

**ESCALATING BLACK  
SPOTTED TURTLE  
*GEOCLEMYS HAMILTONII*  
TRADE IN ASIA:**

**A STUDY OF SEIZURES**

Serene CL Chng

A TRAFFIC REPORT



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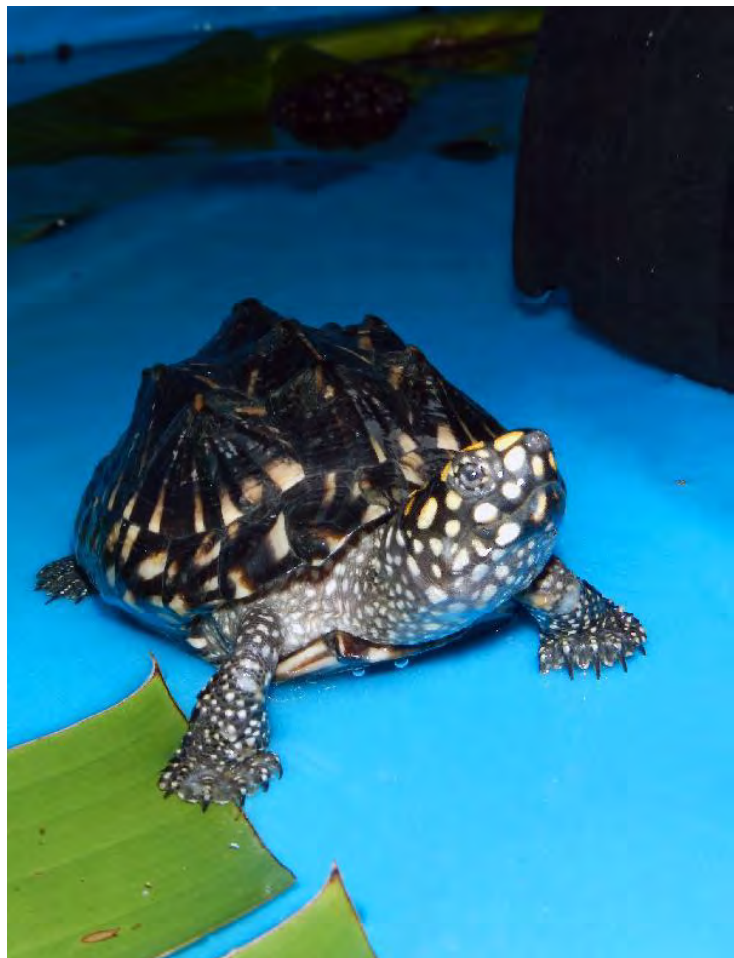
**Front cover:** Taped-up Black Spotted Turtles  
seized from a smuggling attempt  
Credit: Panjit Tansom/TRAFFIC

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A Black Spotted Turtle rescued from a seizure in Hong Kong

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## EXECUTIVE SUMMARY

Illegal international trade of the Black Spotted Turtle *Geoclemys hamiltonii* has escalated in the past two years, with more than 1960 animals seized in 22 incidents between January 2008 and March 2014. Of this, at least 1865 were seized between January 2013 and March 2014. Seizure data indicate that shipments of the turtles from Bangladesh, India and Pakistan transit through South-east Asian hubs such as Bangkok, Thailand and are destined for East Asia, in particular Hong Kong. International smuggling occurs predominantly by passengers using commercial airlines concealing animals in their baggage. Many seizures commonly include other species in popular demand from the pet trade, suggesting that the increase in Black Spotted Turtle smuggling could be part of this overall pattern of demand. Although most of the seizures resulted in arrests, few successful prosecutions of smugglers have been reported.

Efforts supporting enforcement and prosecution are recommended in the following areas:

Regional cooperation across the eight countries of the South Asian Wildlife Enforcement Network (SAWEN) is recommended to raise awareness of this issue and address poaching and illegal export of Black Spotted Turtles, with specific priority in Bangladesh, India, Nepal and Pakistan.

Formal Memorandums of Understanding (MOUs) are strongly encouraged between governments of countries and territories along the trade route – Bangladesh, India, Pakistan, Thailand, Hong Kong, Taiwan – to improve cross-border enforcement. Regional platforms of SAWEN, the Association of Southeast Asian Nations Wildlife Enforcement Network (ASEAN-WEN) and INTERPOL should be utilized to catalyse and co-ordinate cross-border efforts to break down criminal networks.

The Black Spotted Turtle can be readily identified due to its unique markings. Customs officials and police officers can refer to identification guides for confirmation (such as the Species Identification Sheets available in different languages at <http://www.asean-wen.org/index.php/factsheets/category/4-species-id>). Greater vigilance at known gateways especially international airports in Dhaka, Bangkok and Hong Kong is required.

Any sale of this species outside range States violates CITES and perpetrators need to be punished accordingly by national laws. It is also recommended that the CITES Secretariat closely monitor and follow up with Parties that repeatedly fail to address illegal trade, in collaboration with INTERPOL and the World Customs Organization.

Improved prosecution procedures and stronger penalties by legal and prosecution systems are required as effective deterrents. Case preparation and securing of evidence, as well as the awareness of the

judiciary and maximising application of existing penalties under the legislation are both required for this. In addition to arresting and prosecuting smugglers, full investigations into the intended recipients of the shipments need to be carried out in concert by Customs, police and CITES Management Authority officials to stop successfully the trans-national organized crime networks involved in wildlife smuggling operations at national and sub-national levels.

Improved reporting of seizures by relevant agencies will greatly enhance the value of law enforcement actions. Media coverage of seizures not only raises public awareness of the issue but may also deter potential smugglers and improve the morale of law enforcement staff. Furthermore, timely and detailed reporting to CITES Management Authorities and the CITES Secretariat is recommended to provide a more complete data set to the international conservation community that is crucial for more accurate analyses.

CITES Management Authorities of range States and jurisdictions where seizures have taken place should collaborate on easing procedures for repatriation to range States to enable the return of confiscated animals to wild populations from which they were originally taken from following IUCN species reintroduction guidelines.

As the Internet is an increasingly dominant market place for illicit wildlife trade, future monitoring of online trade should be undertaken and findings should be considered by CITES Parties.

Raising awareness about the issue both to targeted audiences such as amongst airlines and airport staff, and to the general public is recommended. Wildlife crime hotlines in each country should be publicised at trade hotspots such as airports so that members of the public can report any suspicious incidents to relevant authorities.

## INTRODUCTION

The illegal wildlife trade is one of the major conservation drivers threatening the survival of endangered species (Broad *et al.*, 2003, McNeely *et al.*, 2009; Nijman, 2010). Asia's rich diversity of freshwater turtles and tortoises is facing dire threat from illegal and unsustainable wildlife trade for meat, traditional medicine and as pets (Compton, 2000; Gong *et al.*, 2009; Lyons *et al.*, 2013), with millions traded annually in the region (van Dijk *et al.*, 2000).

A spate of recent significant seizures suggests that trade of the Black Spotted Turtle *Geoclemys hamiltonii* has escalated rapidly over the past two years and requires closer monitoring and enforcement action. It is listed as Vulnerable in the IUCN Red List (IUCN, 2013) and in Appendix I of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), which means all international commercial trade is illegal and in violation of the Convention. The Black Spotted Turtle is protected by national laws in each of its four range States: Bangladesh, India, Nepal and Pakistan (see Box 1, below).

### **Box 1: National legislation protecting the Black Spotted Turtle**

In addition to being listed in CITES Appendix I, the Black Spotted Turtle is protected within all range States by the following legislations:

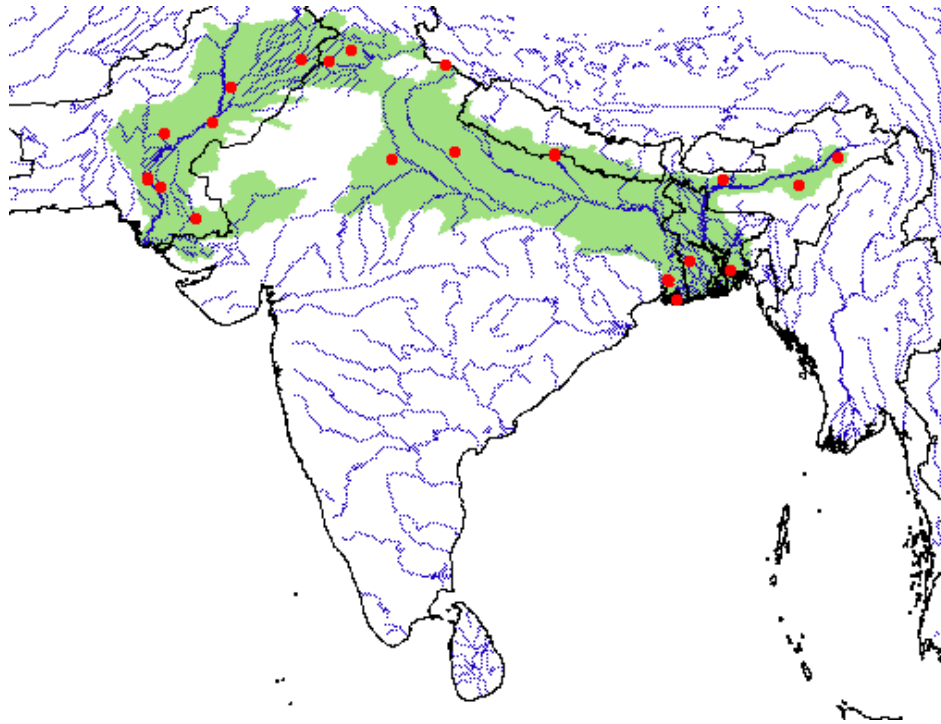
- India: Protected under Schedule I of the *Wildlife Protection Act* (1972). Violation of CITES is regarded as a violation of the *Import and Export Policy* and is dealt with under the *Customs Act*. Ratified CITES in 1976.
- Bangladesh: Protected under Schedule III of the *Wildlife (Preservation) Act* (1974). Ratified CITES in 1981.
- Nepal: All export of wildlife and wild animal parts totally banned since 1992. Violation of CITES is regarded as a violation of the *Export and Import (Control) Act* 1957 and the *Customs Act* 1962. Ratified CITES in 1975.
- Pakistan: Protected under Schedule III of the provincial *NWFP Wildlife Act* (1975) and *Punjab Wildlife Act* (1974). There is a federal ban on the export of all wild mammals, reptiles, and protected indigenous birds under the *Export Trade Control Order* (1981). Ratified CITES in 1976.

The Black Spotted Turtle is distributed from eastern Pakistan through northern India and Nepal to Bangladesh and north-east India (Figure 1). Each year, two clutches of 18-30 eggs are produced (Das and Bhupathy, 2010). Currently, there is no record of CITES-registered legal commercial breeding of this species in range States (CITES, 2014). In India, the breeding of any indigenous wildlife is illegal without a licence from the Central Zoo Authority (S. Ghosh *in litt.* 24 Dec 2013).



**Figure 1**

**The distribution of the Black Spotted Turtle, marked by the green shaded areas. Red points refer to locality records and the green shaded area is the projected distribution.**



Source: Das and Bhupathy, 2010, reproduced with permission.

The species has been reportedly sought after for use as pets and meat (Noureen, 2009; Das and Bhupathy, 2010). Prior trade of Black Spotted Turtles as pets was largely destined for collectors in the United States and Western Europe (Ceballos and Fitzgerald, 2004). More recently, however, the species has been recorded in pet markets in South-east Asia and East Asia. Dozens of Black Spotted Turtles were recorded during 2006-2009 market surveys at the Chatuchak Market in Bangkok, increasing from two in August 2006 to a high of 28 individuals in June 2009 (Nijman *et al.*, 2012). In a separate survey in Kuching, Malaysia, hatchlings were found on sale for approximately MYR 800 (USD 243, conversion rate MYR 1 = USD 0.3035) each (Das and Bhupathy, 2010). Significant numbers are also caught throughout its range for consumption of the meat (Noureen, 2009) which traditionally centred in eastern India but in recent years Black Spotted Turtles have been observed in urban meat markets in China (Das and Bhupathy, 2010).

This report is a response to the perceived sudden rise in Black Spotted Turtle trade and seeks to highlight the magnitude and dynamics of illegal trade in this species.

## METHODS

Information on the Black Spotted Turtle trade in Asia was compiled through a desktop study analysing reported seizures between 1 January 2008 and 30 March 2014. Data relating to seizures of specimens were collected from CITES Management Authorities, the seizures and prosecutions sections of the *TRAFFIC Bulletin* and news media. Details included date, location of seizure, items, purported origin, destination and references. Information pertaining to this species from CITES Management Authorities was received only from Taiwan<sup>1</sup> and Thailand. Additional information was obtained from the TRAFFIC offices in India and East Asia, and the Wildlife Protection Society of India. This analysis also included data from the UNEP-WCMC CITES trade database. Data collected from news media were compared against the UNEP-WCMC CITES trade database to point out where any inconsistencies or lack of comprehensive reporting may have occurred (Babu and Stengel, 2011; Foley *et al.*, 2011). It should be noted that the seizures data collected for this analysis are not exhaustive and many are from unofficially verified media reports. As such, they represent an unknown proportion of the total trade in Black Spotted Turtles.

## RESULTS

### Seizure details

More than 1960 animals were seized in 22 seizures between January 2008 and March 2014, with at least 1865 seized in 14 seizures from January 2013 onwards. A steep rise in the total number of animals seized is evident, as is a shift towards larger shipments of Black Spotted Turtles in 2013 and 2014 (Figure 2). Information received by TRAFFIC from anonymous sources also indicates a massive rise in the trade in this species, with demand reportedly escalating in Thailand.

All seizures in East and South-east Asia, excepting two, have taken place at international airports, suggesting that the preferred smuggling method is by air and that airports are important gateways for this type of trade. This appears to be the case for many species of tortoises and freshwater turtles in the illegal international trade (Chng, unpubl. data). Bangkok appears to be a significant hub for this species, with 1112 of all Black Spotted Turtles seized (57%) confiscated at Suvarnabhumi International Airport and Don Mueang International Airport, Bangkok in nine seizures during the period reviewed. In fact, a total of 594 Black Spotted Turtles were confiscated there in three seizures alone within a week in early November 2013 (Table 1). The *modus operandi* for most airport cases

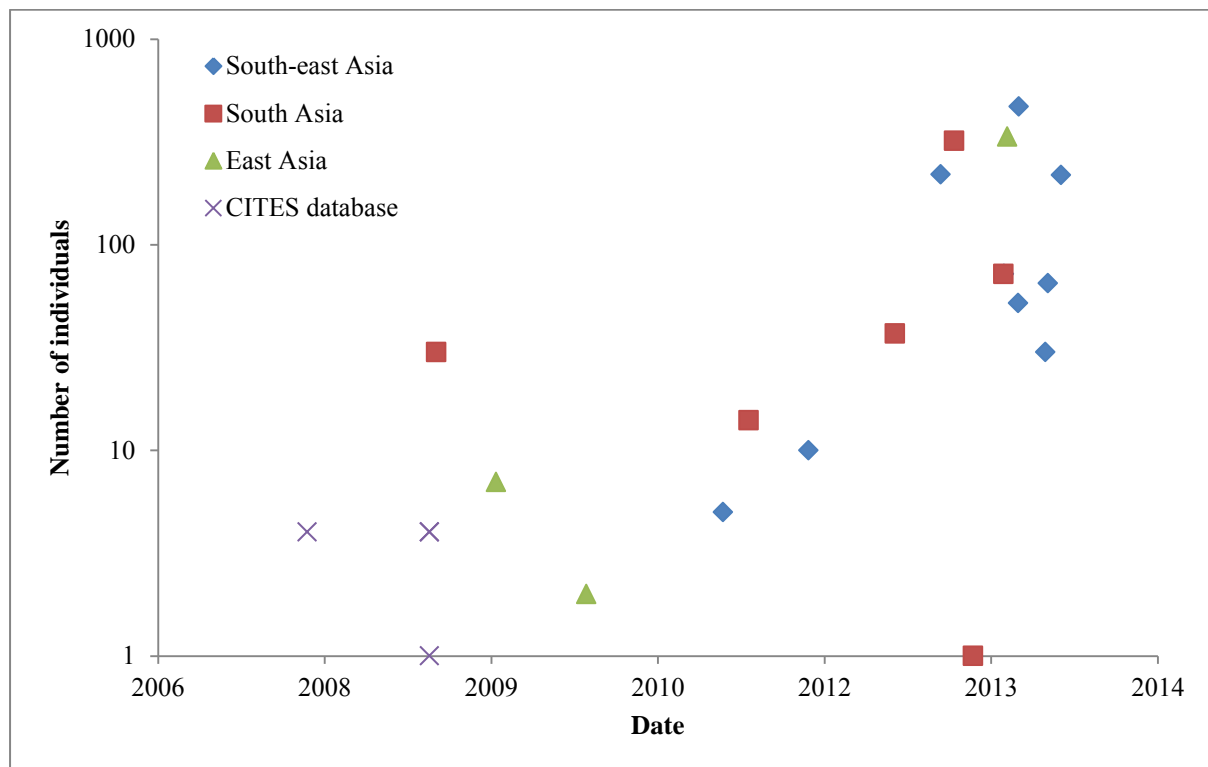
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<sup>1</sup> Although Taiwan is not a Party to CITES, it has legislation to implement the Convention, and designated competent authorities to handle CITES-related issues.

was to conceal the animals in check-in passenger luggage (Figure 3; see also Box 2), and in five cases the bags were uncollected with no sign of the owners.

**Figure 2**

**The number of Black Spotted Turtles in each seizure over time, sorted by geographic region. There is no discernible difference in sizes of shipments taking place in the different regions. Exports of seized animals listed in the CITES trade database are also included. Note that the y-axis is a logarithmic scale and that figures for 2014 are only for the first three months.**



At least 14 seizures contained other freshwater turtle and tortoise species as well, including species popular in the black market pet trade such as Indian Star Tortoise *Geochelone elegans* (CITES Appendix II) and Radiated Tortoise *Astrochelys radiata* (CITES Appendix I). It may therefore also be worthwhile for future work to examine the dynamics, *modus operandi* and trade routes for these other species as this could yield further information to inform prevention measures.

Four shipments of 13 seized Black Spotted Turtles were recorded in the CITES database, all of which took place in 2008 and 2009 (Table 2).

At least three seizures within source countries in South Asia were transported by road in sacks (Table 1). In two recorded cases in India, the turtles were destined for Kolkata, presumably from which the animals can be moved internationally from major airports. Other species such as Indian Star Tortoises have been recorded to be exported internationally from Kolkata (TRAFFIC, 2012).

Mapping of trade routes suggests that Black Spotted Turtles leave South Asia predominantly through Bangladesh, transit through South-east Asia, especially Thailand, and continue to destinations in East Asia including Hong Kong and Taipei (Figure 4, 5). According to information received by TRAFFIC from anonymous sources, the seizures intercepted in Bangkok are believed to have been en route to Hong Kong. It must be noted that as illegal trade may take place undetected along other routes, this map does not illustrate the entirety of trade routes.

### **Prosecutions and penalties**

Out of the 12 cases where the courier was apprehended, 10 (83%) resulted in recorded arrests; the outcomes of the other two cases are unknown (Table 1). In two of the five cases of abandoned bags, the name under which the bags were registered was known but no follow-up investigations were recorded. It is not definitively known whether investigations did not take place or if the results were not publicly reported.

Prosecution processes were infrequently followed through beyond confiscation and arrest. In circumstances where this did happen, the information was either not available or not reported. Only two cases had prosecutions publicly reported (Table 1). A Thai man arrested in Hong Kong for smuggling 338 freshwater turtles, including 335 Black Spotted Turtles, was merely sentenced to three months' imprisonment for illegally importing endangered species and for cruelty to animals, with the sentences running concurrently; in Hong Kong, the maximum penalty is a fine of HKD 5 million (USD 644 719, conversion rate HKD 1 = USD 0.1289) and two years' imprisonment. In Taiwan, the suspect was sentenced to imprisonment of seven months, probation for three years and 80 hours of labour service for smuggling seven Black-spotted Turtles, two Ploughshare Tortoises *Astrochelys yniphora* and 12 Radiated Tortoises.

**Table 1**  
**Seizures of Black Spotted Turtles in Asia from January 2008 to March 2014.**

	Date	Incident description	Trade Route	Count	Outcome	Prosecution
1	12/3/2014	Bangkok, Thailand, Royal Thai Customs, 218 Black Spotted Turtles and 54 Indian Narrow-Headed Softshell Turtles <i>Chitra indica</i> , check-in luggage, two Indian nationals boarding flight to Macau	Gaya and Varanasi, India - Bangkok, Thailand - Macau - Hong Kong	218	Unknown	Unknown
2	1/3/2014	Bihar, India, local police and forestry department, ~750 freshwater turtles including Black Spotted Turtles, concealed in sacks seized from a truck	Uttar Pradesh, India - Bihar, India - Bengal, India - Myanmar	Unknown	Arrest	Unknown
3	31/1/2014	Bangkok, Thailand, Royal Thai Customs, 521 tortoises and freshwater turtles including 440 Indian Star Tortoises and 65 Black Spotted Turtles, five abandoned luggage bags	Chennai, India - Bangkok, Thailand	65	Abandoned bag; no arrests	None
4	24/1/2014	Mae Khong, Thailand, 1506 snakes, tortoises and freshwater turtles including 30 Black Spotted Turtles, packed in baskets on a truck, purchased for sale to Laotian traders	Mae Khong Coastal, Thailand - Lao PDR	30	Arrests	Ongoing
5	18/12/2013	Sasaram, India, Police, ~1100 Black Spotted Turtles and Three-keeled Land Tortoises <i>Melanochelys tricarinata</i> , concealed in sacks on a pick-up truck	Sasaram, India - highway near Amas, India - Kolkata, India - Myanmar	Unknown	Arrest	Unknown
6	8/11/2013	Bangkok, Thailand, Thai Royal Customs, 470 Black Spotted Turtles, four suitcases, a Pakistani national arrested	Lahore, Pakistan - Bangkok, Thailand	470	Arrest	Ongoing
7	5/11/2013	Bangkok, Thailand, Thai Royal Customs, 423 Indian Star Tortoises and 52 Black Spotted Turtles, two uncollected suitcases	Dhaka, Bangladesh - Bangkok, Thailand	52	Abandoned bag; no arrests	None
8	3/11/2013	Bangkok, Thailand, Thai Royal Customs, 72 Black Spotted Turtles and eight other turtle species, two abandoned bags emitting a rotting smell	Dhaka, Bangladesh - Bangkok, Thailand	72	Abandoned bag; no arrests	None
9	1/10/2013	Hong Kong, Customs, 338 freshwater turtles including 335 Black Spotted Turtles, a luggage bag	Bangkok, Thailand - Hong Kong	335	Arrest	3 months imprisonment
10	22/9/2013	Bangkok, Thailand, Thai Royal Customs, 220 Black Spotted Turtles, three abandoned luggage bags	Unknown	220	Abandoned bag; no arrests	None
11	20/9/2013	North 24 Parganas, India, 72 Black Spotted Turtles	Unknown	72	Unknown	Unknown

12	20/6/2013	Cuddalore, India, 1 Black Spotted Turtle	Unknown	1	Unknown	Unknown
13	25/4/2013	Islamabad, Pakistan, Customs, 320 Black Spotted Turtles, hidden in clothes in bags	Islamabad, Pakistan – Bangkok, Thailand	320	Animals released	Unknown
14	15/3/2013	Bangkok, Thailand, CITES officers, 300 Indian Star Tortoises and 10 Black Spotted Turtles, unclaimed bag	Unknown	10	Abandoned bag; no arrests	Unknown
15	29/10/2012	Mumbai, India, 37 Black Spotted Turtles at Mumbai Airport	Unknown	37	Unknown	Unknown
16	18/4/2012	Dhaka, Bangladesh, suitcases containing unknown number of freshwater turtles including Black Spotted Turtle, two Indian nationals arrested	India - Dhaka, Bangladesh - Bangkok, Thailand	Unknown	Arrests	Unknown
17	13/2/2012	Bangkok, Thailand, unknown number of freshwater turtles including five Black Spotted Turtles, Indonesian national arrested	Bangkok, Thailand - Jakarta, Indonesia	5	Arrest	Ongoing
18	17/8/2011	Hardiwar, India, 14 Black Spotted Turtles	Unknown	14	Unknown	Unknown
19	1/6/2011	Bangkok, Thailand, Royal Thai Customs and airport staff, 35 Indian Star Tortoises, 142 Spiny Terrapins <i>Heosemys spinosa</i> and 259 unspecified freshwater turtles including Black Spotted Turtles and 7 gharials <i>Gavialis gangeticus</i> , four bags registered to a Bangladeshi	Dhaka, Bangladesh - Bangkok, Thailand	Unknown	Arrest	Ongoing
20	17/4/2010	Taiwan, Coastal Guard, reptiles including two Black Spotted Turtles, in a cage on the roof of an apartment	NA	2	Unknown	Unknown
21	20/7/2009	Taiwan, Customs, tortoise and freshwater turtle species including seven Black Spotted Turtles, hidden inside air cargo arriving from Hong Kong	Hong Kong - Taipei	7	Arrests; animals sent to shelter	7 months' imprisonment, 3 years' probation and 80 hours' labour service
22	22/1/2009	Allahabad, India, Police, ~3000 Indian Flapshell Turtles <i>Lissemys punctata</i> , Indian Softshell Turtles <i>Nilssonina gangetica</i> and Black Spotted Turtles, sacks in truck	Allahabad, Uttar Pradesh, India - Kolkata, India	30	3 men arrested; animals released	Unknown

**Figure 3**

**Black Spotted Turtles found packed in four suitcases in a seizure at Suvarnabhumi International Airport, November 2013.**



Photo by Panjit Tansom/TRAFFIC

**Table 2**

**CITES trade database records of Black Spotted Turtles traded under the seized specimens source code (I).**

Year	Importer	Exporter	Origin	Importer Quantity	(Re-)Export Quantity	Purpose	Source
2008	Singapore	Hong Kong	Unknown		4	Zoo	Seized specimens
2009	Netherlands	Hong Kong	Unknown		4	Captive breeding	Seized specimens
2009	Singapore	Hong Kong	Unknown		4	Zoo	Seized specimens
2009	Netherlands	Unknown		1		Captive breeding	Seized specimens

Source: UNEP-WCMC CITES Trade Database

Figure 4

Routes of seized shipments of Black Spotted Turtles. Where known, transit point and end destinations were also plotted. Route numbers correspond to reference numbers of cases listed in Table 1. Country/territory centroids were used for locations not specified beyond that level.

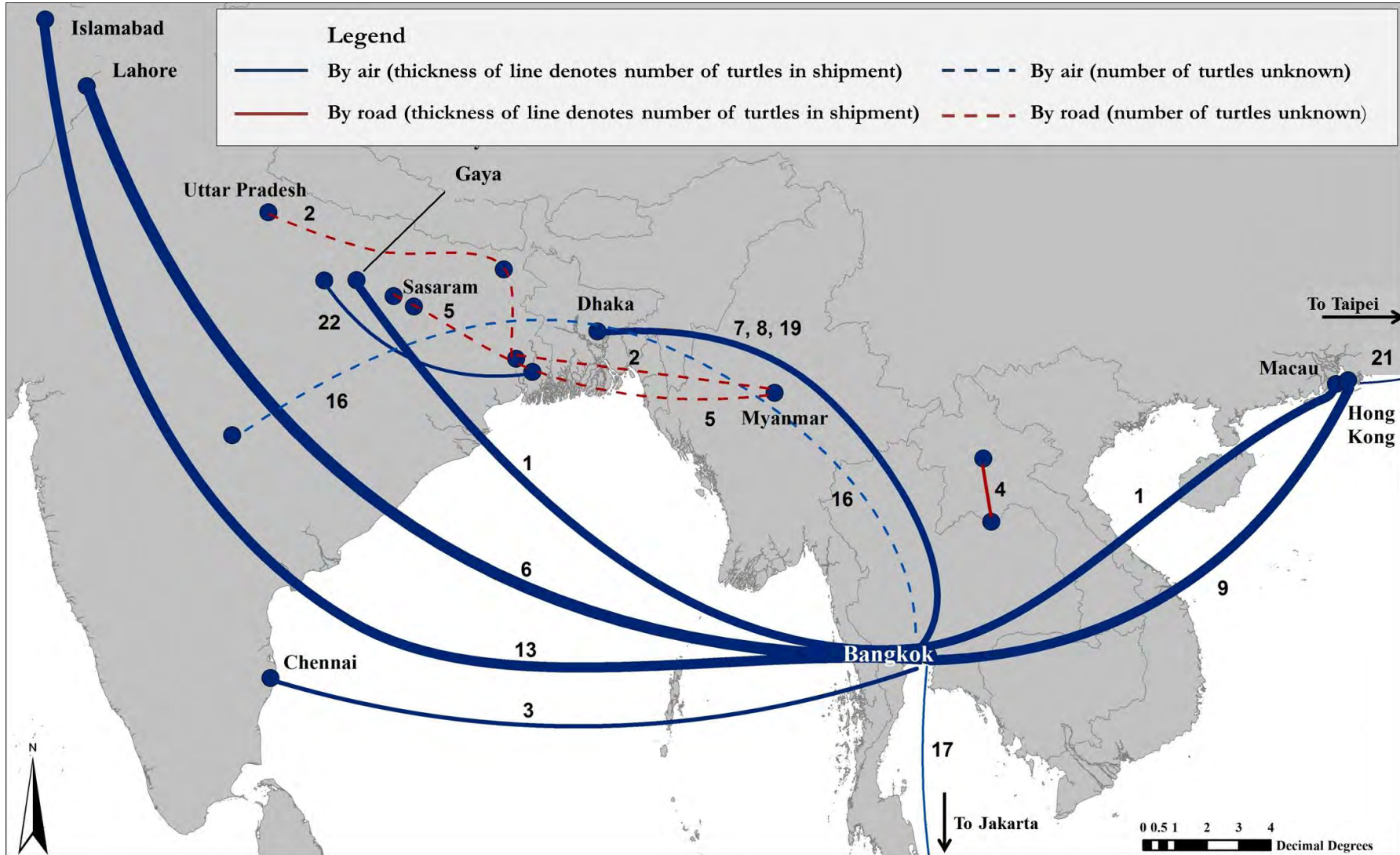
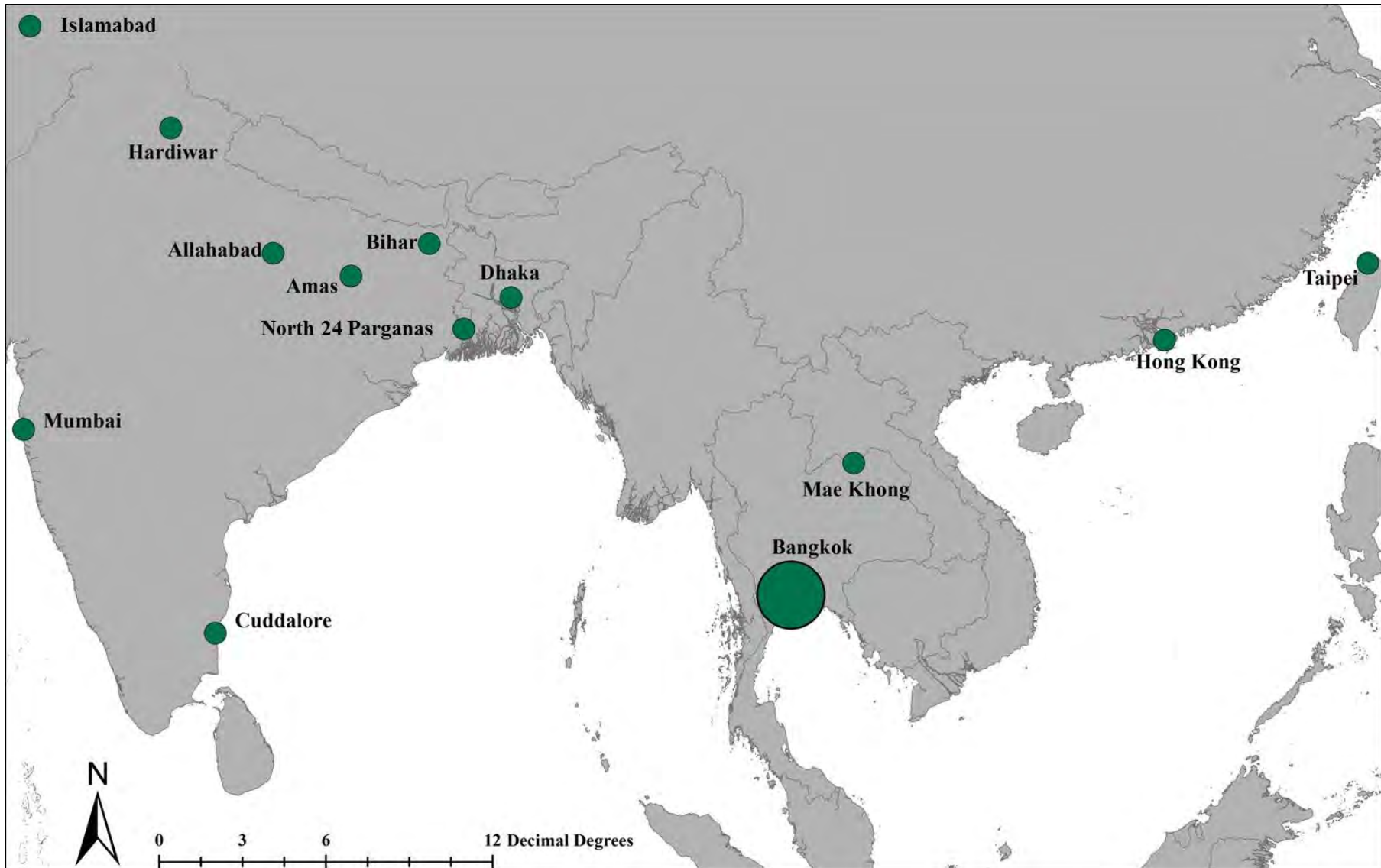




Figure 5

Locations where Black Spotted Turtle seizures took place. Nine seizures took place in Bangkok while other locations reported one seizure each.



## DISCUSSION

Seizures serve as indicators of illegal trade activity. Analyses of seizures are, for example, able to illustrate smuggling hotspots where law enforcement efforts should be focused and form the basis of advocacy for improved investigation, prosecution and legislation (Shepherd and Shepherd, 2010; Stoner and Pervushina, 2013). They also yield insights into trade trends such as routes of shipments and smuggling methods (Babu and Stengel, 2011). However, the seizures dataset is often incomplete and inconsistent, with gaps in reporting effort (Verheij *et al.*, 2010; Babu and Stengel, 2011). Moreover, few CITES Parties include comprehensive seizures data in their CITES annual reports, and while provision of such information is recommended it is not mandatory under the Convention (Phelps *et al.*, 2010). These limitations also need to be considered as caveats, that the scale of illegal trade is far larger than the seizures reported and the number of seizures is indicative of enforcement effort in addition to trade levels (Foley *et al.*, 2011; Stoner and Pervushina, 2013).

None of the trade records of seized animals in the UNEP-WCMC CITES trade database correspond with those reported in the media, further highlighting the gap in seizure records of this species reported in CITES annual reports (Phelps *et al.*, 2010). Proper record keeping is important for enforcement authorities to plan their strategies based on past experience and evidence, and for external organizations such as the CITES Secretariat and government agencies from other countries and territories to be informed about seizure successes and trends within each country. This should be the case for species both native and non-native to each country.

### Figure 6

**An official holds two confiscated Black Spotted Turtles in a seizure at Suvarnabhumi International Airport**



Photo by Panjit Tansom/TRAFFIC

A key question raised is whether most animals entering South-east Asia are in transit or sold in the many wildlife markets such as in Bangkok and Jakarta. According to information received by TRAFFIC from anonymous sources, the demand for trade in this species is largely from the pet trade. However, in a survey of 11 pet shops and stalls selling tortoises and freshwater turtles carried out in Chatuchak Market in Bangkok, Thailand in December 2013, no Black Spotted Turtles were recorded (C. R. Shepherd pers. comm., March 2014). Earlier surveys of retailers reported 15 individuals in 2004 and 1 in 2010 in Jakarta (Stengel *et al.*, 2011), and 2 in 2006, 4 in 2007, 28 in 2009 and 1 in 2010 in Chatuchak Market (Nijman *et al.*, 2012). Based on these observations, there does not appear to be significant centres of demand in South-east Asia. Furthermore, it is currently unclear whether Hong Kong and Taiwan are end-use markets or if they are feeding an increasing demand from elsewhere in East Asia, such as mainland China or Japan. Market surveys in East Asia and further investigation along the trade chain are required to understand the trade dynamics fully.

Black Spotted Turtle populations in Bangladesh, India and Pakistan are vulnerable to poaching and authorities in these countries should be vigilant of potential cases of cross-border smuggling of this species by road or rail especially at border provinces. Multiple seized shipments originated from Dhaka, Bangladesh (Table 1; Figure 4). A seizure at the Shahjalal International Airport, Bangladesh, where suspects were about to board a flight to Bangkok, demonstrates cross-border smuggling; the mixed-species shipment of 415 turtles native to India were reportedly smuggled in from India to be smuggled to Bangkok. A number of seizures reported Indian Star Tortoises being smuggled across the India-Bangladesh border for export from Dhaka (TRAFFIC, 2010; Daily Star, 2012; The Times of India, 2013) and this could be happening for other species including Black Spotted Turtles too. Furthermore, Bangladesh is known to be an important trans-shipment point for freshwater turtles and tortoises smuggled in from India and Myanmar for re-export (Rashid and Khan, 2000).

The presence of Myanmar on the route of two seizures highlights a potential overland route for smugglers from South Asia through mainland South-east Asia to East Asia. The porous borders between Myanmar and China are already privy to extensive wildlife smuggling (Bhupathy *et al.*, 2000; Nijman, 2010; Foley *et al.*, 2011). The old Burma Road is one known route from Myanmar to Yunnan Province in China (Platt *et al.*, 2000). With multiple border crossing points, these terrestrial borders will be more difficult to police than gateways such as airports, and will require additional surveillance as Myanmar's transport infrastructure improves alongside its economic development and trade ties are strengthened with neighbouring Bangladesh, China, India and Thailand.

Government authorities responsible for enforcing CITES have put in commendable efforts to detect and apprehend smugglers, but a lack of follow-on investigations and prosecution lets down this good work.

**Box 2: *Modus operandi* and organized crime groups**

Commercial trade of the Black Spotted Turtle is likely to be higher than seizure records indicate. Existing data show that the preferred *modus operandi* is couriers carrying animals in luggage on passenger airlines, but TRAFFIC’s research shows that organized crime groups are also moving animals through cargo in larger volumes. Organized crime groups use sophisticated smuggling techniques (EIA, 2014), including knowledge of the systems and procedures used in airports to enable them to undertake the clandestine movement of high-value wildlife. Corruption is an enabler behind the unfettered illegal trade (UNODC, 2013; Lawson and Vines, 2014).

Organized crime groups also want to minimise their risks and losses through seizures. Their operations are hence adapted in response to law enforcement efforts, such as shifting transshipment points to smaller airports and using less well-monitored routes.

Based on information received by TRAFFIC from anonymous sources and analysis of seizure data, the main trade chain for Black Spotted Turtles appears to start in South Asia (Bangladesh, India and Pakistan), where animals are collected, and subsequently sent for “wholesale” in Thailand. The market value of the animals rises when sent to retail centres such as Hong Kong. This reiterates the need for intelligence-led investigations co-ordinated throughout the entire trade chain.



## CONCLUSION AND RECOMMENDATIONS

This study shows an escalation in the trade of Black Spotted Turtles for the pet trade. Market surveys in East Asia and further research are required to understand trade drivers and location of end-use demand to determine and guide the next steps in the conservation of this species. Through increased monitoring, enforcement actions and reporting, better understanding of trade dynamics for this species will enable enforcement personnel in export, import and transit countries and territories to be better informed in their efforts to combat illegal trade.

The following recommendations are proposed:

Regional cooperation across the eight countries of the South Asian Wildlife Enforcement Network (SAWEN) is recommended to raise awareness of this issue and address poaching and illegal export of Black Spotted Turtles, with specific priority in Bangladesh, India, Nepal and Pakistan.

Formal Memorandums of Understanding (MOUs) are strongly encouraged between governments of countries and territories along the trade route – Bangladesh, India, Pakistan, Thailand, Hong Kong, Taiwan –to improve cross-border enforcement. Regional platforms of SAWEN, the Association of Southeast Asian Nations Wildlife Enforcement Network (ASEAN-WEN) and INTERPOL should be utilized to catalyse and co-ordinate cross-border efforts to break down criminal networks.

The Black Spotted Turtle can be readily identified due to its unique markings. Customs officials and police officers can refer to identification guides for confirmation (such as the Species Identification Sheets available in different languages at <http://www.asean-wen.org/index.php/factsheets/category/4-species-id>). Greater vigilance at known gateways especially international airports in Dhaka, Bangkok and Hong Kong is required.

Any sale of this species outside range States violates CITES and perpetrators need to be punished accordingly by national laws. It is also recommended that the CITES Secretariat closely monitor and follow up with Parties that repeatedly fail to address illegal trade, in collaboration with INTERPOL and the World Customs Organization.

Improved prosecution procedures and stronger penalties by legal and prosecution systems are required as effective deterrents. Case preparation and securing of evidence, as well as the awareness of the judiciary and maximising application of existing penalties under the legislation are both required for this. In addition to arresting and prosecuting smugglers, full investigations into the intended recipients of the shipments need to be carried out in concert by Customs, police and CITES Management Authority officials to stop successfully the trans-national organized crime networks involved in wildlife smuggling operations at national and sub-national levels.

Improved reporting of seizures by relevant agencies will greatly enhance the value of law enforcement actions. Media coverage of seizures not only raises public awareness of the issue but may also deter potential smugglers and improve the morale of law enforcement staff. Furthermore, timely and detailed reporting to CITES Management Authorities and the CITES Secretariat is recommended to provide a more complete data set to the international conservation community that is crucial for more accurate analyses.

CITES Management Authorities of range States and jurisdictions where seizures have taken place should collaborate on easing procedures for repatriation to range States to enable the return of confiscated animals to wild populations from which they were originally taken from, following IUCN species reintroduction guidelines.

As the Internet is an increasingly dominant market place for illicit wildlife trade, future monitoring of online trade should be undertaken and findings should be considered by CITES Parties (Sajeva *et al.* 2013).

Raising awareness about the issue both to targeted audiences such as amongst airlines and airport staff, and to the general public is recommended. Wildlife crime hotlines in each country should be publicised at trade hotspots such as airports so that members of the public can report any suspicious incidents to relevant authorities.

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TRAFFIC, the wildlife trade monitoring network, works to ensure that trade in wild plants and animals is not a threat to the conservation of nature.

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