and international levels. On a national level, reporting between local (or regional) and national enforcement authorities will facilitate coordinated enforcement efforts. On an international level, governments' reporting to CITES should be improved. Such improved reporting should also entail adherence to the new annual illegal trade reporting requirements as set out in CITES Notification 007 (February 2016), which include the provision of comprehensive accounts of actions, outcomes, seizure and prosecution details.

• Prosecution efforts should be improved. Such improvement can be realised by raising the profile of the freshwater turtle trade in general, and the Black Spotted Turtle trade in particular, among enforcement agencies and judiciaries. Intelligence-led investigations should be used to ensure strong prosecution, involving high penalties, against traffickers to deter future offenders.

• International cooperation between relevant national enforcement agencies and authorities must be improved to better monitor and regulate the international trade and facilitate the repatriation of seized specimens.

• International cooperation between relevant national enforcement agencies and authorities should also be improved to engage in investigations that go beyond single smuggling cases and aim to dismantle the international smuggling rings and organised crime networks that are behind the international Black Spotted Turtle trade.

Monitoring and Research

• Given that any trade in the species, domestic or international, is illegal, continued research into – and monitoring of – the Black Spotted Turtle trade should be conducted to improve understanding of trade trends and dynamics. Research findings should also be used to support law

enforcement interventions. Research efforts should include seizure analyses, market surveys and online trade monitoring in the identified destination countries/territories (China and Hong Kong SAR). They should also include studies into Southeast Asian countries' potential roles as destination countries (Indonesia, Malaysia and Thailand in particular).

• Further research into the status of wild Black Spotted Turtle populations – and the conservation impacts of the trade in this species – should be conducted. Such research should include studies of wild populations in range areas and DNA analyses of wild and seized individuals to obtain known provenance information which will assist repatriation efforts.

Public Awareness

• Public awareness concerning the deteriorating effects of the freshwater turtle trade in general, and the Black Spotted Turtle trade in particular, should be increased. Awareness initiatives to reduce demand and to increase knowledge about the illegality of the trade in Black Spotted Turtle trade should be carried out among consumers in destination countries and among local communities and hunters in source countries.

INTRODUCTION

Illegal wildlife trade continues to be seen as the greatest threat to Asian tortoises and freshwater turtles (Compton, 2000; Van Dijk, 2000; Cheung and Dudgeon, 2006; Nijman and Shepherd, 2007; Gong *et al.*, 2009; Noureen, 2009; Lyons *et al.*, 2013; Nijman and Shepherd, 2015). Among these threatened chelonians is the Black Spotted Turtle *Geoclemys hamiltonii*. Like most tortoises and freshwater turtles, the Black Spotted Turtle is sought after for its meat and, more recently, has become a prized species for the pet trade (Noureen, 2009; Das and Bhupathy, 2010; Lyons *et al.*, 2013; Chng 2014; Nijman and Shepherd, 2015). Additionally, it has sometimes been used in the fabrication of traditional medicines (Das and Bhupathy, 2010). The species naturally occurs in Bangladesh, India, Nepal and Pakistan (Das and Bhupathy, 2010) (**Figure 1**).

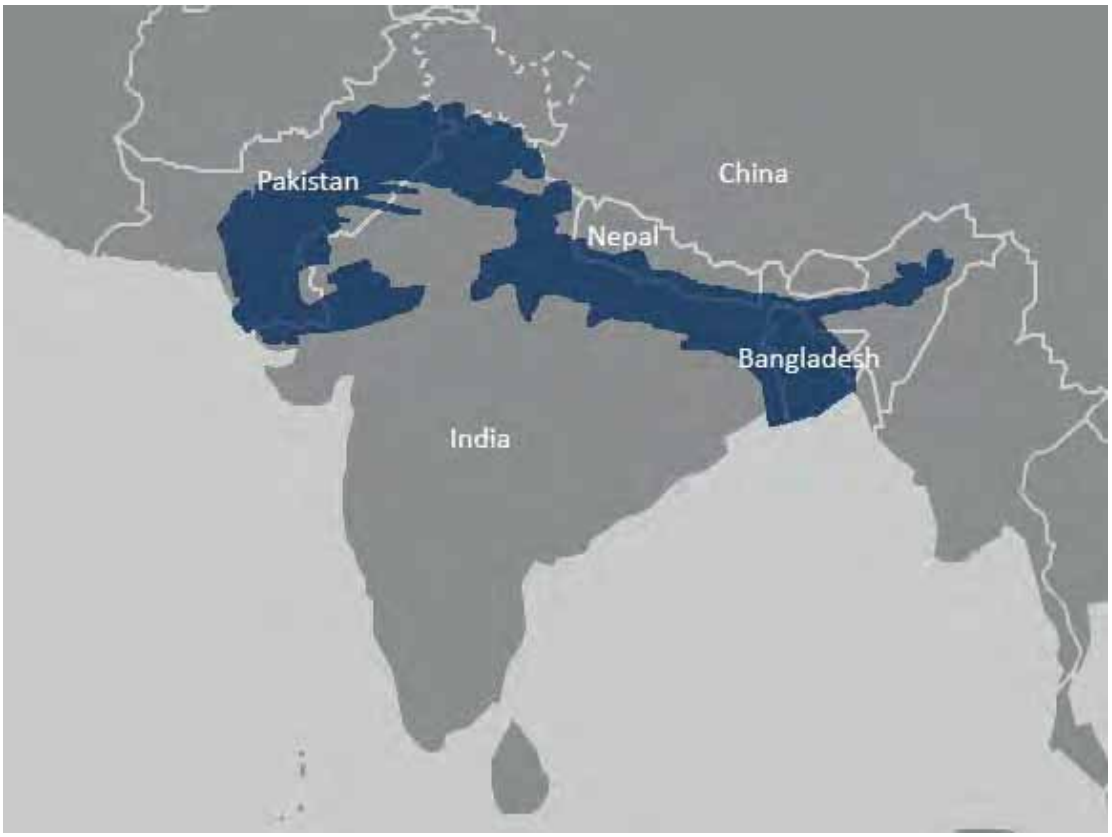

Figure 1: Black Spotted Turtle *Geoclemys hamiltonii* distribution, in Pakistan, India, Nepal and Bangladesh. *Source: Das and Bhupathy 2010*

Globally, the Black Spotted Turtle is classified as Vulnerable on the IUCN Red List of Threatened Species (Asian Turtle Trade Working Group, 2000). At a country level, the IUCN Red List classifies the species as Vulnerable in India and Endangered in Bangladesh. The species' conservation status has not been assessed in Nepal and Pakistan. As the most recent status assessment for this species dates from 2000, current regional and local population statuses remain uncertain. The Black Spotted Turtle is protected under national law throughout its natural range, prohibiting hunting and trade, and is listed in Appendix I of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) since 1975, prohibiting all commercial international trade (CITES, 2016).

In 2014, a TRAFFIC study shed light on what was a worrying intensification of the Black Spotted Turtle trade (Chng, 2014). In an extensive global seizure analysis, it was found that 22 incidents

concerning this species had taken place between January 2008 and March 2014, involving more than 1960 specimens (Annex I). The majority of these specimens (95%) was seized in the final year of the study period, seemingly marking a sudden spike in trade levels during that period (Chng, 2014). The current study was undertaken in order to assess the development of the Black Spotted Turtle trade since April 2014.

METHODS

In order to assess the recent development of the global Black Spotted Turtle trade, and following TRAFFIC's 2014 study, an extensive seizure analysis was conducted for the period between April 2014 and March 2016. Older records (from January 2008 onwards) were also collected in order to check for potential data gaps in the 2014 study. Seizure data were mainly collected from online open media sources, recorded in TRAFFIC's seizure database. Additionally, formal requests for Black Spotted Turtle seizure records were sent to the CITES Management Authorities (MA) of Bangladesh, Cambodia, Hong Kong Special Administrative Region (SAR), Indonesia, India, Lao PDR, Malaysia, Myanmar, Nepal, Singapore, Thailand, and Viet Nam. These countries/ territories were selected on the basis of their roles as source and/or (potential) transit countries in the international trade chain, as indicated in the 2014 study. Although the 2014 study does not mention Cambodia, Singapore and Viet Nam as (potential) transit points countries, these countries have been known to function as such in the illegal international trade of other species in the region and were therefore included in the current study. Of the approached MAs, those of Malaysia, Singapore and Hong Kong SAR provided the requested data – no other countries replied to this request.

Records were also extracted from the CITES trade database (https://trade.cites.org/). Only trade records involving seized specimens were included in this study. Additionally, seizure data were requested from various NGOs. Data were only received from WWF Pakistan. All (suspected) duplicate records were omitted from the analysis. Information regarding the date and locality of

seizures, the number of animals seized, the confirmed or intended trade route, mode of transportation used and the identity of the offender was extracted where available.

It should be noted that, due to the covert nature of the illicit Black Spotted Turtle trade, the records used for this study are likely to represent only a fraction of actual trade volumes, as enforcement action does not pick up all illegal trade, and not all enforcement action is reported.

RESULTS

Between April 2014 and March 2016, a total of 53 Black Spotted Turtle seizures were found to have taken place, involving a total of 10 321 specimens (for a detailed account of these seizures see Annex II) – eclipsing the number of seizures found in the previous study. These seizure records show that both the annual number of Black Spotted Turtle seizures and the annual number of specimens seized have approximately tripled between 2013 and 2015 (**Table 1**). The year on year growth of the trade is staggering, while only 37 specimens were reportedly seized in 2009 (and no seizure records were found for 2008), this number was found to have risen to 5500 in 2015 (**Figure 2**).

Additionally, four previously unrecorded seizures, involving a total of 211 specimens, were found to have taken place between January 2008 and April 2014. These records were added to the 2014 study's dataset (**Annex I**), bringing the total number of recorded Black Spotted Turtle seizures between January 2008 and March 2014 to 26 and the total number of specimens seized during that time to 2171. These additional incidents all took place in late 2013 and early 2014, underscoring the 2014 study's conclusions about the intensification of the Black Spotted Turtle trade in 2013.

Year	Number of Seizures	Number of Specimens	Number of Specimens per Seizure (median)
2013	11 (15%)	1613 (13%)	72
2014 (January – March)	7 (10%)	463 (4%)	58
2014 (April – December)	13 (18%)	4359 (35%)	229
2014 (total)	20 (28%)	4822 (39%)	218
2015	31 (44%)	5500 (44%)	97
2016 (January – March)	9 (13%)	462 (4%)	32
Total	**71**	**12 397**	**94**

Table 1: Number of seizures and specimens seized between January 2013 and March 2016 (using combined data from the 2014 study and the current study).

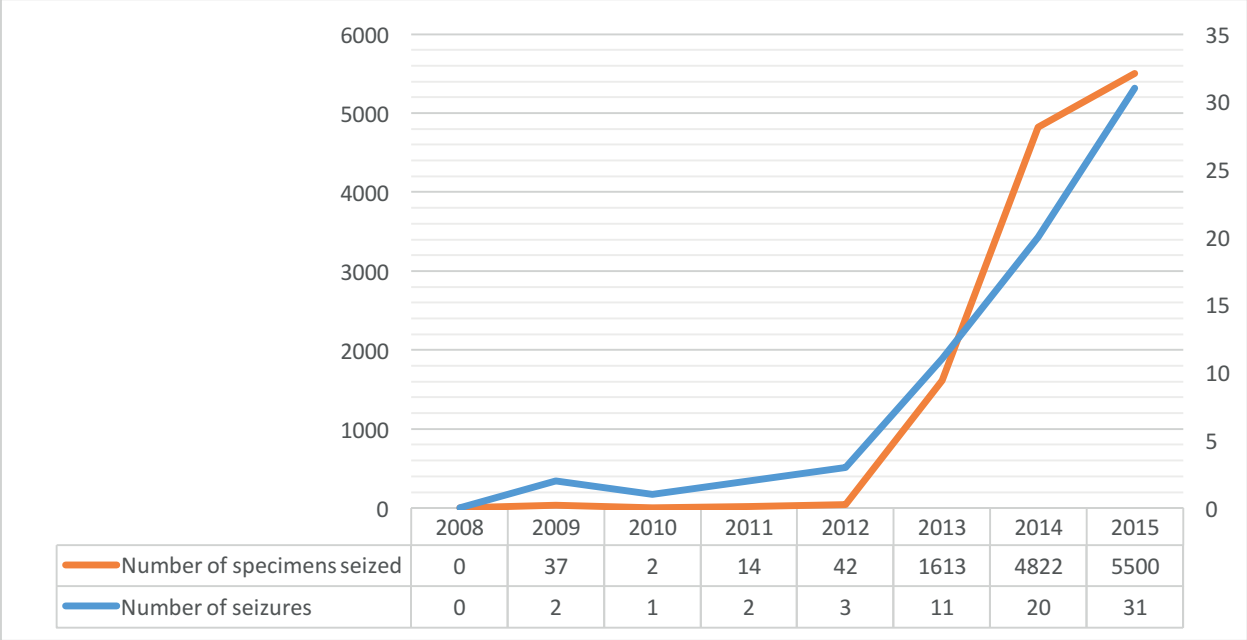

Figure 2: Numbers of seizures and specimens seized per year between 2008 and 2015 (only years for which 12 months of data were available were included in this graph) .

Two other additional trade records, involving a total of 234 seized Black Spotted Turtles, were found in the CITES trade database (**Table 2**). Both records were found to have taken place in 2014, with the largest one involving the repatriation of 200 turtles from China to Pakistan (after a large Black Spotted Turtle seizure near Urumqi in June of the same year).

Year	Importer	Exporter	Origin	Importer Quantity	Exporter Quantity	Purpose	Source
2014	The Netherlands	Hong Kong SAR	Unknown	34	Unknown	Captive Breeding	Seized Specimens
2014	Pakistan	China	Unknown	200	Unknown	Law Enforcement (repatriation)	Seized Specimens

Table 2: CITES trade database records involving seized specimens (CITES code 'I') between 2014 and 2016.

The annual number of Black Spotted Turtle seizures and the annual number of specimens seized have approximately tripled between 2013 and 2015. ***Photo credit: Serene Chng/TRAFFIC***

During the current study's research period, Black Spotted Turtles were seized in 24 different locations in seven countries/territories, all of which are on the Asian continent (**Table 3** and **Figure 3**). These findings correspond largely with those from the 2014 study, in which seizures were reported to have taken place in six different Asian countries/territories (excluding Singapore and mainland China, but including Taiwan) (Chng, 2014). The highest number of seizures (n=20) took place in India, accounting for a total of 3001 specimens. These seizures occurred across the country, but appeared to be particularly abundant in the southern and eastern regions. An incident in Kolkata in May 2014 involving 1000 specimens marks the largest seizure found in this study. Twelve incidents, accounting for a total of 1775 specimens, occurred in Hong Kong SAR, accounting for the second most Black Spotted Turtle seizures in the region (and globally). Several

seizures also took place in Thailand (n=6) and Pakistan (n=6). With averages of 332.5 and 265.5 specimens per seizure respectively, these two countries are among the three countries with the highest specimens per seizure ratio, the other one being Bangladesh (average of 399 specimens per seizure).

Country/territory	**Number of Seizures (percentage of total)**	**Number of Specimens (percentage of total)**	**Number of Specimens per Seizure (median)**
India	20 (38%)	3001 (29%)	92
Hong Kong SAR	12 (23%)	1775 (17%)	32
Thailand	6 (11%)	1995 (19%)	227.5
Pakistan	6 (11%)	1593 (15%)	181
China	4 (7%)	364 (4%)	61.5
Bangladesh	3 (6%)	1197 (12%)	510
Singapore	2 (4%)	396 (4%)	198
Total	**53**	**10 321**	**100**

Table 3: Number of seizures and specimens per country between April 2014 and March 2016.

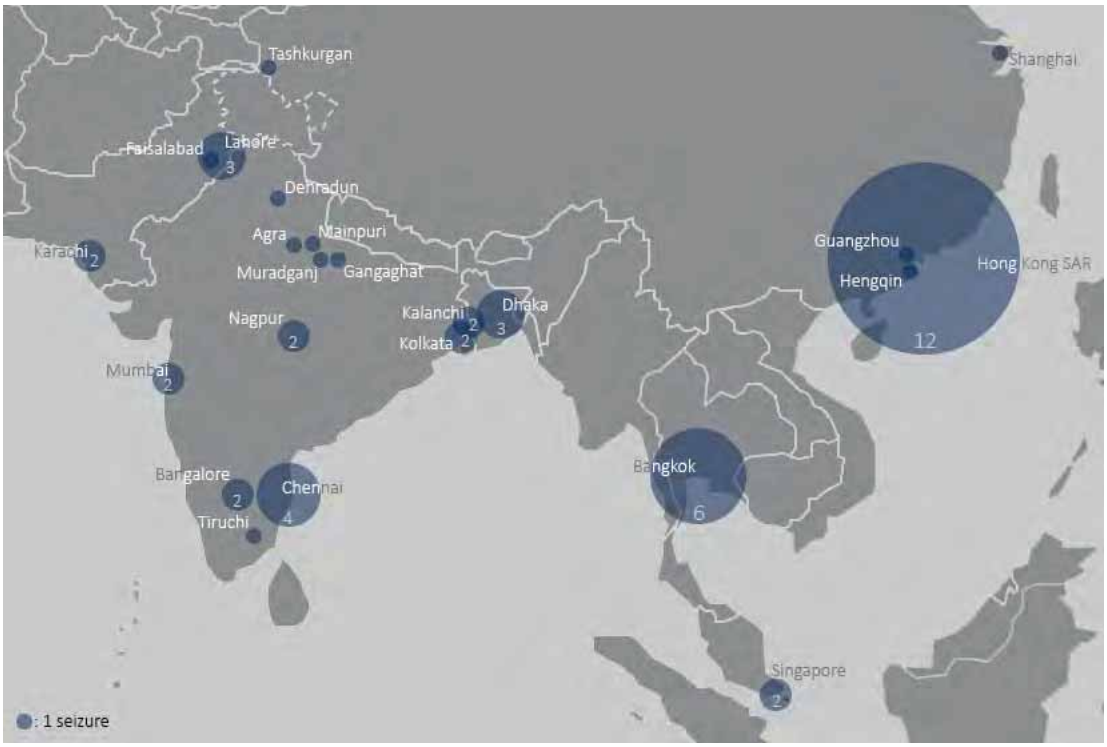

Figure 3: Number of seizures per location. The size of the circles indicates the number of seizures at each location.

All recorded seizures involved shipments of live animals, although in a number of cases large numbers of specimens were found to have died in transport. In one quarter of the incidents, Black Spotted Turtles were found alongside other smuggled wildlife, mostly involving other Asian freshwater turtle and tortoise species such as Indian Star Tortoises *Geochelone elegans* (CITES Appendix II), Indian Tent Turtles *Pangshura tentoria* (CITES Appendix II) and Indian Roofed Turtles *Pangshura tecta* (CITES Appendix I) (**Annex II**). The preferred mode of transportation for smuggling turtles seemed to be by air (commercial flights), with most seizures taking place at international airports (n=25). In nine cases, shipments were transported over land, and sea transport was used in only two cases (although short-distance sea transport is known to frequently take place between Hong Kong SAR and mainland China (Ades *in litt.*, 2017)).

Due to incomplete seizure records, complete and detailed trade routes could not be mapped out for all seized shipments. Even in cases where trade routes were specified, it could not be confidently established whether the reported data were exhaustive and/or accurate. As a result, the indicated

trade routes in this report may be incomplete. The available data suggest that most shipments of the Black Spotted Turtle are exported from South Asian source countries to Southeast Asian countries, from which they are often transported to East Asian end markets (**Figure 4**).

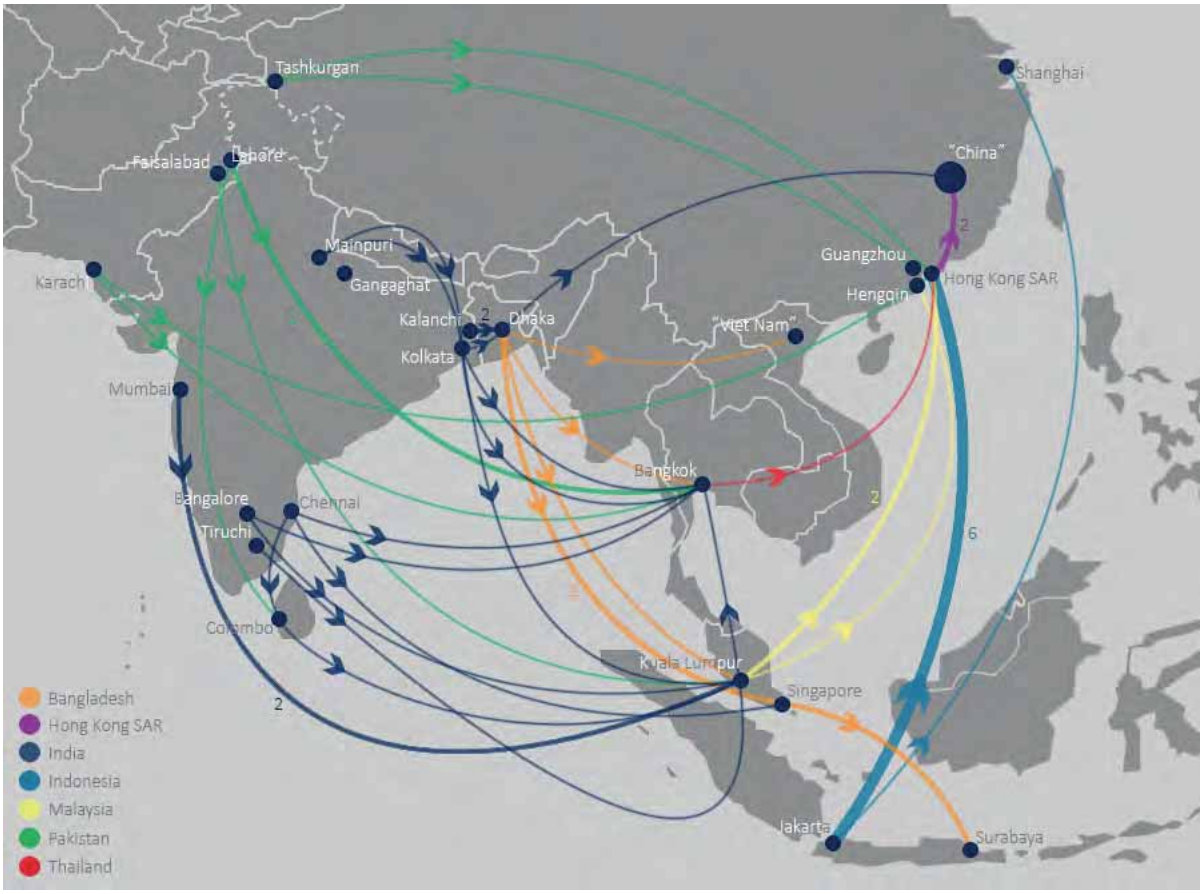

Figure 4: Indicated international Black Spotted Turtle trade routes. Colours are indicative of the first known recorded country in the trade chain. The thickness of the lines indicates the number of records per trade route (with the thinnest lines representing single records).

Suspects were apprehended by local authorities in 55% (n=29) of the recorded seizure incidents. In three cases, shipments were found in an abandoned state and in another five cases suspects reportedly managed to flee the scene. Information concerning arrests was not available for the other cases. At least twelve arrests involved Indian nationals, while in eleven cases the nationality of the suspects was not explicitly mentioned (in at least 8 of these unspecified cases, the suspects were likely to be Indian nationals). Pakistani suspects were encountered in four cases. The

remaining two incidents involved Russian and Thai suspects respectively. Across the arrests, a total of 55 suspects was recorded, 32 of which were arrested in India. Only 20% of the reported arrests resulted in confirmed convictions. In 23 cases (79% of the arrests) it was impossible to determine whether the arrest was followed by a prosecution and/or conviction due to incomplete data. Enforcement efforts appear to vary largely between the region's countries (Table 4). In India, arrest rates were found to be high, with 20 seizures resulting in 17 arrests. However, only one of these was reported to have led to a confirmed conviction. In Pakistan, the arrest/confirmed conviction ratio was found to be more favourable, with four arrests (out of six cases) leading to two confirmed convictions. In Hong Kong SAR, arrest rates were found to be remarkably low, with 12 seizures leading to no more than two arrests. In Singapore, both recorded seizures led to arrests and confirmed convictions.

Country/territory	Number of Seizures	Number of Arrests	Number of Arrested Suspects	Number of Confirmed Convictions	Penalties
India	20 (38%)	17 (59%)	32	1	Imprisonment (unspecified term)
Thailand	6 (11%)	3 (10%)	5	0	N.A.
Singapore	2 (4%)	2 (7%)	3	2	1. Imprisonment (19 months) 2. Imprisonment (15 months)
Pakistan	6 (11%)	4 (14%)	5	2	1. Fine (PKR200 000 / USD1870.91*) 2. Fine (PKR300 000 / USD2806.36*)
Hong Kong SAR	12 (22%)	2 (7%)	3	1	Fine (HKD180 000 / USD23 063.50*)
Bangladesh	3 (6%)	0 (0%)	N.A.	N.A.	N.A.
China	4 (8%)	1 (3%)	7	0	N.A.
Total	**53**	**29**	**55**	**6**	**N.A.**

Table 4: Arrests and convictions per country

Conversion rates of USD1 = 103.73 PKR and USD1 = HKD7.75 as on 1 January 2016 were used (https://www.oanda.com/currency/converter/).

DISCUSSION

The remarkable increase in Black Spotted Turtle seizures since April 2014 suggests that the demand for this species has continued to grow in scale. Several seizures, which have taken place after this study's research period (at least nine between April and December 2016, accounting for 2025 specimens (**Annex III**)), underscore this finding. Considering the species' classification as Vulnerable on the IUCN Red List and the uncertainties regarding its current population size, this persistent expansion of the illegal trade, despite its national and international protection, is a cause for serious concern.

South Asian Source Countries

India features as the most prominent source country in the Black Spotted Turtle trade chain, with a large number of seizures found to have taken place here (n=20) (and the country being named as a source country in two incidents occurring outside of India). The Indian freshwater turtle trade has been known to be going on for decades on both a national and international scale, with the latter historically involving trade flows to China (Compton, 2000). As one of India's largest cities, Chennai in South India appears to be an important collection and distribution point in the country's Black Spotted Turtle trade. Chennai has previously been identified as a major transit hub in the international Indian Star Tortoise trade (Shepherd *et al.*, 2004). The seizure data indicate that wild-caught Black Spotted Turtles are transported to Chennai, which is situated outside the species natural range, by car or train and subsequently smuggled to other parts of the region. Similar logistics are found in Pakistan, where Karachi functions as an important collection and distribution point in the country's freshwater turtle trade. Dealers here have been known to employ local poachers and fishermen and sometimes provide them with vehicles and other material (Noureen, 2009). More recent confiscations at Lahore airport may indicate that enforcement actions at Karachi have prompted displacement to other ports (Noureen *in litt.*, 2016).

Other trade hotspots are found along the India-Bangladesh border. Bangladesh has been known to be a major regional transhipment hub (Bhupathy *et al.*, 2000; Compton, 2000) and has been described as at the centre of the turtle trade on the Indian subcontinent (Bhupathy *et al.*, 2000). Its capital Dhaka is situated in the species[1] natural range and is in closer proximity to Indian Black

Spotted Turtle trade hotspots than most large Indian cities and may therefore function as a regional collection centre in the Black Spotted Turtle trade. In the 2014 study, four Black Spotted Turtle seizures involving Dhaka were reported. In the current study Dhaka was found to have been part of the intended trade route seven times. Several Indian seizures (n=4) occurred near the Bangladeshi border and involved shipments on the way to Bangladesh. The largest of these seizures concerns the abovementioned seizure of 1000 Black Spotted Turtles in Kolkata in May 2014. The turtles were said to have been transported from states further south (Odisha and Andhra Pradesh) before being collected in Kolkata and subsequently shipped to Bangladesh and China. At least part of the shipments from India to Bangladesh are smuggled by overland routes, as illustrated by two seizures near Kalanchi (a town bordering Bangladesh), involving smugglers attempting to enter Bangladesh on foot.

The status of Black Spotted Turtle populations in India is not well known (Ahmed and Das, 2010; Das and Bhupathy, 2010; Baruah *et al.*, 2011). The species is considered to have limited distribution, but is thought to be common in Kaziranga National Park and Orang National Park in Northeast India (Ahmed and Das, 2010). Hunting for trade, in combination with habitat loss, has already led to severe freshwater turtle population declines in this area (Ahmed and Das, 2010; Das and Bhupathy, 2010; Baruah *et al.*, 2011). Nationally, India's freshwater turtle trade is reaching alarming levels, with an average of 100 specimens (of any species) seized per day (Pandey and Sengupta, 2017). A vast majority of these turtles are heading to other Asian destinations. These trade levels do not appear to abate and now increasingly involve Black Spotted Turtles, supposedly putting a serious strain on the species' Indian populations. In Bangladesh, freshwater turtle populations are facing similar pressure as a result of the intensification of the turtle trade since the early seventies (Rashid and Munjurul Hannan Khan, 2000). The Black Spotted Turtle is among the most intensively hunted species here, which has resulted in abrupt population declines over the past 20 years (Rashid and Munjurul Hannan Khan, 2000) and recent local extirpations (Das and Bhupathy, 2010). Little is known about the status of Black Spotted Turtle populations in Pakistan. The species has been described as being relatively abundant (in comparison to other sympatric freshwater turtles) in Punjab Province's five major rivers (Akbar *et al.*, 2006; Das and Bhupathy, 2010). Hunting pressures are nonetheless likely to have similar effects on Pakistan's Black Spotted Turtle populations as it does on those in neighbouring countries.

Just as in the 2014 study, no seizure records were found in connection to Nepal, suggesting that the Black Spotted Turtle trade here is less extensive than in other source countries, or that effective enforcement and recording efforts are lacking here. However, as Asian demand continues to increase, populations are bound to dwindle in other range areas. Therefore, in the future, Black Spotted Turtles will likely be sourced from other areas, potentially including Nepal.

Southeast Asian Transit and Destination Countries

Southeast Asian countries appear to play an important role in the international Black Spotted Turtle trade. Between January 2009 and March 2016, Southeast Asian countries were indicated as part of the trade chain in at least 51 incidents (65%), involving a total of at least 8466 (68%) Black Spotted Turtles. They have been indicated as transit hubs for shipments destined for East Asian countries, but also as final destinations. Although trade chain data are often incomplete, Southeast Asian countries are indeed likely to function as both.

Indonesia, Malaysia and Thailand in particular, appear to be important countries in the international Black Spotted Turtle trade chain. During the research period, Indonesia was involved in seven incidents, five of which implicated the country as a transit hub to Hong Kong SAR (n=4) and Shanghai (mainland China) (n=1). Besides a total of 543 Black Spotted Turtles, these seizures involved large numbers of other species of high-value freshwater turtles, indicating Indonesia's important role as a transit country in the illegal international chelonian trade. Yet the country appears to have a local Black Spotted Turtle trade as well. During the research period, Indonesia was named as a destination country in two incidents, both involving sizeable shipments (n=190 and n=206 specimens respectively) from Dhaka, Bangladesh, transported through (and seized in) Singapore. During the previous study, one recorded incident involved the arrest of an Indonesian Black Spotted Turtle smuggler in Bangkok (Thailand) (Chng, 2014). Market observations confirm Indonesia's potential role as a destination country, with 43 specimens recorded during routine surveys of Jakarta's reptile markets between September 2015 and September 2016, and 37 specimens found available online between December 2015 and December 2016 (TRAFFIC, unpub data).

Although no seizures were made in Malaysia during the research period, the country was implicated in as many as 11 incidents involving a total of 1407 Black Spotted Turtles. Outside the research period, at least two Black Spotted Turtle seizures occurred here. One involved the seizure of 13 specimens en route to Taiwan in May 2016. The other incident occurred in Port Klang in June of the same year and involved a large shipment of 508 specimens coming from Pakistan via Myanmar, with no clear final destination indicated. Additionally, two undated Black Spotted Turtle shipments from Bangladesh have reportedly taken place between 2014 and 2016 (involving nine specimens) and 2015 and 2016 (involving 133 specimens) respectively. These records, and other recent incidents involving other species of high-value freshwater turtles, hint at Malaysia's active role in the international chelonian trade. The country's role as a transit hub is confirmed in at least four records during the research period, in which Hong Kong SAR, mainland China and Thailand were indicated as end destinations. It remains unclear how many of the seizure records indicating Malaysia as a destination country (n=7) concerned shipments that were actually destined for the country's local trade or supplying traders and redistributors based in the country. Market observations suggest that Black Spotted Turtle availability, in both physical pet stores and on the internet, is low in Malaysia. In surveys of Kuala Lumpur's pet shops between 2004 and 2006 and in 2014, no Black Spotted Turtles were recorded. Only three individuals were found for sale on Malaysian websites between 2005 and 2015 (Bouhuys and van Scherpenzeel, 2015). However, it must be noted that the seizure data indicate that the international Black Spotted Turtle trade has only really gained momentum from 2013 onwards, which could possibly explain the absence of Black Spotted Turtles in the older surveys. The recent arrest of an important Singapore-based Indian turtle dealer, also described as the 'kingpin' of India's illegal turtle trade, revealed trade links between India and Malaysia and Thailand (amongst other countries) (Santoshi, 2017).

Black Spotted Turtles seized in Thailand on the 8th of November 2013. ***Photo credit: P.Tansom/TRAFFIC***

During the research period, Thailand was found to be part of the intended trade route in at least 12 seizure records. Thailand's prominent role in the Black Spotted Turtle trade was also highlighted in the 2014 study, in which it was found that no less than 45% of the encountered seizures, involving at least 1797 specimens, had taken place at Thailand's main airports between 2008 and 2014 (Chng, 2014). Between January 2009 and March 2016 then, a total of at least 30 Black Spotted Turtle seizures, involving at least 6057 specimens, have reportedly taken place in Thailand. Such seizures have continued beyond the research period. The seizure data indicate Thailand as an important transit country, yet in at least 17 of the above mentioned 30 cases, Thailand was mentioned as a destination country or as the last known point in the trade route. Again, it remains unclear how much of these shipments were indeed destined for the local Thai market. Like in Malaysia, Thailand's local trade numbers were found to be relatively low, with no more than 55 individuals recorded during seven market surveys in Bangkok between 2004 and

2013 (Nijman and Shepherd, 2007; 2015; Nijman *et al.*, 2012) and none recorded openly in trade between 2013 and 2016 (Chng, unpub. data). Further research into Indonesia, Malaysia and Thailand's local Black Spotted Turtle trade is needed in order to determine the importance of their roles as destination countries.

The current study found no evidence of Myanmar's role as a transit country in the international Black Spotted Turtle trade. However, no official seizure records were received from Myanmar's CITES Management Authority, making it unclear whether any seizures have taken place there during the research period. Due to its strategic location, Myanmar should be considered a potentially attractive link in any illegal international wildlife trade chain, particularly between South Asia and East Asia. Previous research has indeed identified the country as part of an overland trade route between India and China (Banks and Newman, 2004; Oswell, 2010; Chng, 2014). The abovementioned Black Spotted Turtle seizure in Malaysia in June 2016, which implicates Myanmar as a transit point, indicates that the country is also involved in trade routes to and through other Southeast Asian countries.

East Asian Destination Countries

Mainland China and Hong Kong SAR were collectively implicated in at least 17 seizures during the research period, involving at least 3139 specimens. Since 2009, they were implicated in at least 23 incidents, involving 3905 specimens, implying their importance as destinations in the Black Spotted Turtle trade. Mainland China and Hong Kong SAR both have long histories of turtle consumption for both food and traditional medicine (Ades *et al.*, 2000; Lau and Haito, 2000; Lau *et al.*, 2000). The latter is considered to be the largest consumer of turtles in the world (Cheung and Dudgeon, 2006). As China's wild turtle populations have severely declined due to over-exploitation (Lau and Haito, 2000), supply is now sought from abroad. Chinese economic reforms, which have opened the country's borders and increased national wealth, have exacerbated the influx of Asian turtle species into the country (Lao and Haito, 2000). Nearly all hard-shelled turtles on China's food markets are reportedly wild-caught and imported from other Asian countries (Ades *et al.*, 2000). Observations of Black Spotted Turtles in (South) China's food markets have occurred throughout recent history (Compton, 2000; Lau and Shi, 2000; Das and Bhupathy, 2010),

and suggest that a small part of the demand for the species here is driven by the meat trade. Importantly however, most demand from outside the species' range is generated by the Asian pet trade (Ades *in litt.*, 2017). Observations of Black Spotted Turtles in pet markets in Hong Kong SAR over the past decade confirm this (Cheung and Dudgeon, 2006; Chng, 2014; Ades *in litt.*, 2017).

Besides functioning as a retail zone, Hong Kong SAR is likely to serve as a trade gateway to mainland China (Ades *et al.*, 2000). According to an anonymous source, some freshwater turtle species are traded through Hong Kong SAR and subsequently transported to captive breeding facilities in mainland China that cater to the domestic market. Imported shipments are typically transported by van or lorry to the northern shores of Hong Kong SAR. Shipments are then taken to Shenzhen in mainland China with the use of speedboats so as to avoid border control on overland routes (Ades *in litt.*, 2017). Hong Kong SAR's role as a transhipment hub in the Black Spotted Turtle trade was confirmed in at least four seizure records, in which mainland China was indicated as the intended final destination. It is unclear how many of the remaining 10 recorded Hong Kong SAR-bound shipments were ultimately destined for mainland China.

The illegal Black Spotted Turtle trade is largely driven by East Asian demand for exotic pets. ***Photo credit: Serene Chng/TRAFFIC***

Enforcement and Prosecution

The observed increase in Black Spotted Turtle seizure numbers since 2014 may also be a direct result of improved local enforcement and/or reporting efforts. However, as indicated by the data (Annex II), seizure rates vary among countries. This observation may partly be explained by the current study's data gaps resulting from the selectivity of received CITES Management Authority data, but also hints at differences in enforcement, prosecution and/or reporting efforts between the countries in the region. Conviction rates are generally low throughout the region, confirming the low risk/high gain character of the illegal wildlife trade in general, and the Black Spotted Turtle trade in particular. To put a halt to this trade, the risks of involvement in criminal activity will have to be raised. Singapore forms a case in point. Only two Black Spotted Turtle seizures were recorded here, both of which led to the arrest and sentencing of the suspects involved, to 15 and 16 months imprisonment respectively (Annex II). The low number of seizures suggests that strong enforcement may have a deterrent effect on wildlife criminals attempting to ship Black Spotted Turtles through the country, although future monitoring efforts will have to be undertaken in order to confirm this. It also suggests that thorough, stable and internationally coherent law enforcement across the region will be of high importance in efforts to combat the illegal Black Spotted Turtle trade.

As population sizes are currently unknown, the exact conservation impact of the illegal Black Spotted Turtle trade remains unclear. The fact that most specimens found in trade are (young) adults (Ades *in litt.*, 2017), suggests that wild populations have not completely crashed yet. However, the absence of hatchlings observed in trade also suggests that captive breeding programmes do not supply the Black Spotted Turtle trade in a significant way. The continuous harvesting of wild specimens is likely to seriously threaten this already endangered animal and may result in severe population declines, as already witnessed in parts of the species' range.

Continuous harvesting of wild specimens is likely to seriously threaten the Black Spotted Turtle. ***Photo credit: Serene Chng/TRAFFIC***

CONCLUSION AND RECOMMENDATIONS

The Black Spotted Turtle trade has continued to grow rapidly since its sudden rise in 2013. Recorded volumes of confiscated specimens have more than tripled between 2013 and 2015. These numbers are worrying, considering the species' current classification as Vulnerable on the IUCN Red List, recorded local population declines and the lack of knowledge concerning its current conservation status and wild ecology. In order to de-escalate the Black Spotted Turtle trade and secure this species' continued survival, TRAFFIC recommends the following:

Enforcement and Regulation

• Enforcement efforts must be improved across the Asian region. Intelligence-led investigations, among relevant enforcement agencies will prove crucial, not only to the disruption of Black Spotted Turtle trade players, but also to the collection of accurate data for trade analysis. Enforcement efforts should particularly be enhanced and/or sustained at the identified trade hotspots (Karachi in Pakistan, Chennai in India, various places along the India-Bangladesh border including Kolkata and Kalanchi, the airports of Dhaka (Bangladesh) and Bangkok (Thailand), Malaysian transport hubs including Kuala Lumpur International Airport and Port Klang, and the airport, port and markets in Hong Kong SAR).

• Reporting efforts should be improved on both national and international levels. On a national level, reporting between local (or regional) and national enforcement authorities will facilitate coordinated enforcement efforts. On an international level, governments' reporting to CITES should be improved. Such improved reporting should also entail adherence to the new annual illegal trade reporting requirements as set out in CITES Notification 007 (February 2016), which include the provision of comprehensive accounts of actions, outcomes, seizure and prosecution details.

• Prosecution efforts should be improved. Such improvement can be realised by raising the profile of the freshwater turtle trade in general, and the Black Spotted Turtle trade in particular, among enforcement agencies and judiciaries. Intelligence-led investigations should be used to ensure strong prosecution, involving high penalties, against traffickers to deter future offenders.

• International cooperation between relevant national enforcement agencies and authorities must be improved to better monitor and regulate the international trade and facilitate the repatriation of seized specimens.

• International cooperation between relevant national enforcement agencies and authorities should also be improved to engage in investigations that go beyond single smuggling cases and aim to

dismantle the international smuggling rings and organised crime networks that are behind the international Black Spotted Turtle trade.

Public Awareness

• Public awareness concerning the deteriorating effects of the freshwater turtle trade in general, and the Black Spotted Turtle trade in particular, should be increased. Awareness initiatives to reduce demand and to increase knowledge about the illegality of the trade in Black Spotted Turtle should be carried out among consumers in destination countries and among local communities and hunters in source countries.

Monitoring and Research

• Continued research into – and monitoring of – the Black Spotted Turtle trade should be conducted to improve our understanding of trade trends and dynamics. Research findings should also be used to support law enforcement interventions. Research efforts should include seizure analyses, market surveys and online trade monitoring in the identified destination countries/territories (China and Hong Kong SAR). They should also include studies into Southeast Asian countries' potential roles as destination countries (Indonesia, Malaysia and Thailand in particular).

• Further research into the status of wild Black Spotted Turtle populations – and the conservation impacts of the trade in this species – should be conducted. Such research should include studies of wild populations in range areas and DNA analyses of wild and seized individuals to obtain known provenance information which will assist repatriation efforts.

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Annex I: Seizure records January 2008 – March 2014*

MODE OF TRANSPORT	YEAR	DATE (D/M/Y)	LOCATION (city)	LOCATION (country)	TRADE TYPE	INDICATED TRADE ROUTE	NUMBER OF SPECIMENS	ADDITIONAL CONTRABAND	SUSPECT(S) APPREHENDED	PROSECUTION
Car	2009	22/1/2009	Allahabad	India	unknown	N.A.	30	2970 turtles including Indian Flapshell Turtles *Lissemys punctata* and Indian Softshell Turtles *Nilssonia gangetica*	yes	unknown
Airplane	2009	20/7/2009	Taiwan	Taiwan	international	Hong Kong SAR - Taiwan	7	unspecified number of different unidentified turtle species	yes	7 months imprisonment, 3 years probation and 80 hours of labor service
N.A.	2010	17/4/2010	New Taipei City	Taiwan	N.A.	N.A.	2	4 Radiated Tortoises *Astrochelys radiata* and 1 Rhinoceros Iguana *Cyclura cornuta*	unknown	N.A.
Airplane	2011	1/6/2011	Bangkok	Thailand	international	Bangladesh - Thailand	unknown	35 Indian Star Tortoises *Geochelone elegans,* 142 Spiny Terrapins *Heosemys spinosa*, 7 Gharials *Gavialis gangeticus* and 259 unspecified freshwater turtle species, including Black Spotted Turtles	yes	unknown
Unknown	2011	17/8/2011	Hardiwar	India	unknown	N.A.	14	no	unknown	N.A.
Airplane	2012	13/2/2012	Bangkok	Thailand	international	Thailand - Indonesia	5	unspecified number of different unidentified turtle species	yes	unknown
Unknown	2012	18/4/2012	Dhaka	Bangladesh	international	India - Bangladesh - Thailand	unknown	unspecified number of different unidentified turtle species	yes	unknown
Airplane	2012	29/10/2012	Mumbai	India	unknown	N.A.	37	no	unknown	N.A.
Airplane	2013	15/3/2013	Bangkok	Thailand	unknown	N.A.	10	300 Indian Star Tortoises *Geochelone elegans*	no	N.A.
Unknown	2013	25/4/2013	Islamabad	Pakistan	international	Pakistan - Thailand	320	no	unknown	N.A.
Unknown	2013	20/6/2013	Cuddalore	India	unknown	N.A.	1	no	unknown	N.A.
Boat	**2013**	**16/9/2013**	**Zhuhai**	**China**	**international**	**Macau SAR - Hong Kong SAR**	**61**	**25 Japanese Pond Turtles *Mauremys japonica***	**unknown**	**N.A.**
Unknown	2013	20/9/2013	North 24 Parganas	India	unknown	N.A.	72	no	unknown	N.A.
Airplane	2013	22/9/2013	Bangkok	Thailand	international	unknown	220	no	no	N.A.
Unknown	2013	1/10/2013	Hong Kong SAR	Hong Kong SAR	international	Thailand - Hong Kong SAR	335	3 unidentified turtles	yes	3 months imprisonment
Airplane	2013	3/11/2013	Bangkok	Thailand	international	Bangladesh - Thailand	72	unspecified number of 8 different unidentified turtle species	no	N.A.
Airplane	2013	5/11/2013	Bangkok	Thailand	international	Bangladesh - Thailand	52	423 Indian Star Tortoises *Geochelone elegans*	no	N.A.
Airplane	2013	8/11/2013	Bangkok	Thailand	international	Pakistan - Thailand	470	no	yes	unknown

Car	2013	18/12/2013	Sasaram	India	international	India - Myanmar	unknown	unspecified number of Three-keeled Land Tortoises *Melanochelys tricarinata*	yes	unknown
Unknown	**2014**	**5/1/2014**	**Hong Kong SAR**	**Hong Kong SAR**	**international**	**Thailand - Hong Kong SAR**	**94**	**no**	**unknown**	**N.A.**
Unknown	**2014**	**5/1/2014**	**Hong Kong SAR**	**Hong Kong SAR**	**international**	**Thailand - Hong Kong SAR**	**51**	**no**	**unknown**	**N.A.**
Unknown	2014	24/01/2014	Mae Khong	Thailand	international	Thailand - Lao PDR	30	1476 unidentified snakes, tortoises and freshwater turtles	yes	unknown
Airplane	2014	31/1/2014	Bangkok	Thailand	international	India - Thailand	65	440 Indian Star Tortoises *Geochelone elegans*	no	N.A.
Airplane	**2014**	**1/3/2014**	**Bangkok**	**Thailand**	**international**	**India - Bangkok**	**5**	**405 Indian Star Tortoises *Geochelone elegans***	**unknown**	**N.A.**
Car	2014	1/3/2014	Bihar	India	international	India - Myanmar	unknown	no	yes	unknown
Airplane	2014	12/3/2014	Bangkok	Thailand	international	India - Thailand – Macau SAR - Hong Kong SAR	218	54 Indian Narrow-headed Sofshell Turtles *Chitra indica*	unknown	N.A.

*** Number Additional records found during the current study are shown in bold.**

Annex II: Seizure records April 2014 – March 2016

MODE OF TRANSPORT	YEAR	DATE (D/M/Y)	LOCATION (city)	LOCATION (country)	TRADE TYPE	INDICATED TRADE ROUTE	NUMBER OF SPECIMENS	ADDITIONAL CONTRABAND	SUSPECT(S) APPREHENDED	PROSECUTION
Airplane	2014	15/12/2014	Dhaka	Bangladesh	unknown	N.A.	510	no	no	N.A.
Car	2014	15/6/2014	Taxkorgan	China	International	Pakistan - China and Hong Kong SAR	229	no	yes	unknown
Airplane	2014	29/8/2014	Hong Kong SAR	Hong Kong SAR	International	Indonesia - Hong Kong SAR	358	266 Indian Roofed Turtles *Pangshura tecta*	yes	HKD 180 000 fine
Bus	2014	5/4/2014	Dehradun	India	local	N.A.	2	33 Indian Tent Turtles *Pangshura tentoria*	yes	unknown
Car	2014	14/5/2014	Muradganj	India	unknown	N.A.	158	no	no	N.A.
N.A.	2014	24/5/2014	Kolkata	India	International	India - Bangladesh and China	1000	no	yes	unknown
Airplane	2014	1/8/2014	Chennai	India	International	India - Thailand	88	no	yes	unknown
Airplane	2014	20/9/2014	Karachi	Pakistan	International	Pakistan - Thailand	218	no	yes	PKR 200 000 fine
Airplane	2014	20/12/2014	Lahore	Pakistan	International	Pakistan - Thailand	640	no	yes	unknown
Airplane	2014	4/5/2014	Bangkok	Thailand	International	unknown	225	no	unknown	N.A.
Airplane	2014	14/5/2014	Bangkok	Thailand	International	India - Thailand	230	no	no	N.A.
Airplane	2014	21/5/2014	Bangkok	Thailand	International	unknown	32	no	yes	unknown
Airplane	2014	5/11/2014	Bangkok	Thailand	International	Bangladesh - Thailand	669	no	no	N.A.
Airplane	2015	29/5/2015	Dhaka	Bangladesh	International	Bangladesh - Malaysia	130	no	no	N.A.
Airplane	2015	12/7/2015	Dhaka	Bangladesh	International	Bangladesh - Vietnam	557	no	no	N.A.
Airplane	2015	16/7/2015	Guangzhou	China	International	unknown	12	247 Indian roofed Turtles	unknown	N.A.
unknown	2015	19/11/2015	Hengqin	China	International	Malaysia - China	70	18000 aquarium fish + 40 unspecifies stingrays	unknown	N.A.
Boat	2015	19/11/2015	Shanghai	China	International	Indonesia - China	53	1290 Southeast Asian Box Turtles *Cuora amboinensis* + 1002 Pig-nosed Turtles *Carettochelys insculpta* + 160 Red-bellied Short-necked Turtles *Emydura subglobosa* + 30 Keeled Box Turtles *Cuora mouhotii*	unknown	N.A.
Boat	2015	27/2/2015	Hong Kong SAR	Hong Kong SAR	International	Pakistan - Hong Kong SAR- China	751	5500 kg salmon	yes	unknown
unknown	2015	8/7/2015	Hong Kong SAR	Hong Kong SAR	International	Indonesia - Hong Kong SAR	86	no	unknown	N.A.

unknown	2015	22/8/2015	Hong Kong SAR	Hong Kong SAR	International	Indonesia - Hong Kong SAR	23	no	unknown	N.A.
unknown	2015	20/9/2015	Hong Kong SAR	Hong Kong SAR	International	Hong Kong SAR - China	259	no	unknown	N.A.
unknown	2015	26/9/2015	Hong Kong SAR	Hong Kong SAR	International	Indonesia - Hong Kong SAR	18	no	unknown	N.A.
Airplane	2015	1/10/2015	Hong Kong SAR	Hong Kong SAR	International	Malaysia - Hong Kong SAR	167	no	unknown	N.A.
Airplane	2015	8/10/2015	Hong Kong SAR	Hong Kong SAR	International	Indonesia - Hong Kong SAR	23	no	unknown	N.A.
By foot	2015	29/1/2015	Kalanchi	India	International	India - Bangladesh	185	no	no	N.A.
By foot	2015	18/3/2015	Kalanchi	India	International	India - Bangladesh	97	no	no	N.A.
Airplane	2015	24/04/2015	Mumbai	India	International	India - Pakistan - Malaysia	161	no	yes	unknown
Airplane	2015	24/3/2015	Tirichi	India	International	India - Malaysia - Thailand	492	no	yes	unknown
Airplane	2015	11/4/2015	Mumbai	India	International	India - Malaysia	45	138 unspecified turtles	yes	unknown
Train	2015	1/6/2015	Nagpur	India	unknown	N.A.	96	no	yes	unknown
Airplane	2015	29/6/2015	Bangalore	India	International	India - Thailand	72	no	yes	imprisonment (unspecified term)
Train	2015	1/8/2015	Chennai	India	unknown	N.A.	15	no	yes	unknown
Airplane	2015	6/8/2015	Chennai	India	International	India - Sri Lanka - Malaysia	138	no	yes	unknown
N.A.	2015	6/8/2015	Kolkata	India	International	unknown	4	44 Indian Tent Turtles + 27 Indian Star Tortoises	yes	unknown
Train	2015	12/8/2015	Nagpur	India	online	N.A.	5	15 Indian Star Tortoises + 13 unspecified turtles	yes	unknown
Airplane	2015	14/8/2015	Bangalore	India	International	India - Malaysia	20	59 Indian Star Tortoises	yes	unknown
N.A.	2015	22/10/2015	Ganghagat	India	International	India - 'East Asia'	290	no	yes	unknown
N.A.	2015	19/12/2015	Mainpuri	India	International	India - Thailand and Malaysia	100	24 unspecified turtles	yes	unknown
Airplane	2015	21/4/2015	Lahore	Pakistan	International	Pakistan - Thailand	504	no	yes	PKR 300 000 fine
N.A.	2015	7/11/2015	Karachi	Pakistan	unknown	N.A.	42	no	no	N.A.
Airplane	2015	7/1/2015	Singapore	Singapore	International	Bangladesh - Singapore - Indonesia	190	no	yes	16 months imprisonment for attempted smuggling + 3 months imprisonment for animal cruelty

Airplane	2015	9/7/2015	Singapore	Singapore	International	Bangladesh - Singapore - Indonesia	206	no	yes	15 months imprisonment for attempted smuggling
Airplane	2015	7/11/2015	Bangkok	Thailand	International	unknown	689	no	yes	unknown
unknown	2016	7/1/2016	Hong Kong SAR	Hong Kong SAR	International	Thailand - Hong Kong SAR	6	no	unknown	N.A.
unknown	2016	21/1/2016	Hong Kong SAR	Hong Kong SAR	International	Hong Kong SAR - China	20	no	unknown	N.A.
unknown	2016	11/2/2016	Hong Kong SAR	Hong Kong SAR	International	Malaysia - Hong Kong SAR	39	no	unknown	N.A.
unknown	2016	21/3/2016	Hong Kong SAR	Hong Kong SAR	International	Indonesia - Hong Kong SAR	25	no	unknown	N.A.
N.A.	2016	15/3/2016	Agra	India	unknown	N.A.	1	51 specimens belonging to 4 different species (Indian Tent Turtle, Indian Softshell Turtle *Nilssonia gangetica,* Indian Flapshell Turtle *Lissemys punctata*)	yes	unknown
Car	2016	19/3/2016	Chennai	India	International	India - Singapore	32	no	yes	unknown
Airplane	2016	Jan-16	Lahore	Pakistan	International	India - Sri Lanka	144	no	unknown	N.A.
Airplane	2016	8/3/2016	Faisalabad	Pakistan	International	Pakistan - United Arab Emirates - Malaysia	45	no	yes	unknown
Airplane	2016	29/2/2016	Bangkok	Thailand	International	unknown	150	154 Indian Star Tortoises	yes	unknown

Annex III: Seizure records from April 2016 onwards*

MODE OF TRANSPORT	YEAR	DATE (D/M/Y)	LOCATION (city)	LOCATION (country)	TRADE TYPE	INDICATED TRADE ROUTE	NUMBER OF SPECIMENS	ADDITIONAL CONTRABAND	SUSPECT(S) APPREHENDED	PROSECUTION
Airplane	2014 - 2016	?	Kuala Lumpur	Malaysia	international	Bangladesh - Malaysia	9	no	unknown	N.A.
Airplane	2015 - 2016	?	Kuala Lumpur	Malaysia	international	Bangladesh - Malaysia	133	no	unknown	N.A.
Boat	2016	7/4/2016	Karachi	Pakistan	unknown	N.A.	69	no	unknown	N.A.
Car	2016	28/4/2016	Karachi	Pakistan	international	Pakistan - Malaysia	170	no	unknown	N.A.
Airplane	2016	4/5/2016	Kolkata	India	international	India - Thailand	254	no	no	N.A.
Airplane	2016	6/5/2016	Kuala Lumpur	Malaysia	international	Malaysia - Taiwan	13	no	unknown	N.A.
Airplane	2016	1/6/2016	Port Klang	Malaysia	international	Pakistan - Myanmar - Malaysia	508	no	unknown	N.A.

N.A.	2016	16/6/2016	Kathmandu	Nepal	international	India - Nepal - China and Viet Nam	109	162 birds of various species	yes	unknown
N.A.	2016	9/9/2016	Khayaban-e-Rahat	Pakistan	unknown	N.A.	760	No	Yes	unknown

*** This list is based on superficial media scanning and is likely to be incomplete.**

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

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