

CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES
OF WILD FAUNA AND FLORA



Seventeenth meeting of the Conference of the Parties
Johannesburg (South Africa), 24 September – 5 October 2016

CONSIDERATION OF PROPOSALS FOR AMENDMENT OF APPENDICES I AND II

A. Proposal

The Proponents propose the transfer *Manis crassicaudata* from CITES Appendix II to CITES Appendix I, in accordance with Article II, paragraph 1, of the Convention. This species qualifies for listing on CITES Appendix I because it is threatened with extinction and detrimentally affected by international trade. Specifically, the species meets the biological criteria found in paragraphs C i) and ii) of Resolution Conf. 9.24 (Rev. CoP16), Annex 1, and the precautionary measures found in Annex 4 of that Resolution, due to a marked decline in population size in the wild observed as ongoing or inferred or projected on the basis of levels or patterns of exploitation and a high vulnerability to intrinsic factors (i.e., low reproductive output).

B. Proponent

Bangladesh*:

C. Supporting statement

1. Taxonomy

- | | | |
|--------------------------------------------------------------|-----------------------------------------|-----------------------------------------------------------------------------|
| 1.1 Class: | Mammalia | |
| 1.2 Order: | Pholidota (Weber, 1904) | |
| 1.3 Family: | Manidae (Gray, 1821) | |
| 1.4 Genus, species or subspecies, including author and year: | <i>Manis crassicaudata</i> (Gray, 1827) | |
| 1.5 Scientific synonyms: | None | |
| 1.6 Common names: | English: | Indian Pangolin, Thick-tailed Pangolin |
| | French: | Grand Pangolin de L'Inde, Grand Pangolin de l'Inde, Pangolin a Grosse Queue |
| | Spanish: | Pangolín Indio |
| 1.7 Code numbers: | <i>Manis crassicaudata</i> : | A-108.001.001.001 |

2. Overview

There are eight species in the pangolin family Manidae, four of which live in Asia and four in Africa. *Manis crassicaudata*, the Indian or thick-tailed pangolin, occurs in five range States: Bangladesh, India, Nepal, Pakistan, and Sri Lanka (Baillie et al. 2014). It is a medium-sized mammal (weight: 4.7 kg; length: 89 cm),

* The geographical designations employed in this document do not imply the expression of any opinion whatsoever on the part of the CITES Secretariat (or the United Nations Environment Programme) concerning the legal status of any country, territory, or area, or concerning the delimitation of its frontiers or boundaries. The responsibility for the contents of the document rests exclusively with its author.

that is covered with 11-13 rows of keratinous scales on the dorsal side (Heath 1995). Pangolins have no teeth; they eat termites and ants which they lick up with their long, sticky tongues and swallow whole (Heath 1995). Pangolins have many adaptations to this diet including strong front appendages and claws to break into nests of ants and termites (Heath 1995). Although agile climbers, *M. crassicaudata* is primarily terrestrial and primarily nocturnal, spending the day in a burrow.

Manis crassicaudata is particularly vulnerable to overexploitation due to having a low reproductive output (Mishra and Panda 2012) as generally they produce only one or at most two offspring per year (Baillie et al. 2014, Mahmood et al. 2015), provide maternal care for 5-8 months (Mohapatra and Panda 2012), and have a generation length of seven years (Baillie et al. 2014).

Manis crassicaudata is listed as Endangered by IUCN based on a projected future decline of at least 50% in the next 21 years (three generations of 7 years each) (Baillie et al. 2014); this protected decline is based on significant declines over the past decade of two Critically Endangered Asian pangolin species, *M. pentadactyla* and *M. javanica*, and the predicted shift in trade to other pangolin species like *M. crassicaudata* (Baillie et al. 2014).

Although protected from hunting and trade by national legislation in all range States, *Manis crassicaudata* is thought to be experiencing a significant decline due to poaching for international trade, primarily in scales, originating in India, Pakistan and Nepal and destined for Myanmar and China (Baillie et al. 2014, Katuwal et al. 2013, Mahmood et al. 2012, Mahmood et al. 2014, Mahmood et al. 2015, Misra and Hanfee 2000, Mohapatra et al. 2015, Sharma 2014). Rapid, recent population declines have been demonstrated in one area of Pakistan due to poaching for scales for international trade (Baillie et al. 2014, Mahmood et al. 2015); there are also indications of population declines related to poaching for scales for international trade in India (Mohapatra et al. 2015) and Nepal (Katuwal et al. 2013); and although the species was once widespread in Bangladesh, it may be extinct there now (Baillie et al. 2014).

Pangolin scales are used in traditional Asian medicines to cure a variety of conditions (Challender et al. 2014): to disperse congealed blood, promote menstruation and lactation, reduce swelling, and dispel pain from stiffness or spasms in the limbs or ailments that prevent bending and stretching (Gaski and Johnson 1994).

In the decade preceding 2014, an estimated one million pangolins were taken from the wild for illegal international trade, making pangolins the “most heavily trafficked wild mammal in the world” (Challender et al. 2014). There have been numerous seizures of pangolins and their parts in recent years even though pangolins are protected in most range States and international trade in Asian species has been prohibited since 2000 when the CITES Parties adopted a zero export quota for wild specimens for commercial purposes (Challender et al. 2014). However, most seizures do not identify the species of pangolins involved, making the true scale of illegal international trade in any one pangolin species impossible to ascertain.

During 2004-2013, 219 seizures were made that included an estimated 33,008 individual pangolins and a total of 195,127 kg of pangolins and their products were involved (37,560 kg of scales, 109,866 kg of meat, and 55,544 kg of bodies) (Hofberg et al. 2015). Hoffberg et al. (2015) estimated that these seizures involved approximately 96,410 individual pangolins. Using an INTERPOL rule of thumb that suggests that seizures represent only 10% of the actual black market trade volume (Christy 2012), Hoffberg et al. (2015) estimated that 964,150 individual pangolins were trafficked between 2004 and 2014. This estimate is likely still conservative in comparison to actual trade volume, but it nonetheless echoes the IUCN SSC Pangolin Specialist Group’s estimate of over one million pangolins trafficked over the past decade (Challender et al. 2014).

It is important to note that these seizures are not reflected in the CITES Trade Database (see Annex 1), although Parties are directed to include information on seizures and confiscations in their annual reports. The Database contains only one instance of trade in *Manis crassicaudata* during 2004-2013: one specimen was exported from Sri Lanka to the United States in 2008, where it was seized (Annex 1). The Database contains additional records of trade in pangolin specimens labelled only as *Manis* spp. and it is possible that some of this trade includes *M. crassicaudata* specimens.

The difficulty of identifying pangolins and their parts and products in trade to the species level complicates enforcement. Enforcement is especially problematic when pangolin species have different levels of protection as is currently the case. While it is possible to distinguish amongst pangolin species when they are whole specimens or live animals (Challender et al. 2014), it is not possible to visually identify dried, loose and powdered scales to the species level (Hsieh et al. 2011). DNA analysis can be used to identify

scales to the species level for forensic purposes, but it is not feasible for law enforcement officials to employ such analytical tools for every seizure of scales (Hsieh et al. 2011).

To summarize, *Manis crassicaudata* meets the trade criteria (*are or may be affected by trade*) found in CITES Article II, paragraph 1, and Resolution Conf. 9.24 (Rev. CoP16), because it is in international trade and this trade is having a detrimental impact on the species. *M. crassicaudata* meets the biological criteria for listing on Appendix I in accordance with paragraph C i) and ii) in Annex 1 of Resolution Conf. 9.24 (Rev. CoP16), which states, “a marked decline in the population size in the wild, which has been either: i) observed as ongoing or as having occurred in the past (but with a potential to resume); or ii) inferred or projected”.

3. Species characteristics

3.1 Distribution

Manis crassicaudata is native to Bangladesh, India, Nepal, Pakistan, and Sri Lanka; it is possibly extirpated in Bangladesh (Baillie et al. 2014).

3.2 Habitat

Manis crassicaudata occurs in tropical forests, open land, grasslands, and degraded habitat; it is adaptable to many types of terrain as long as its ant and termite prey remain abundant (Baillie et al. 2014).

3.3 Biological characteristics

Manis crassicaudata is predominantly terrestrial, nocturnal and burrow-dwelling (Baillie et al. 2014). Adults are generally solitary but males and females may share a burrow during the mating season (Baillie et al. 2014). Females typically give birth to one young each year after 165 days of gestation, although twins have been observed (Baillie et al. 2014). In a recent study in Pakistan, eight out of eleven field sightings reported one mother pangolin with two young pangolins (Mahmood et al. 2015). Maternal care is provided for 5-8 months (Mohapatra and Panda 2012). Generation length is estimated at seven years (Baillie et al. 2014). Longevity in the wild is unknown but a captive individual survived for 13 years and two months (Baillie et al. 2014). Pangolins are particularly vulnerable to overexploitation due to their low reproductive output (Mishra and Panda 2012).

3.4 Morphological characteristics

All pangolins have a similar morphology and have a number of adaptations related to their diet of ants and termites including: a conical shaped head, strong claws for breaking apart insect nests, small eyes and thick eyelids, a long, sticky tongue for consuming their prey (Challender et al. 2014), and a muscular stomach with keratinous spines used for mashing their prey, as they have no teeth (Heath 1995). *Manis crassicaudata* is a medium-sized mammal (weight: 4.7 kg; length: 89 cm), that is covered with 11-13 rows of keratinous scales on the dorsal side (Heath 1995). The scales are used to protect themselves from predators (Spearman 1967). A threatened pangolin will roll into a ball with the hard, sharp-edged scales on the outside; females will protect their young at the center of the ball. While able to deter most predators (even lions), this otherwise highly effective anatomy and behavior unfortunately makes it easy for humans to pick up and transport pangolins. Asian pangolin species have hairs between their scales, while African species do not (Challender et al. 2014).

3.5 Role of the species in its ecosystem

Pangolins play an important role in their ecosystem by regulating insect populations (Challender et al. 2014). An adult pangolin consumes an estimated 70 million insects each year (IUCN Pangolin Specialist Group 2015). In addition, abandoned pangolin burrows become shelters for many other species of animals (Nguyen et al. 2014).

4. Status and trends

4.1 Habitat trends

A large proportion of the range of *Manis crassicaudata* has high human population density and rapid loss and deterioration of habitat (Baillie et al. 2014). In India, an increase in the agrarian economy, improved irrigation and the use of pesticides are additional threats (Baillie et al. 2014).

4.2 Population size

It is difficult to estimate population size because pangolins are shy, secretive, nocturnal and solitary (Mahmood et al. 2014). There are no global population estimates and only one published study that provides density estimates for the species in the Potohar Plateau of Pakistan where the average population density is estimated to be 0.010 ± 0.003 / ha (Mahmood et al. 2014). According to Mahmood et al. (2014), *Manis crassicaudata* is thought to occur in low numbers in Bangladesh where it was described as rare in 1986; in India, the overall status is not well known; in Pakistan, it is uncommon; and in Sri Lanka it is of variable abundance but nowhere common.

4.3 Population structure

There is almost no information on population demographics, proportion of mature individuals, or sex ratio of wild pangolin populations. The one exception is a recent study that found a highly biased male: female sex ratio of 16:5 in a population of *Manis crassicaudata* in the Potohar Plateau, Pakistan (Mahmood et al. 2015).

4.4 Population trends

The population trend of *Manis crassicaudata* is decreasing (Baillie et al. 2014) and is thought to be in significant decline due to poaching (Mahmood et al. 2014). The species is listed as Endangered by IUCN based on a projected decline of at least 50% in the next 21 years (three generations of seven years each) (Baillie et al. 2014). The one published study that includes population trend information found the *M. crassicaudata* population density in the Potohar Plateau region of Pakistan declined rapidly by approximately 79% over a three-year period due to illegal hunting for its scales, from 1.08 per km² during 2010, to 0.36 per km² in 2011, and then to only 0.23 per km² in 2012 (Mahmood et al. 2015).

4.5 Geographic trends

Manis crassicaudata has been extirpated from many parts of Bangladesh and may have recently become extinct there (Baillie et al. 2014)

5. Threats

The main threat to the survival of *Manis crassicaudata* is poaching for its scales and meat, for local use and for illegal international trade, particularly in scales which are destined for Myanmar and China (Baillie et al. 2014, Jnawali et al. 2011). According to the IUCN Pangolin Specialist Group, hunting and poaching for illegal international trade in live animals, meat and scales primarily destined for Asia, mainly China and Viet Nam, is the main threats to pangolins (Challender et al. 2014). In the decade preceding 2014, an estimated one million pangolins were taken from the wild for illegal international trade, making pangolins the “most heavily trafficked wild mammal in the world” (Challender et al. 2014). As a result of this poaching and illegal trade, pangolin populations in Asia are in “precipitous decline” and have been extirpated from large areas, and African pangolins are now threatened as well (Challender et al. 2014). As Asian populations have declined, the market has begun to source pangolin and their parts from African species (Challender et al. 2014, Challender and Hywood 2012). While African pangolins were used historically and are used today by locals for food and medicine, an “alarming trend” has developed: an increased trade in parts of all four African pangolin species, mainly scales, from Africa to Asia (Challender et al. 2014, Challender and Hywood 2012).

6. Utilization and trade

6.1 National utilization

Although protected from hunting by national law in each range State, *Manis crassicaudata* is poached for local use; meat is used as a source of protein and medicine as well as for ritual purposes; oil is extracted from the fat and the brain is used for medicinal purposes; the scales are used whole or in powdered form as medicine and are used to make curios, jewelry, and “bullet-proof vests”; and skins are used to make leather goods (Baillie et al. 2014, Katuwal et al. 2013, Mahmood et al. 2012, Misra and Hanfee 2000).

6.2 Legal trade

Manis crassicaudata is protected from hunting and trade by national law in every range State (Baillie et al. 2014). In addition, since 2000, all four Asian pangolin species, including *M. crassicaudata*, have been listed on CITES Appendix II with a zero export quota of wild specimens for primarily commercial purposes. An examination of data in the CITES Trade Database 2004-2013 did not find evidence of legal international trade in the species (Annex 1) of any type or for any purpose. However, as the Database contains numerous pangolin trade records for *Manis* spp., it is possible that *M. crassicaudata* specimens were included in such trade. Legal trade in *Manis* spp. 2004-2013 included: 500 kg scales exported from Singapore to China for commercial purposes in 2010; and five derivatives and one leather product from Malaysia to United States for personal purposes in 2006.

6.3 Parts and derivatives in trade

Scales, meat and leather goods are the most common *Manis crassicaudata* specimens in illegal international trade, originating in India, Pakistan and Nepal and destined for Myanmar and China (Baillie et al. 2014).

6.4 Illegal trade

For all pangolin species, the IUCN Pangolin Specialist Group identified hunting and poaching for illegal international trade in live animals, meat and scales primarily destined for Asia, mainly China and Viet Nam, as the primary threat (Challender et al. 2014). Pangolin meat is considered a luxury product in Asia, and pangolin scales are used in traditional Asian medicines to cure a variety of conditions (Challender et al. 2014): to disperse congealed blood, promote menstruation and lactation, reduce swelling, and dispel pain from stiffness or spasms in the limbs or ailments that prevent bending and stretching (Gaski and Johnson 1994). In the decade preceding 2014, an estimated one million pangolins were taken from the wild for illegal international trade, making pangolins the “most heavily trafficked wild mammal in the world” (Challender et al. 2014). Tons of pangolin meat and scales are confiscated in illegal international trade every year, even though pangolins are protected in most range States and international trade in Asian species has been prohibited since 2000 when the CITES Parties adopted a zero export quota for wild specimens for commercial purposes (Challender et al. 2014).

As a result of this poaching and illegal trade, pangolin populations in Asia are in “precipitous decline” and have been extirpated from large areas, and African pangolins are now threatened as well (Challender et al. 2014). As Asian pangolin populations have declined, the Asian market has begun to source pangolins from African species (Challender et al. 2014). While African pangolins were used historically by local people in Africa for food and medicine, and continue to be so used today, an “alarming trend” has developed whereby there is escalating trade in parts of all four African pangolin species, mainly scales, from Africa to Asia (Challender et al. 2014, Challender and Hywood 2012, Pietersen et al. 2014, Waterman et al. 2014a, b, c).

Although protected from hunting and trade by national legislation in all range States, *Manis crassicaudata* is poached and traded illegally and this is causing the decline of wild populations (Baillie et al. 2014). Specimens of the species, primarily scales, originate in India, Pakistan and Nepal and are destined to Myanmar and China (Baillie et al. 2014). This conclusion is based on several field studies discussed below.

Misra and Hanfee (2000) conducted an 8-month survey in East India, visiting markets and meeting with people in West Bengal and Orissa during 1997 and 1998. They found that hunters used dogs to

track pangolins; the scales were extracted after killing and skinning the animals; and scales from one animal weighed 1 kg on average. Scales were regularly sold in markets and, in addition to being used locally, were destined for Nepal and Myanmar; the price at the collection point was INR 250-500/kg, at the main trading centers was INR 500-1000/kg, and at the border trading centers was INR 7,000-8000/kg.

Sharma (2014) described trade of pangolin scales from northeast India to Nepal and Myanmar and then on to China. Details are provided of seven seizures in India during 2013, totaling 399 kg of pangolin scales, two major seizures in 2010 totaling 1,205 kg, and another in 2012 of 380 kg. From these details, a general pattern of trade emerged: local hunters poach and kill pangolins; the meat is consumed or sold in local markets while the scales are delivered to middlemen who may have made advanced payments to the poachers; such middlemen live in larger cities or border towns; the scales are transported by rail, air or post, eventually reaching border towns near Nepal or Myanmar; and from there, the scales are transported to China.

Mohapatra et al. (2015) studied reported seizures that took place over a six-year period (2009-2014) and found that seizures took place in ten States in India and that more than 5913 kg of scales and two whole pangolins were seized. Scales were delivered to middlemen from Kolkata located in the far eastern part of India near Bangladesh, Chennai located on the southeast coast, and border towns near Bangladesh, Nepal, Bhutan and Myanmar. From there the scales are destined for China via Myanmar and Nepal. Myanmar and Nepal nationals caught with pangolin scales, and Indian nationals caught with Myanmar currency support the authors' findings about this trade. Smugglers confessed that the scales originated in various Indian States. This study found that decreasing volumes of pangolin scales (measured in kg) were seized over the period of the study which may indicate increasing rarity of the species. Pangolin scales were reported to be sold for Rs 1000 /kg in 1996 but increased to Rs 12,000-13,000/kg in 2013 in the same city. The authors concluded that increasing prices and persistence of trade is linked to demand in China.

Mahmood et al. (2012) documented poaching and trade of 118 *Manis crassicaudata* over a 17-month period during 2011 and 2012 in four districts in Pakistan's Potohar Plateau region. Nomads and trained local hunters were involved in the poaching; pangolins were boiled alive in water to remove the scales and the body was discarded; the scales were used in illegal local and international trade; and the scales were used to make "bullet-proof" jackets which are in demand in Pakistan, and for traditional Chinese medicine. Local sources indicated that scales were regularly transported from the study area to Islamabad and Lahore in Pakistan. The study documented the transport of 24 kg of scales from Chakwal to Islamabad during Feb 2012 which was believed to be linked to a subsequent seizure in China in April 2012, of 25.4 kg of pangolin scales; the smuggler, a Chinese national, admitted to obtaining the scales when he was working in Pakistan and said that he was planning to sell them in China. Mahmood et al. (2014) confirmed that *M. crassicaudata* is being poached frequently in the study area to obtain scales. Mahmood (2015) found the average population density of the species in the Potohar Plateau region was estimated at 1.08 /km² individuals during the year 2010, 0.36/km² individuals in 2011 and 0.23/km² individuals in 2012, demonstrating a rapid decline of approximately 79% over a period of three years due to illegal hunting for its scales.

Katuwal et al. (2013) documented pangolin trade in eastern Nepal (*Manis pentadactyla* and *M. crassicaudata*) through news reports in national daily newspapers in 2011-2013 and found seizures totaling approximately 80 kg of scales and six live pangolins. The reports indicated that scales were destined for China over the Nepal-China border. The authors then studied pangolin trade in four districts in eastern Nepal. Interviews with local people indicated that pangolin scales were traded from village to village, finally reaching the China border; scales were also sold in local markets and people come from China to buy them. The price for scales was Rs 10,000–15,000/kg to Rs 40,000–50,000/kg and higher at the border. The authors concluded that pangolin trade was the major problem for survival of pangolins in the area, pangolin hunting was increasing, poachers were using local youth to trap pangolins, local people know about the poaching but did not report it to officials, and the pangolin population was decreasing rapidly in the area due to illegal hunting and trade.

In addition to field studies, there have been numerous seizures of pangolins and their parts in recent years. However, most seizures do not identify the species of pangolins involved, making the true scale of illegal international trade in any one pangolin species impossible to ascertain. Nonetheless, during 2004-2013, 219 seizures were made that included an estimated 33,008 individual pangolins and a total of 195,127 kg of pangolins and their products were involved (37,560 kg of scales, 109,866 kg of meat, and 55,544 kg of bodies) (Hofberg et al. 2015). Hoffberg et al. (2015) estimated that these

seizures involved approximately 96,410 individual pangolins. Using an INTERPOL rule of thumb that suggests that seizures represent only 10% of the actual black market trade volume (Christy 2012), Hoffberg et al. (2015) estimated that 964,150 individual pangolins were trafficked between 2004 and 2014. This estimate is likely still conservative in comparison to actual trade volume, but it nonetheless echoes the IUCN SSC Pangolin Specialist Group's estimate of over one million pangolins trafficked over the past decade (Challender et al. 2014).

Seizures of pangolins and their parts not identified to the species level, but which may well have included *Manis crassicaudata*, have occurred over the past ten years (Annex 2), and both reports of seizures and quantities seized have increased over this time. These include:

- 2005: 784 dead pangolins along with 20 kg of carcass derivatives and 972 kg of scales seized in Indonesia, destination unknown.
- 2006: 200 live and 200 dead pangolins seized in Indonesia, destined for China.
- 2007: 168 live pangolins seized in Malaysia, destined for China.
- 2008: 23 tonnes of frozen pangolin carcasses seized in Viet Nam, destined for China.
- 2010: 2,090 frozen pangolins and 92 cases of scales (nearly eight tonnes of pangolins and pangolin scales) seized from a fishing vessel in Guangdong, China.
- 2013: a Chinese vessel caught in the Philippines contained 400 boxes of frozen pangolin meat (over 10,000 kg); pangolin scale export racket was busted in India, and 25 kg of pangolin scales were seized; 6.2 tonnes of pangolins were seized by Viet Nam Customs officials from a 40-foot cargo container arriving from Indonesia.
- 2014: border police in Zhuhai, China, seized a shipment of 956 frozen pangolin bodies in 189 boxes, weighing a total of 4 tonnes; in Guangdong province, China, a driver was arrested with 956 pangolin carcasses; 457 dead pangolins were found in four refrigerators by Guangdong, China, police.
- 2015: five tonnes of frozen pangolins (three to four thousand animals), 77 kg of scales, and 96 live animals were seized from a warehouse in Indonesia; 1.3 tonnes of frozen pangolins bound for Singapore were seized in Indonesia; four tonnes of pangolin scales that arrived from Malaysia were seized by Customs in Da Nang, Viet Nam; and 2,674 pangolin bodies were confiscated in south China's Guangdong Province by Chinese customs; 63 live pangolins were seized in Malaysia destined for Thailand; 80 live and one dead pangolin were seized at a checkpoint between Lao PDR and Thailand, destined for China; 970 kg of scales were seized at a port in China; and 2,000 kg scales were seized in at a port in Viet Nam destined for Taiwan.

It is important to note that these seizures are not reflected in the CITES Trade Database (see Annex 1), although Parties are directed to include information on seizures and confiscations in their annual reports. The CITES Trade Database shows that Asian pangolin specimens were seized in large numbers but mostly by the United States and other countries (such as New Zealand, United Kingdom, and Japan) not considered to be the major consumers. According to information in the CITES Trade Database, seizures by major consuming countries such as China and Viet Nam did not occur. Seized Asian pangolin specimens in trade for commercial purposes included: derivative items (ten), live (two), medicine items (ten), loose scales (12), and scales measured in grams (2045 g). Many other specimens identified only as *Manis* spp. but potentially Asian species because they were exported from Asia, were seized from commercial trade including: 1243 derivatives, 30 medicines, and 500.13 g scales. The Database contains only one instance of trade in *Manis crassicaudata* during 2004-2013: one specimen was exported from Sri Lanka to the United States in 2008, where it was seized (Annex 1).

The difficulty of identifying pangolins and their parts and products in trade to the species level complicates enforcement. Enforcement is especially problematic when pangolin species have different levels of protection as is currently the case. While it is possible to distinguish amongst pangolin species when they are whole specimens or live animals (Challender et al. 2014), it is not possible to visually identify dried, loose and powdered scales to the species level (Hsieh et al. 2011).

DNA analysis can be used to identify scales to the species level for forensic purposes, but it is not feasible for law enforcement officials to employ such analytical tools for every seizure of scales (Hsieh et al. 2011).

6.5 Actual or potential trade impacts

According to IUCN, the current population trend of *Manis crassicaudata* is declining and, specifically, there is a continuing decline of mature individuals (Baillie et al. 2014). The species is classified as Endangered by IUCN based on the fact that “it is suspected populations of this species will fall by at least 50% in the next 21 years (generation length estimated at 7 years) given the significant declines in *M. pentadactyla* and *M. javanica* over the last decade and the transfer of trade attention to other pangolin species following the formers’ collapse” (Baillie et al. 2014). Although protected from hunting and trade by national legislation in all range States, *M. crassicaudata* is poached in India, Pakistan and Nepal and trafficked to China, often via other range States or Myanmar (Baillie et al. 2014, Misra and Hanfee 2000, Sharma 2014, Mahmood et al. 2012 and 2014, Mohapatra et al. 2015, Katuwal et al. 2013). Recently published field studies in India (Mohapatra et al. 2015), Nepal (Katuwal et al. 2013), and Pakistan (Mahmood et al. 2012, Mahmood et al. 2014, Mahmood et al. 2015) have provided additional indications that poaching and illegal international trade are the main threat and are having a negative impact on wild populations. In the only study of its kind on this species, Mahmood (2015) found the average population density of the species in the Potohar region of Pakistan declined from 1.08 /km² individuals during the year 2010, 0.36/km² individuals in 2011 and 0.23/km² individuals in 2012, demonstrating a rapid decline of approximately 79% over a period of three years due to illegal hunting for its scales.

7. Legal instruments

7.1 National

Manis crassicaudata is protected from hunting and trade in all range States (Baillie et al. 2014): in Bangladesh under the Wildlife (Conservation & Security) Act 2012; in India under the Wildlife Protection Act 1972; in Pakistan under the Islamabad Wildlife (Protection, Preservation, Conservation, and Management) Ordinance, 1979 and the North-West Frontier Province Wildlife (Protection, Preservation, Conservation, and Management) Act, 1975; in Nepal under the National Parks and Wildlife Protection Act (1973, as amended 1993); and in Sri Lanka under the Fauna and Flora Protection (Amendment) Act (No. 22) 2009.

7.2 International

Manis crassicaudata is listed on CITES Appendix II with an annotation containing a zero export quota for wild-caught specimens traded for commercial purposes, established in 2000.

8. Species management

8.1 Management measures

Programs to manage wild populations of any of the eight species of pangolins do not exist in any range State.

8.2 Population monitoring

Pangolin population monitoring programs do not exist in any range State.

8.3 Control measures

8.3.1 International

There are no international measures in place other than CITES to control the movement of pangolin specimens across international borders. However, all range States are members of the South Asian Wildlife Enforcement Network (SAWEN), a regional network with a mission to strengthen, promote and coordinate regional cooperation for curbing illegal wildlife trade that threatens wild flora and fauna in South Asia (SAWEN 2016).

8.3.2 Domestic

Manis crassicaudata is protected by national law from hunting and trade in all range States (Baillie et al. 2014). Given the widespread poaching and illegal domestic and international trade in the species, there is a need for greater enforcement and other measures to prevent poaching.

In India January 2014 the Wildlife Crime Control Bureau in New Delhi, India, issued an alert to police, forest, Customs and postal authorities throughout the country to highlight the extent of this trade; subsequently, one person apprehended with 10.7 kg of pangolin scales in November 2014 was sentenced to two months' imprisonment, suggesting that this alert may have started to translate into enforcement action and subsequent prosecutions (Sharma, 2014).

Efforts to address wildlife trafficking generally have occurred recently in Bangladesh (CITES Secretariat 2015), India (TRAFFIC 2016), Nepal (Neme 2014), Pakistan (Jaffri 2015), and Sri Lanka (TRAFFIC 2011).

8.4 Captive breeding and artificial propagation

The Nandankanan Zoological Park in India has maintained *Manis crassicaudata* in captivity since 1982 and, in 2008, established a Pangolin Conservation Breeding Centre to develop proper housing, husbandry and captive breeding for conservation purposes (Mohapatra and Panda 2014). Pangolins are difficult to maintain in captivity; stress and malnutrition are the major causes of death of captive pangolins; and the mortality rate of wild-caught Indian pangolins is 67% within one year in captivity (Mohapatra and Panda 2014). Wild-caught pangolins have mated and given birth at the Centre (Mohapatra and Panda 2014); however of 20 births at the Center between 1971 and 2011, only four pangolins survived more than a year (Mohapatra and Panda 2014). There is no evidence of successful breeding of pangolins born at the facility to the F2 or second generation. Indeed, over the past 150 years, more than 100 zoos or organizations have attempted to maintain pangolins but most captive pangolins died within six months; captive breeding of pangolins is still difficult, and there are no reports of successful reproduction to the second generation (Hua et al. 2015).

8.5 Habitat conservation

No information.

8.6 Safeguards

Not relevant.

9. Information on similar species

There are no species similar to pangolins. However it is difficult for non-experts to distinguish amongst pangolin species in trade, and not possible to visually identify to the species level pangolin scales and scale powders, which are the most common derivatives in trade.

10. Consultations

India

11. Additional remarks

12. References

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International Trade in Pangolins According to Information Contained in the CITES Trade Database

Tables in this Annex were produced by searching the UNEP-WCMC CITES Trade Database (details below each table) for the years 2004-2013, inclusive.

Purposes of trade: Most specimens in the database were traded for commercial and personal purposes (Tables 1a /1b and 2a /2b). Specimens were also traded for the following purposes: three specimens were traded as hunting trophies; 51 specimens for medical purposes; six specimens as part of travelling exhibitions; and 14 live animals for zoological purposes. No pangolins or their products in trade were reported as traded for the purposes of breeding in captivity, reintroduction or introduction into the wild.

Sources of specimens in trade: Most specimens in the database were sourced from the wild. Other sources for pangolins in trade included: 109 specimens recorded as captive-bred; 12 reported as pre-convention; and 1,510 identified as ranched. Considering that pangolins are exceedingly difficult to keep alive in captivity, and not known to have been successfully bred in captivity, the claim that some specimens were captive-bred or came from ranching operations is questionable. Regarding the ranched specimens: Togo exported 10 ranched skins of *Manis gigantea* to Mexico in 2011, and 500 ranched live *M. tricuspis* to Italy in 2008; Thailand exported 10 ranched skins of *M. gigantea* to Mexico in 2013; and Lao PDR exported 1,000 ranched skins of *M. pentadactyla* to Mexico in 2010. No data existed for the following source: born in captivity.

General conclusions:

- There is a significant amount of trade recorded in the database that is not identified to the species level but recorded as *Manis* spp. This demonstrates the difficulty of distinguishing between species in trade and lending further support for listing the genus on CITES Appendix I.
- A large number of pangolins and pangolin products were traded over the 10-year period (2004-2013). However, given the estimate of one million pangolins illegally traded over the past ten years, it is clear that the amount of trade recorded in the database is a small fraction of the suspected level of international trade, meaning that most trade is not recorded and is occurring outside of CITES regulation.
- Despite the zero export quota for wild specimens of Asian pangolin species for commercial purposes established by CITES in 2000, Asian pangolin specimens were traded internationally and not seized during 2004-2013. This included: 1000 *Manis pentadactyla* skins, declared as “ranched” and exported for commercial purposes from Lao PDR to Mexico in 2010; 2,800 kg of *M. javanica* scales exported for commercial purposes from Singapore to China in three shipments in 2009, 2010, and 2012; and 500 kg *Manis* spp. (possibly an Asian species) scales exported from Singapore to China in 2010.
- Asian pangolin specimens were seized in large numbers but mostly by the United States which is not considered by experts to be a major consumer state. Seizures by countries considered by experts to be major consuming countries, such as China and Viet Nam, were uncommon in the database. This may reflect strong law enforcement measures to implement CITES in the United States and lack of similar enforcement in major consuming countries, with respect to pangolin trade. Or it may reflect the fact that the United States records seizures in its CITES Annual Reports, whereas the other countries do not. Seized Asian pangolin specimens in trade for commercial purposes included: derivative items (10), live (2), medicinal items (10), loose scales (12), and scales measured in grams (2,045 g). Many other specimens identified only as *Manis* spp. but potentially Asian species because they were exported from Asia, were seized from commercial trade including: 1,243 derivatives, 30 medicines, and 500.13 grams of scales.
- African pangolin specimens are recorded in the database. *Manis gigantea*, which were not recorded in the database until 2011, were exported for commercial purposes as live animals (68), scales (325 g and 65 loose) and skins (470) from the range States of Togo and Uganda and also non-range States of Thailand and the United States (which imported specimens from Togo). Ten live *M. temminckii* were exported for commercial purposes from Democratic Republic of the Congo to Italy. *M. tricuspis*, which were not recorded in the database until 2011, were exported for commercial purposes from the range States of Benin, Cameroon, Guinea and Togo as live (674), scales (60 kg), skin pieces (51), and skins (406); regarding the live trade in this species, 500 were exported to Italy, 250 to Lao PDR, and 200 to Viet Nam. Twelve live *M. tetradactyla*, 10 skeletons, 2 skins and 14 skulls were exported for commercial purposes from Togo and Cameroon. *Manis* spp. in trade

from African countries, and therefore likely African pangolins, included 50 scales exported for commercial purposes from Uganda; and for personal purposes: 2 kg bodies from Cameroon; 6 bodies from Cameroon, Ghana and Nigeria; 428 g meat from Cote d'Ivoire; 2.454 kg meat from Ghana; and 4 meat items from Liberia.

Manis spp.:

- Commercial purposes: 2 bodies (Equatorial Guinea, Lao PDR to United States, seized), 1,243 derivatives (China, Viet Nam to United States, seized), 9 leather products (Philippines, United Arab Emirates, Cameroon to United States, seized), 30 medicines (China to United States, seized), 50 scales (Uganda to United States, seized), 500.13 kg scales (Singapore, Thailand to China, United States, seized), 53 skins (Cote d'Ivoire, Philippines, Thailand to United States, seized), 1 skin piece (Canada to United States, seized). Not seized: 500 kg scales exported from Singapore to China in 2010.
- Personal purposes: 9 bodies (Cameroon, Ghana, Lao PDR, Nigeria to United States, seized), 1 claw (Lao PDR to United States, seized), 60 g derivatives (China to New Zealand, seized), 2 kg derivatives (China to United States, seized), 2,020 derivative items (Canada, China, Germany, Hong Kong, Malaysia, Viet Nam to New Zealand and United States, seized except for 5 from Malaysia to United States in 2006), 43 leather products (Mexico, Malaysia to United States, seized except for 1 from Malaysia in 2006), 493 g meat (Cote d'Ivoire, Lao PDR to United States, seized), 2.454 kg meat (Ghana to United States, seized), 4 meat items (Liberia to United States, seized), 277 medicines items (Canada, China, Viet Nam to United States, seized), 14 g powder (China to New Zealand, seized), 1379 g scales (China, Hong Kong, Lao PDR, Thailand to United States, seized), 0.296 kg scales (Thailand to United States, seized), 419 individual scales (Brazil, China, Lao PDR, Thailand, South Africa to New Zealand, United States, seized), 54 shoes (Mexico to United States, seized), 30 skin pieces (Lao PDR, Mexico, Thailand, Taiwan to United States, seized), 3 tails (Lao PDR to United States, seized), 100 g unspecified (Lao PDR to United States, seized), 1 unspecified item (Lao PDR to United States, seized).
- Confiscated / seized (not noted above): 2,655 individual scales from an unknown origin confiscated by Indonesia, 100 specimens exported from Hong Kong to the United States, 24 g unspecified from Lao PDR to the United States.

Manis crassicaudata:

- Occurs only once in the database: 1 specimen exported from Sri Lanka to the United States in 2008, where it was confiscated / seized.

Manis pentadactyla:

- Commercial purposes: 1 claw (Netherlands to Qatar), 10 derivative items (Viet Nam to United States, seized), 2 live (Taiwan to Japan, seized), 10 medicine items (Viet Nam to United States, seized), 12 scales (China to United States, seized), 1,000 skins (Lao PDR to Mexico). Of concern: 1,000 skins from Lao PDR to Mexico in 2010 were not seized.
- Personal purposes: 690 g derivatives (China, Viet Nam to United States, seized), 1 kg derivatives (Viet Nam to United States, seized), 24,202 derivative items (China, Indonesia, Lao PDR, Viet Nam to United States, seized), 1,466 g medicine (Viet Nam to United States, seized), 191 medicine items (Viet Nam to United States, seized), 0.409 kg scales (Viet Nam to United States, seized), 2 skins (Viet Nam to United States, seized).
- Confiscated / Seized: As noted above.

Manis javanica:

- Commercial purposes: 1 garment (Netherlands to United States), 1 small leather product (Japan to Singapore), 2,045 g scales (China to United States, seized), 2,800 kg scales (Singapore to China). Of concern: the 2,800 kg of scales from Singapore to China was not seized.
- Personal purposes: 2 derivative items (Thailand to United States, seized), 2 skins (Lao PDR, Thailand to United States, seized).
- Confiscations / Seizures (in addition to those above): 11 live (Malaysia to Hong Kong in 2013), 9 specimens in flasks (Singapore to United States in 2004), 0.3 ml specimens (Malaysia to United Kingdom in 2013).

Manis culionensis:

- Not recorded in database.

Manis gigantea:

- Commercial purposes: there was no trade recorded before 2011 (data are for 2011-2013), 68 live (Togo to Spain, Japan, Lao PDR), 325 kg scales (Togo, Uganda to Thailand, Viet Nam), 65 scales (Togo to Thailand), 470 skins (Togo, Thailand, US to Mexico, Thailand, United States).
- Personal purposes: 175 g derivatives (China to New Zealand, seized).
- Confiscated / Seized: As noted above.

Manis temminckii:

- Commercial: 1 body (Netherlands to United States), 10 live (Democratic Republic of the Congo to Italy).
- Personal: 2 bodies (South Africa to New Zealand), 1 carving (United Kingdom to Australia), 1 small leather product (South Africa to New Zealand), 1 live (Democratic Republic of the Congo to the United States).
- Confiscated / Seized: None.

Manis tricuspis:

- Commercial: there was no trade recorded in scales, skins, skin pieces before 2011; 1 carving (Netherlands to United States), 764 live (Benin, Cameroon, Togo to United Arab Emirates, Czech Republic, Spain, Italy, Japan, Lao PDR, Netherlands, Tonga, United States (10 seized), Viet Nam), 60 kg scales (Togo to Hong Kong), 50 skin pieces (Thailand to United States), 406 skins (Cameroon, Guinea, Thailand to France, Mexico, Thailand, United States (51 seized). Of concern regarding the trade in live specimens: 500 to Italy, 250 to Lao PDR, 200 to Viet Nam. Of concern: Thailand, a non-range State, imported 250 skins and exported 50 skin pieces and 150 skins.
- Personal purposes: 1 skin (Congo to United States, seized), 2 trophies (Cameroon to France).
- Confiscated / Seized: As noted above.

Manis tetradactyla:

- Commercial: 12 live (Togo to Italy, Spain, Netherlands, Japan, United States), 10 skeletons (Cameroon to United States, seized), 2 skins (Cameroon to France), 14 skulls (Cameroon to United States, 4 seized).
- Personal: None.
- Confiscated / Seized: As noted above.

Table 1a: Gross Exports for Commercial Purposes

Taxon	Term	Unit	Country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<i>Manis gigantea</i>	live		TG Togo								10	58	
<i>Manis gigantea</i>	scales	kg	TG Togo								50	135	
<i>Manis gigantea</i>	scales	kg	UG Uganda									70	70
<i>Manis gigantea</i>	scales		TG Togo								20	45	
<i>Manis gigantea</i>	skins		TG Togo								10		225
<i>Manis gigantea</i>	skins		TH Thailand										10

Taxon	Term	Unit	Country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<i>Manis gigantea</i>	skins		US United States										225
<i>Manis javanica</i>	garments		NL Netherlands										1
<i>Manis javanica</i>	leather products (small)		JP Japan						1				
<i>Manis javanica</i>	scales	g	CN China	2045									
<i>Manis javanica</i>	scales	kg	SG Singapore						1000	1000		800	
<i>Manis pentadactyla</i>	claws		NL Netherlands										1
<i>Manis pentadactyla</i>	derivatives		VN Viet Nam					10					
<i>Manis pentadactyla</i>	live		TW Taiwan									2	
<i>Manis pentadactyla</i>	medicine		VN Viet Nam									10	
<i>Manis pentadactyla</i>	scales		CN China						12				
<i>Manis pentadactyla</i>	skins		LA Lao PDR						1000				
<i>Manis spp.</i>	bodies		GQ Equatorial Guinea									1	
<i>Manis spp.</i>	bodies		LA Lao PDR		1								
<i>Manis spp.</i>	derivatives		CN China				281	204	87	470	45		
<i>Manis spp.</i>	derivatives		VN Viet Nam			24		120		12			
<i>Manis spp.</i>	leather products (large)		PH Philippines					2					
<i>Manis spp.</i>	leather products (small)		AE United Arab Emirates										6
<i>Manis spp.</i>	leather products (small)		CM Cameroon							1			
<i>Manis spp.</i>	medicine		CN China									30	
<i>Manis spp.</i>	scales	kg	SG Singapore							500			
<i>Manis spp.</i>	scales	kg	TH Thailand						0.13				
<i>Manis spp.</i>	scales		UG Uganda						50				
<i>Manis spp.</i>	skin pieces		CA Canada										1
<i>Manis spp.</i>	skins		CI Côte d'Ivoire						1				
<i>Manis spp.</i>	skins		PH Philippines		1								
<i>Manis spp.</i>	skins		TH Thailand								50		
<i>Manis temminckii</i>	bodies		NL Netherlands		1								
<i>Manis temminckii</i>	live		CD Congo DRC	10									
<i>Manis tetradactyla</i>	live		TG Togo	3			1					8	

Taxon	Term	Unit	Country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<i>Manis tetradactyla</i>	skeletons		CM Cameroon				10						
<i>Manis tetradactyla</i>	skins		CM Cameroon								2		
<i>Manis tetradactyla</i>	skulls		CM Cameroon				14						
<i>Manis tricuspis</i>	carvings		NL Netherlands		1								
<i>Manis tricuspis</i>	live		BJ Benin							2	2		
<i>Mani stricuspis</i>	live		CM Cameroon				20		4				
<i>Manis tricuspis</i>	live		TG Togo				16	520			12	458	
<i>Manis tricuspis</i>	scales	kg	TG Togo										60
<i>Manis tricuspis</i>	skin pieces		TH Thailand								50		
<i>Manis tricuspis</i>	skins		CM Cameroon								6		
<i>Manis tricuspis</i>	skins		GN Guinea								250		
<i>Manis tricuspis</i>	skins		TH Thailand								50		100

Source: UNEP-WCMC CITES Trade Database searched on 22 April 2015 for *Manis* spp., using commercial purposes, all sources, all trade terms.

Table 1b: Gross Imports for Commercial Purposes

Taxon	Term	Unit	Country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<i>Manis gigantea</i>	live		ES Spain									5	
<i>Manis gigantea</i>	live		JP Japan								10	3	
<i>Manis gigantea</i>	live		LA Lao PDR									50	
<i>Manis gigantea</i>	scales	kg	TH Thailand								50	135	
<i>Manis gigantea</i>	scales	kg	VN Viet Nam									70	70
<i>Manis gigantea</i>	scales		TH Thailand								20	45	
<i>Manis gigantea</i>	skins		MX Mexico										235
<i>Manis gigantea</i>	skins		TH Thailand								10		
<i>Manis gigantea</i>	skins		US United States										225
<i>Manis javanica</i>	garments		US United States										1
<i>Manis javanica</i>	leather products (small)		SG Singapore							1			
<i>Manis javanica</i>	scales	g	US United States	2045									
<i>Manis javanica</i>	scales	kg	CN China						1000	1000		800	
<i>Manis pentadactyla</i>	claws		QA Qatar										1
<i>Manis pentadactyla</i>	derivatives		US United States						10				

Taxon	Term	Unit	Country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<i>Manis pentadactyla</i>	live		JP Japan									2	
<i>Manis pentadactyla</i>	medicine		US United States									10	
<i>Manis pentadactyla</i>	scales		US United States							12			
<i>Manis pentadactyla</i>	skins		MX Mexico							1000			
<i>Manis spp.</i>	bodies		US United States		1							1	
<i>Manis spp.</i>	derivatives		NZ New Zealand							5			
<i>Manis spp.</i>	derivatives		US United States			24	281	324	87	477	45		
<i>Manis spp.</i>	leather products (large)		US United States					2					
<i>Manis spp.</i>	leather products (small)		US United States								1		6
<i>Manis spp.</i>	medicine		US United States									30	
<i>Manis spp.</i>	scales	kg	CN China							500			
<i>Manis spp.</i>	scales	kg	US United States						0.13				
<i>Manis spp.</i>	scales		US United States						50				
<i>Manis spp.</i>	skin pieces		US United States										1
<i>Manis spp.</i>	skins		US United States		1					1	50		
<i>Manis temminckii</i>	bodies		US United States		1								
<i>Manis temminckii</i>	live		IT Italy	10									
<i>Manis tetradactyla</i>	live		ES Spain									5	
<i>Manis tetradactyla</i>	live		JP Japan									3	
<i>Manis tetradactyla</i>	live		NL Netherlands				1						
<i>Manis tetradactyla</i>	live		US United States	3									
<i>Manis tetradactyla</i>	skeletons		US United States				10						
<i>Manis tetradactyla</i>	skins		FR France								2		
<i>Manis tetradactyla</i>	skulls		US United States				14						
<i>Manis tricuspis</i>	carvings		US United States		1								
<i>Manis tricuspis</i>	live		AE United Arab Emirates							2	2		
<i>Manis tricuspis</i>	live		CZ Czech Republic				10						
<i>Manis tricuspis</i>	live		ES Spain									5	
<i>Manis tricuspis</i>	live		IT Italy				15	500					
<i>Manis tricuspis</i>	live		JP Japan						4		12	3	
<i>Manis tricuspis</i>	live		LA Lao PDR									250	

Taxon	Term	Unit	Country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<i>Manis tricuspis</i>	live		NL Netherlands				1						
<i>Manis tricuspis</i>	live		TO Tonga					20					
<i>Manis tricuspis</i>	live		US United States				10						
<i>Manis tricuspis</i>	live		VN Viet Nam									200	
<i>Manis tricuspis</i>	scales	kg	HK Hong Kong										60
<i>Manis tricuspis</i>	skin pieces		US United States								50		
<i>Manis tricuspis</i>	skins		FR France								6		
<i>Manis tricuspis</i>	skins		MX Mexico										100
<i>Manis tricuspis</i>	skins		TH Thailand								250		
<i>Manis tricuspis</i>	skins		US United States								50		

Source: UNEP-WCMC CITES Trade Database searched on 22 April 2015 for *Manis* spp., using commercial purposes, all sources, all trade terms.

Table 2a: Gross Exports for Personal Purposes

Taxon	Term	Unit	Country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<i>Manis gigantea</i>	derivatives	g	CN							175			
<i>Manis javanica</i>	derivatives		TH							2			
<i>Manis javanica</i>	skins		LA			1							
<i>Manis javanica</i>	skins		TH				1						
<i>Manis pentadactyla</i>	derivatives	g	CN							10			
<i>Manis pentadactyla</i>	derivatives	g	VN				80			600			
<i>Manis pentadactyla</i>	derivatives	kg	VN							1			
<i>Manis pentadactyla</i>	derivatives		CN				48	180					
<i>Manis pentadactyla</i>	derivatives		ID							1			
<i>Manis pentadactyla</i>	derivatives		LA					480		40			
<i>Manis pentadactyla</i>	derivatives		VN					18313	5140				
<i>Manis pentadactyla</i>	medicine	g	VN									1466	
<i>Manis pentadactyla</i>	medicine		VN									191	
<i>Manis pentadactyla</i>	scales	kg	VN					0.409					
<i>Manis pentadactyla</i>	skins		VN	2									
<i>Manis</i> spp.	bodies	kg	CM				2						
<i>Manis</i> spp.	bodies		CM			1				3			
<i>Manis</i> spp.	bodies		GH				1						

Taxon	Term	Unit	Country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<i>Manis spp.</i>	bodies		LA							1			
<i>Manis spp.</i>	bodies		NG				1						
<i>Manis spp.</i>	claws		LA						1				
<i>Manis spp.</i>	derivatives	g	CN					60					
<i>Manis spp.</i>	derivatives	kg	CN						2				
<i>Manis spp.</i>	derivatives		CA							1			
<i>Manis spp.</i>	derivatives		CN				98	114	250	1228	55		
<i>Manis spp.</i>	derivatives		DE				3			2			
<i>Manis spp.</i>	derivatives		HK					52					
<i>Manis spp.</i>	derivatives		MY		5								
<i>Manis spp.</i>	derivatives		VN				24	15	141	8			
<i>Manis spp.</i>	derivatives		XX					24					
<i>Manis spp.</i>	leather products (large)		MX			2							
<i>Manis spp.</i>	leather products (small)		MX		3		3		3	12	12	4	
<i>Manis spp.</i>	leather products (small)		MY		1								
<i>Manis spp.</i>	leather products (small)		XX		2		1						
<i>Manis spp.</i>	meat	g	CI							428			
<i>Manis spp.</i>	meat	g	LA		65								
<i>Manis spp.</i>	meat	kg	GH					2.454					
<i>Manis spp.</i>	meat		LR						4				
<i>Manis spp.</i>	medicine		CA								1		
<i>Manis spp.</i>	medicine		CN								57	13	
<i>Manis spp.</i>	medicine		VN								53	153	
<i>Manis spp.</i>	powder	g	CN						14				
<i>Manis spp.</i>	scales	g	CN								454		
<i>Manis spp.</i>	scales	g	HK									737	
<i>Manis spp.</i>	scales	g	LA				23						
<i>Manis spp.</i>	scales	g	TH							140		25	
<i>Manis spp.</i>	scales	kg	TH			0.296							
<i>Manis spp.</i>	scales		BR					1					
<i>Manis spp.</i>	scales		CN							1	225	155	
<i>Manis spp.</i>	scales		LA					8			16		

Taxon	Term	Unit	Country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<i>Manis spp.</i>	scales		TH		5						1	6	
<i>Manis spp.</i>	scales		ZA								1		
<i>Manis spp.</i>	shoes		MX		6	8	12						
<i>Manis spp.</i>	shoes		XX			18	8	2					
<i>Manis spp.</i>	skin pieces		LA										5
<i>Manis spp.</i>	skin pieces		MX			1							
<i>Manis spp.</i>	skin pieces		TH		9								
<i>Manis spp.</i>	skin pieces		TW		15								
<i>Manis spp.</i>	tails		LA			1		1		1			
<i>Manis spp.</i>	unspecified	g	LA		62	38							
<i>Manis spp.</i>	unspecified		LA							1			
<i>Manis temminckii</i>	bodies		ZA						1	1			
<i>Manis temminckii</i>	carvings		GB	1									
<i>Manis temminckii</i>	leather products (small)		ZA					1					
<i>Manis temminckii</i>	live		CD		1								
<i>Manis tricuspis</i>	skins		CG								1		
<i>Manis tricuspis</i>	trophies		CM					2					

Source: UNEP-WCMC CITES Trade Database searched on 22 April 2015 for *Manis* spp., using personal purposes, all sources, all trade terms.

Table 2b: Gross Imports for Personal Purposes

Taxon	Term	Unit	Country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<i>Manis gigantea</i>	derivatives	g	NZ							175			
<i>Manis javanica</i>	derivatives		US								2		
<i>Manis javanica</i>	skins		US			1	1						
<i>Manis pentadactyla</i>	derivatives	g	US					80		610			
<i>Manis pentadactyla</i>	derivatives	kg	US							1			
<i>Manis pentadactyla</i>	derivatives		US					48	18973	5141	40		
<i>Manis pentadactyla</i>	medicine	g	US									1466	
<i>Manis pentadactyla</i>	medicine		US									191	
<i>Manis pentadactyla</i>	scales	kg	US						0.409				
<i>Manis pentadactyla</i>	skins		US	2									
<i>Manis spp.</i>	bodies	kg	US				2						

Taxon	Term	Unit	Country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<i>Manis spp.</i>	bodies		US			1	1	1		3	1		
<i>Manis spp.</i>	claws		US							1			
<i>Manis spp.</i>	derivatives	g	NZ						60				
<i>Manis spp.</i>	derivatives	kg	US							2			
<i>Manis spp.</i>	derivatives		NZ				10	90		1184			
<i>Manis spp.</i>	derivatives		US			5	88	51	341	185	66		
<i>Manis spp.</i>	leather products (large)		US				2						
<i>Manis spp.</i>	leather products (small)		US		3	3	3	1	3	12	12	4	
<i>Manis spp.</i>	meat	g	US		65						428		
<i>Manis spp.</i>	meat	kg	US						2.454				
<i>Manis spp.</i>	meat		US							4			
<i>Manis spp.</i>	medicine		US									111	166
<i>Manis spp.</i>	powder	g	NZ							14			
<i>Manis spp.</i>	scales	g	US					23			140	454	762
<i>Manis spp.</i>	scales	kg	US			0.296							
<i>Manis spp.</i>	scales		NZ						1				
<i>Manis spp.</i>	scales		US		5				8		3	247	155
<i>Manis spp.</i>	shoes		US		6	26	20	2					
<i>Manis spp.</i>	skin pieces		US		24	1							5
<i>Manis spp.</i>	tails		US			1		1		1			
<i>Manis spp.</i>	unspecified	g	US		62	38							
<i>Manis spp.</i>	unspecified		US							1			
<i>Manis temminckii</i>	bodies		NZ						1	1			
<i>Manis temminckii</i>	carvings		AU	1									
<i>Manis temminckii</i>	leather products (small)		NZ					1					
<i>Manis temminckii</i>	live		US		1								
<i>Manis tricuspis</i>	skins		US								1		
<i>Manis tricuspis</i>	trophies		FR					2					

Source: UNEP-WCMC CITES Trade Database searched on 22 April 2015 for *Manis* spp., using personal purposes, all sources, all trade terms.

Table 3a: Gross Exports Where the Source is Confiscation / Seizure

Taxon	Term	Unit	Country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
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Taxon	Term	Unit	Country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<i>Manis crassicaudata</i>	specimens		LK				1						
<i>Manis gigantea</i>	derivatives	g	CN						175				
<i>Manis gigantea</i>	scales	kg	GA									0.14	
<i>Manis javanica</i>	derivatives		TH							2			
<i>Manis javanica</i>	live		MY									11	
<i>Manis javanica</i>	scales	g	CN	2045									
<i>Manis javanica</i>	skins		LA		1								
<i>Manis javanica</i>	skins		TH			1							
<i>Manis javanica</i>	specimens	flasks	SG	9									
<i>Manis javanica</i>	specimens	ml	MY									0.30	
<i>Manis javanica</i>	specimens		MY									11	
<i>Manis javanica</i>	specimens		SG	9									
<i>Manis pentadactyla</i>	derivatives	g	CN						10				
<i>Manis pentadactyla</i>	derivatives	g	VN				80		600				
<i>Manis pentadactyla</i>	derivatives	kg	VN						1				
<i>Manis pentadactyla</i>	derivatives		CN				48	180					
<i>Manis pentadactyla</i>	derivatives		ID						1				
<i>Manis pentadactyla</i>	derivatives		LA					480		40			
<i>Manis pentadactyla</i>	derivatives		VN					18323	5140				
<i>Manis pentadactyla</i>	live		TW								2		
<i>Manis pentadactyla</i>	medicine	g	VN									1466	
<i>Manis pentadactyla</i>	medicine		VN									201	
<i>Manis pentadactyla</i>	scales	kg	VN						0.409				
<i>Manis pentadactyla</i>	scales		CN						12				
<i>Manis spp.</i>	bodies	kg	CM			2							
<i>Manis spp.</i>	bodies		CM		1				3				
<i>Manis spp.</i>	bodies		GH			1							
<i>Manis spp.</i>	bodies		GQ								1		
<i>Manis spp.</i>	bodies		LA							1			
<i>Manis spp.</i>	bodies		NG				1						
<i>Manis spp.</i>	bodies		NZ									1.00	
<i>Manis spp.</i>	claws		LA						1				

Taxon	Term	Unit	Country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<i>Manis spp.</i>	derivatives	g	CN						60				
<i>Manis spp.</i>	derivatives	kg	CN						2				
<i>Manis spp.</i>	derivatives		CA							1			
<i>Manis spp.</i>	derivatives		CN				379	318	338	1698	100		
<i>Manis spp.</i>	derivatives		DE					3		2			
<i>Manis spp.</i>	derivatives		HK						52				
<i>Manis spp.</i>	derivatives		VN					144	15	153	8		
<i>Manis spp.</i>	derivatives		XX						24				
<i>Manis spp.</i>	leather products (large)		MX				2						
<i>Manis spp.</i>	leather products (large)		PH					2					
<i>Manis spp.</i>	leather products (small)		AE									6	
<i>Manis spp.</i>	leather products (small)		CM							1			
<i>Manis spp.</i>	leather products (small)		MX				3		3	12	12	4	
<i>Manis spp.</i>	leather products (small)		XX			2		1					
<i>Manis spp.</i>	meat	g	CI								428		
<i>Manis spp.</i>	meat	kg	GH						2.454				
<i>Manis spp.</i>	meat		LR						4				
<i>Manis spp.</i>	medicine		CA								1		
<i>Manis spp.</i>	medicine		CN									87	13
<i>Manis spp.</i>	medicine		VN									53	153
<i>Manis spp.</i>	powder	g	CN							14			
<i>Manis spp.</i>	scales	g	CN									454	
<i>Manis spp.</i>	scales	g	HK										737
<i>Manis spp.</i>	scales	g	LA					23					
<i>Manis spp.</i>	scales	g	NZ					12.2					
<i>Manis spp.</i>	scales	g	TH								140		25
<i>Manis spp.</i>	scales	kg	TH			0.296			0.13				
<i>Manis spp.</i>	scales		BR						1				
<i>Manis spp.</i>	scales		CN							1	225	155	
<i>Manis spp.</i>	scales		LA						8			16	
<i>Manis spp.</i>	scales		TH		5					1	6		
<i>Manis spp.</i>	scales		UG						50				

Taxon	Term	Unit	Country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<i>Manis spp.</i>	scales		XX	2655									
<i>Manis spp.</i>	scales		ZA							1			
<i>Manis spp.</i>	shoes		MX			6	12						
<i>Manis spp.</i>	shoes		XX			18	8	2					
<i>Manis spp.</i>	skin pieces		CA									1	
<i>Manis spp.</i>	skin pieces		LA									5	
<i>Manis spp.</i>	skin pieces		MX			1							
<i>Manis spp.</i>	skin pieces		TH		9								
<i>Manis spp.</i>	skin pieces		TW		15								
<i>Manis spp.</i>	skins		CH				2						
<i>Manis spp.</i>	skins		CI						1				
<i>Manis spp.</i>	skins		KW				2						
<i>Manis spp.</i>	skins		PH		1								
<i>Manis spp.</i>	skins		TH							50			
<i>Manis spp.</i>	specimens		HK			100							
<i>Manis spp.</i>	tails		LA			1	1		1				
<i>Manis spp.</i>	unspecified	g	LA	24	62	38							
<i>Manis spp.</i>	unspecified		LA						1				
<i>Manis tetradactyla</i>	skeletons		CM				10						
<i>Manis tetradactyla</i>	skulls		CM				4						
<i>Manis tricuspis</i>	live		CM				10						
<i>Manis tricuspis</i>	skins		CG							1			
<i>Manis tricuspis</i>	skins		TH							50			
<i>Manis tricuspis</i>	trophies		LR									1	

Source: UNEP-WCMC CITES Trade Database searched on 22 April 2015 for *Manis* spp., using all purposes, confiscation/seizure sources, all trade terms.

Table 3b: Gross Imports Where the Source is Confiscation / Seizure

Taxon	Term	Unit	Country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<i>Manis crassicaudata</i>	specimens		US					1					
<i>Manis gigantea</i>	derivatives	g	NZ							175			
<i>Manis gigantea</i>	scales	kg	GB									0.14	
<i>Manis javanica</i>	derivatives		US							2			

Taxon	Term	Unit	Country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<i>Manis javanica</i>	live		HK										11
<i>Manis javanica</i>	scales	g	US	2045									
<i>Manis javanica</i>	skins		US			1	1						
<i>Manis javanica</i>	specimens	flasks	US	9									
<i>Manis javanica</i>	specimens	ml	GB										0.30
<i>Manis javanica</i>	specimens		HK										11
<i>Manis javanica</i>	specimens		US	9									
<i>Manis pentadactyla</i>	derivatives	g	US					80		610			
<i>Manis pentadactyla</i>	derivatives	kg	US							1			
<i>Manis pentadactyla</i>	derivatives		US					48	18983	514140			
<i>Manis pentadactyla</i>	live		JP									2	
<i>Manis pentadactyla</i>	medicine	g	US									1466	
<i>Manis pentadactyla</i>	medicine		US									201	
<i>Manis pentadactyla</i>	scales	kg	US						0.409				
<i>Manis pentadactyla</i>	scales		US							12			
<i>Manis spp.</i>	bodies	kg	US				2						
<i>Manis spp.</i>	bodies		FJ										1.00
<i>Manis spp.</i>	bodies		US			1	1	1		3	1	1	
<i>Manis spp.</i>	claws		US							1			
<i>Manis spp.</i>	derivatives	g	NZ						60				
<i>Manis spp.</i>	derivatives	kg	US							2			
<i>Manis spp.</i>	derivatives		NO						1				
<i>Manis spp.</i>	derivatives		NZ				10	90		1189			
<i>Manis spp.</i>	derivatives		US				369	375	428	662	111		
<i>Manis spp.</i>	leather products (large)		US				2	2					
<i>Manis spp.</i>	leather products (small)		US			2	3	1	3	12	13	4	6
<i>Manis spp.</i>	meat	g	US								428		
<i>Manis spp.</i>	meat	kg	US						2.454				
<i>Manis spp.</i>	meat		US							4			
<i>Manis spp.</i>	medicine		US									141	166
<i>Manis spp.</i>	powder	g	NZ							14			
<i>Manis spp.</i>	scales	g	AU					12.2					

Taxon	Term	Unit	Country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<i>Manis spp.</i>	scales	g	US					23			140	454	762
<i>Manis spp.</i>	scales	kg	US			0.296			0.13				
<i>Manis spp.</i>	scales		ID	2655									
<i>Manis spp.</i>	scales		NZ						1				
<i>Manis spp.</i>	scales		US		5				58		3	247	155
<i>Manis spp.</i>	shoes		US			24	20	2					
<i>Manis spp.</i>	skin pieces		US		24	1							6
<i>Manis spp.</i>	skins		CH					2					
<i>Manis spp.</i>	skins		KW					2					
<i>Manis spp.</i>	skins		US		1					1	50		
<i>Manis spp.</i>	specimens		US			100							
<i>Manis spp.</i>	tails		US			1		1		1			
<i>Manis spp.</i>	unspecified	g	US	24	62	38							
<i>Manis spp.</i>	unspecified		US							1			
<i>Manis tetradactyla</i>	skeletons		US				10						
<i>Manis tetradactyla</i>	skulls		US				4						
<i>Manis tricuspis</i>	live		US				10						
<i>Manis tricuspis</i>	skins		US								51		
<i>Manis tricuspis</i>	trophies		US										1

Source: UNEP-WCMC CITES Trade Database searched on 22 April 2015 for *Manis* spp., using all purposes, confiscation/seizure sources, all trade terms.

Table 4a: Gross Exports Where the Source is Confiscation / Seizure and the Purpose is Commercial

Taxon	Term	Unit	Country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<i>Manis javanica</i>	scales	g	CN	2045									
<i>Manis pentadactyla</i>	derivatives		VN						10				
<i>Manis pentadactyla</i>	live		TW									2	
<i>Manis pentadactyla</i>	medicine		VN									10	
<i>Manis pentadactyla</i>	scales		CN							12			
<i>Manis spp.</i>	bodies		GQ									1	
<i>Manis spp.</i>	derivatives		CN				281	204	87	470	45		
<i>Manis spp.</i>	derivatives		VN					120		12			
<i>Manis spp.</i>	leather products (large)		PH					2					

Taxon	Term	Unit	Country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<i>Manis spp.</i>	leather products (small)		AE										6
<i>Manis spp.</i>	leather products (small)		CM							1			
<i>Manis spp.</i>	medicine		CN									30	
<i>Manis spp.</i>	scales	kg	TH					0.13					
<i>Manis spp.</i>	scales		UG					50					
<i>Manis spp.</i>	skin pieces		CA										1
<i>Manis spp.</i>	skins		CI						1				
<i>Manis spp.</i>	skins		PH		1								
<i>Manis spp.</i>	skins		TH							50			
<i>Manis tetradactyla</i>	skeletons		CM				10						
<i>Manis tetradactyla</i>	skulls		CM				4						
<i>Manis tricuspis</i>	live		CM				10						
<i>Manis tricuspis</i>	skins		TH							50			

Source: UNEP-WCMC CITES Trade Database searched on 22 April 2015 for *Manis* spp., using commercial purposes, confiscation/seizure sources, all trade terms.

Table 4b: Gross Imports Where the Source is Confiscation / Seizure and the Purpose is Commercial

Taxon	Term	Unit	Country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<i>Manis javanica</i>	scales	g	US	2045									
<i>Manis pentadactyla</i>	derivatives		US					10					
<i>Manis pentadactyla</i>	live		JP								2		
<i>Manis pentadactyla</i>	medicine		US									10	
<i>Manis pentadactyla</i>	scales		US						12				
<i>Manis spp.</i>	bodies		US									1	
<i>Manis spp.</i>	derivatives		NZ						5				
<i>Manis spp.</i>	derivatives		US				281	324	87	477	45		
<i>Manis spp.</i>	leather products (large)		US				2						
<i>Manis spp.</i>	leather products (small)		US							1			6
<i>Manis spp.</i>	medicine		US									30	
<i>Manis spp.</i>	scales	kg	US					0.13					
<i>Manis spp.</i>	scales		US					50					
<i>Manis spp.</i>	skin pieces		US										1
<i>Manis spp.</i>	skins		US		1				1	50			

Taxon	Term	Unit	Country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<i>Manis tetradactyla</i>	skeletons		US				10						
<i>Manis tetradactyla</i>	skulls		US				4						
<i>Manis tricuspis</i>	live		US				10						
<i>Manis tricuspis</i>	skins		US							50			

Source: UNEP-WCMC CITES Trade Database searched on 22 April 2015 for *Manis* spp., using commercial purposes, confiscation/seizure sources, all trade terms.

Reports of Illegal Trade, Confiscations, and Seizures Related to International Trade, 2006-2015

Date of Seizure (Month, Year)	Location	Manis Species	Details of Incident	Source
January, 2006	Indonesia	Unidentified	33 live pangolins were seized, destination unknown.	TRAFFIC, 2008, http://www.trafficj.org/publication/09_proceedings_pangolin.pdf
September, 2006	Indonesia	Unidentified	100 live pangolins, 500 dead pangolins, and 86 kg of scales were seized, destined for Hong Kong.	TRAFFIC, 2008, http://www.trafficj.org/publication/09_proceedings_pangolin.pdf
November, 2006	Indonesia	Unidentified	200 live pangolins were seized, destined for China.	TRAFFIC, 2008, http://www.trafficj.org/publication/09_proceedings_pangolin.pdf
November, 2006	Indonesia	Unidentified	200 dead pangolins were seized, destined for China.	TRAFFIC, 2008, http://www.trafficj.org/publication/09_proceedings_pangolin.pdf
2006	Thailand	Unidentified	180 live pangolins were seized, destined for Thailand via Malaysia.	TRAFFIC, 2008, http://www.trafficj.org/publication/09_proceedings_pangolin.pdf
May, 2007	Indonesia	Unidentified	40 live pangolins were seized, destined for Malaysia.	TRAFFIC, 2008, http://www.trafficj.org/publication/09_proceedings_pangolin.pdf
May, 2007	China	Unidentified	31 pangolins were seized from a deserted boat drifting near the coast of China.	The Guardian, 25 May, 2007, http://www.theguardian.com/environment/2007/may/26/china.conservation
2007	Malaysia	Unidentified	168 live pangolins were seized, destined for China.	TRAFFIC, 2008, http://www.trafficj.org/publication/09_proceedings_pangolin.pdf
January, 2008	Indonesia	Unidentified	Live pangolins were seized from three collectors, who were trafficking about 2,250 pangolins per month.	TRAFFIC, 2008, http://www.trafficj.org/publication/09_proceedings_pangolin.pdf
February, 2008	Indonesia	Unidentified	256 live pangolins were seized, destination unknown.	TRAFFIC, 2008, http://www.trafficj.org/publication/09_proceedings_pangolin.pdf

March, 2008	Indonesia	Unidentified	41 pangolin carcasses were seized, destination unknown.	TRAFFIC, 2008, http://www.trafficj.org/publication/09_proceedings_pangolin.pdf
March, 2008	Indonesia	Unidentified	10 live pangolins and 20 carcasses were seized, destination unknown.	TRAFFIC, 2008, http://www.trafficj.org/publication/09_proceedings_pangolin.pdf
April, 2008	Indonesia	Unidentified	9 live pangolins and 9 dead pangolins were seized, destination unknown.	TRAFFIC, 2008, http://www.trafficj.org/publication/09_proceedings_pangolin.pdf
2008	Viet Nam	Unidentified	23 tonnes of frozen carcasses were seized by Customs, destined for China.	TRAFFIC, 2008, http://www.traffic.org/home/2010/10/28/seized-notebooks-give-unique-insight-into-scale-of-illicit-p.html
June, 2010	China	Unidentified	2,090 frozen pangolin and 92 cases of scales (nearly 8 tonnes of pangolins and pangolin scales) were seized from a fishing vessel in Guangdong.	The Guardian, 13 July, 2010, http://www.theguardian.com/environment/2010/jul/13/china-customs-pangolin
July, 2012	Uganda	Unidentified	115 kg of pangolin scales were seized, headed to China.	TRAFFIC, Challender & Hywood, 2012
April, 2013	Philippines	Unidentified	A Chinese vessel caught in the Philippines contained 400 boxes of frozen pangolin meat (over 10,000 kg).	The Guardian, 15 April, 2013, http://www.theguardian.com/environment/2013/apr/15/chinese-vessel-philippine-reef-illegal-pangolin-meat
August, 2013	Nepal	<i>Manis pentadactyla</i>	Police arrested a man with Chinese pangolin scales from a pangolin he had killed and stashed in his backyard. 300 grams of scales were confiscated.	The Himalayan Times, 8 August 2013, http://www.thehimalayantimes.com/fullNews.php?headline=Lamatar+local+held+with+pangolin+scales&NewsID=387314
August, 2013	India	Unidentified	A pangolin scale export racket was busted, and 25 kilograms of pangolin scales were seized.	Deccan Herald, 12 August, 2013, http://www.deccanherald.com/content/350755/pangolin-shell-export-racket-busted.html
August, 2013	Viet Nam	Unidentified	6.2 tonnes of pangolins were seized by Customs officials from a 40-foot cargo container arriving from Indonesia	Annamiticus, 13 August, 2013, http://annamiticus.com/2013/08/13/over-6-tons-of-pangolins-seized-in-

				vietnam-port/
August, 2013	India	Unidentified	A suspect was arrested with an undisclosed amount of pangolin scales.	Annamiticus, 2 September, 2013, http://annamiticus.com/2013/09/02/102-live-pangolins-confiscated-in-thailand-pangolin-scales-seized-in-india/
September, 2013	Thailand	Unidentified	200 live pangolins were seized by the Thai police in two pick-up trucks in the province of UdonThani. The animals were destined for China and Vietnam, via Laos. They were thought to have been captured in a nearby Thai national park.	Asia One, 17 September 2013, http://news.asiaone.com/news/asia/thai-police-seize-nearly-200-pangolins
October, 2013	Uganda	Unidentified	Two Chinese nationals were caught at Entebbe International Airport with one and a half cups of pangolin scales stuffed in their socks. The two men were headed for China.	New Vision, 1 October, 2013, http://www.newvision.co.ug/news/647817-police-holds-suspected-chinese-traffickers.html
October, 2013	Zimbabwe	Unidentified	A pangolin was seized from a Zimbabwean man, who was trying to take the pangolin to President Mugabe. The animal was wounded and suspected to have been abused.	Nehanda Radio, 7 October, 2013, http://nehandaradio.com/2013/10/07/i-want-my-pangolin-back-man-tells-cops/
2013	Viet Nam	Unidentified	2,364 pangolins were seized in Viet Nam during the months of August through October of 2013.	Annamiticus, 24 October, 2013, http://annamiticus.com/2013/10/24/pangolin-trafficking-2011-to-october-2013-infographic/
January, 2014	Nepal	Unidentified	Police arrested a woman trying to smuggle 14 kg of pangolin scales across the border to Tibet. The woman claimed to have obtained the scales in Dhankuta, and that this was not her first time.	SuaraAlam, 20 June, 2014, http://www.suara-alam.com/en/international/2014/06/20/pangolin-trafficking-watch-first-half-2014#.VLWOZsaRPzI
January, 2014	India	Unidentified	Two kilograms of pangolin scales were seized in the town of Dandeli, and two suspects were arrested.	SuaraAlam, 20 June, 2014, http://www.suara-alam.com/en/international/2014/06/20/pangolin-trafficking-watch-first-half-2014#.VLWOZsaRPzI
January, 2014	China	Unidentified	39 live pangolins were seized by police from a car, and one suspect was taken into	SuaraAlam, 20 June, 2014, http://www.suara-alam.com/en/international/2014/06/20/pangolin-

			custody.	trafficking-watch-first-half-2014#.VLWOZsaRPzl
March, 2014	India	Unidentified	Two individuals were arrested by Assam Rifles at Tengnoupal after a vehicle inspection revealed they were transported pangolin skins.	SuaraAlam, 20 June, 2014, http://www.suara-alam.com/en/international/2014/06/20/pangolin-trafficking-watch-first-half-2014#.VLWOZsaRPzl
March, 2014	Indonesia	Unidentified	73 kg of scales were seized by the Central Kalimantan Conservation and Natural Resources Authority (BKSDA) being mailed to a fake address in Jakarta from an unknown sender.	SuaraAlam, 20 June, 2014, http://www.suara-alam.com/en/international/2014/06/20/pangolin-trafficking-watch-first-half-2014#.VLWOZsaRPzl
March, 2014	India	Unidentified	18.3 kg of pangolin scales were seized and two smugglers were apprehended by Assam Rifles.	SuaraAlam, 20 June, 2014, http://www.suara-alam.com/en/international/2014/06/20/pangolin-trafficking-watch-first-half-2014#.VLWOZsaRPzl
March, 2014	Viet Nam	Unidentified	52 live pangolins were seized by Provincial Police from the back of a pickup truck on March 28, 2014.	SuaraAlam, 20 June, 2014, http://www.suara-alam.com/en/international/2014/06/20/pangolin-trafficking-watch-first-half-2014#.VLWOZsaRPzl
March, 2014	Pakistan	Unidentified	145 kg of pangolin scales were seized by Pakistan customs officials at Benazir Bhutto International Airport in Islamabad, from two Chinese nationals.	SuaraAlam, 20 June, 2014, http://www.suara-alam.com/en/international/2014/06/20/pangolin-trafficking-watch-first-half-2014#.VLWOZsaRPzl
April, 2014	Viet Nam	Unidentified	One pangolin was seized by Environmental Police during the inspection of a cage on the back of a motorbike.	SuaraAlam, 20 June, 2014, http://www.suara-alam.com/en/international/2014/06/20/pangolin-trafficking-watch-first-half-2014#.VLWOZsaRPzl
May, 2014	Indonesia	Unidentified	Police in Medan arrested two men smuggling four pangolins.	SuaraAlam, 20 June, 2014, http://www.suara-alam.com/en/international/2014/06/20/pangolin-trafficking-watch-first-half-2014#.VLWOZsaRPzl
May, 2014	China	Unidentified	Border police in Zhuhai seized a shipment of 956 frozen pangolin bodies in 189 boxes, weighing a total of 4 tonnes.	China Daily, 8 May, 2014, http://usa.chinadaily.com.cn/opinion/2014-10/08/content_18703183.htm
May, 2014	Thailand	Unidentified	Thai police seized 130 live pangolins on May 16, 2014 from a warehouse in the	SuaraAlam, 20 June, 2014, http://www.suara-alam.com/en/international

			LatLumKaeo district of PathumThani Province. Three suspects were arrested. The suspects claimed they had done this several times.	/2014/06/20/pangolin-trafficking-watch-first-half-2014#.VLWOZsaRPzl
May, 2014	Viet Nam	Unidentified	Police in MongCai seized 21 pangolins. Most of the animals were still alive.	SuaraAlam, 20 June, 2014, http://www.suara-alam.com/en/international/2014/06/20/pangolin-trafficking-watch-first-half-2014#.VLWOZsaRPzl
May, 2014	Hong Kong	Unidentified	Customs authorities seized over one tonne of pangolin scales from a shipping container arriving from Kenya on May 28.	SuaraAlam, 20 June, 2014, http://www.suara-alam.com/en/international/2014/06/20/pangolin-trafficking-watch-first-half-2014#.VLWOZsaRPzl
May, 2014	Indonesia	Unidentified	35 pangolins were seized and two suspects arrested at a roadblock in Riau. The suspects were headed to Medan.	SuaraAlam, 20 June, 2014, http://www.suara-alam.com/en/international/2014/06/20/pangolin-trafficking-watch-first-half-2014#.VLWOZsaRPzl
May, 2014	Hong Kong	Unidentified	14 bags containing one tonne of scales were seized from a shipment in Hong Kong, arriving from Uganda via Kenya and Malaysia.	SCMP, 16 June 2014, http://www.scmp.com/news/hong-kong/article/1534140/pangolin-scales-worth-hk17m-found-hidden-shipments-africa
June, 2014	Hong Kong	Unidentified	2.34 tonnes of scales in 115 bags were seized from a timber shipment, arriving from Cameroon, that was selected for inspection.	SCMP, 16 June 2014, http://www.scmp.com/news/hong-kong/article/1534140/pangolin-scales-worth-hk17m-found-hidden-shipments-africa
July, 2014	Viet Nam	Unidentified	1.4 tonnes of pangolin scales were seized from cargo ship arriving from Sierra Leone.	ThanhNien News, 25 July, 2014, http://www.thanhniennews.com/society/big-haul-of-pangolin-scales-seized-in-vietnams-port-29089.html
July, 2014	Viet Nam	Unidentified	Police in Viet Nam seized 350 kg live pangolins destined for China.	http://www.thanhniennews.com/society/vietnam-police-seize-350-kilo-of-pangolins-bound-for-china-27935.html
September, 2014	China	Unidentified	457 dead pangolins were found in 4 refrigerators by Guangdong police.	Asia One, 13 September, 2014, http://news.asiaone.com/news/asia/457-dead-pangolins-found-4-

				fridges-china
December, 2014	Malaysia	Unidentified	100 kg of pangolin scales and parts were seized by Customs officers at their checkpoint at Pending Postal Centre. The 11 boxes of pangolin derivatives were destined for Peninsular Malaysia and Sabah. The consignments were declared as tropical fruits.	The Borneo Post, 14 December, 2014, http://www.theborneopost.com/2014/12/24/rm50000-in-pangolin-scales-parts-destroyed/
January, 2015	India	Unidentified	4 kg of pangolin meat was seized from a house by a forest team of Rajaji National Park on 3 January, 2015.	Times of India, 4 January, 2015, http://timesofindia.indiatimes.com/city/dehradun/Rampant-poaching-of-Pangolins-in-RNP-goes-unchecked/articleshow/45752889.cms
January, 2015	India	Unidentified	7.5 kg of scales were seized from a poacher by the Special Task Force, police, and forest staff. The scales were destined for an animal parts dealer in Nepal.	Times of India, 4 January, 2015, http://timesofindia.indiatimes.com/city/dehradun/Rampant-poaching-of-Pangolins-in-RNP-goes-unchecked/articleshow/45752889.cms
January 2015	Uganda	Unidentified	2 tonnes of skins/scales, found at Entebbe airport, Uganda, destined for the Netherlands, were seized.	http://www.therakyatpost.com/world/2015/01/26/700kg-ivory-2-tonnes-pangolin-skins-seized-ugandas-airport/
March, 2015	Hong Kong	Unidentified	2 tonnes of scales seized by Customs from a shipping container from Nigeria.	http://www.news24.com/Green/News/Two-tons-of-rare-pangolin-scales-seized-in-Hong-Kong-bust-20150320
April, 2015	Indonesia	Unidentified	3,000-4,000 frozen pangolins (5 tonnes), 77kg scales, and 96 live animals were seized from a warehouse in Medan, the largest city on the island of Sumatra	http://www.theguardian.com/environment/picture/2015/apr/30/thousands-of-frozen-pangolins-lie-in-a-pit-in-indonesia
May, 2015	China	Unidentified	249 kg scales were seized from suitcases at Pudong International Airport. The person arrested said they were helping a colleague transport and deliver the scales from Nigeria to China. Another 25 kg were seized 10 days later from another person said to be helping the same person.	http://www.shanghaidaily.com/metro/society/Customs-seize-249kg-scales-of-pangolin/shdaily.shtml

July, 2015	Indonesia	Unidentified	1.3 tonnes of frozen pangolins bound for Singapore were seized.	http://jakarta.coconuts.co/2015/07/09/police-surabaya-seize-13-tons-frozen-pangolins-headed-singapore-photos
July, 2015	India	Unidentified	1 kg of scales was seized by the Wildlife Crime Control Bureau.	http://zeenews.india.com/news/eco-news/pangolin-scales-seized-one-held-in-odisha_1629855.html
August, 2015	Viet Nam	Unidentified	4 tonnes of pangolin scales that arrived from Malaysia were seized by Customs in Da Nang.	http://maritime-executive.com/article/da-nang-is-new-conduit-for-ivory-trafficking
September, 2015	Malaysia	Unidentified	97 live pangolins were seized, believed to be <i>en route</i> to Thailand.	http://www.thestar.com.my/News/Nation/2015/09/11/Dept-rescues-97-pangolins-Animals-found-packed-into-bags/
September, 2015	India	Unidentified	Forest officials seized one kilogram of pangolin scales.	http://www.bangaloremirror.com/bangalore/crime/Man-arrested-one-kg-pangolin-scales-seized/articleshow/49081585.cms
September, 2015	China	Unidentified	2,674 pangolin bodies seized on a boat in Jiangmen destined for China	http://www.globaltimes.cn/content/950443.shtml
October, 2015	Malaysia	Unidentified	63 live pangolins seized in Perlis <i>en route</i> to Thailand	http://www.malaysiandigest.com/news/572686-perlis-anti-smuggling-unit-seize-63-pangolins.html
October, 2015	India	Unidentified	1 live pangolin seized in a car in Sreekaryam	http://www.thehindu.com/news/cities/Thiruvananthapuram/six-persons-arrested-with-anteater/article7786795.ece
October, 2015	Lao PDR	<i>Manis javanica</i>	80 live and 1 dead pangolin seized at the checkpoint between Lao PDR and Thailand. Reported as sourced from Indonesia and en route to China.	http://www.wfft.org/wildlife-trade/large-pangolin-rescue-on-thai-lao-border/
November, 2015	Malaysia	Unidentified	46 live pangolins seized in Perhilitan	http://www.freemalaysiatoday.com/category/nation/2015/11/06/46-pangolins-worth-rm70000-seized-in-penang/
November, 2015	Indonesia	<i>Manis javanica</i>	82 live and 9 dead Sunda pangolins seized on a boat at Belawan port destined for	http://www.news24.com/Green/News/indonesian-police-seize-91-

			Malaysia	pangolins-20151111
November, 2015	Zambia	Unidentified	5 live pangolins seized	http://www.znbc.co.zm/?p=25650
November, 2015	China	Unidentified	970 kg of scales seized at Tongzhong Port	http://www.globalpost.com/article/6694510/2015/11/25/pangolin-scales-ivory-smuggled-under-frozen-fish
November, 2015	Vietnam	Unidentified	2,000 kg of scales seized at the Hoanh Mo border gate in QuangNinh province, shipment labeled frozen fish. Reportedly destined for Taiwan	http://www.thanhniennews.com/society/vietnam-seizes-huge-shipment-of-ivory-pangolin-scales-from-taiwan-54108.html
December, 2015	Thailand	Unidentified	587 kg of scales seized at Samui international airport, reportedly sourced from Nigeria	http://www.bangkokpost.com/news/general/799200/b40m-smuggled-ivory-pangolin-scales-seized
December, 2015	Singapore	Unidentified	324 kg of scales seized at Changi Airfreight Centre, in an air shipment destined for Lao PDR, reportedly sourced from Nigeria	http://www.channelnewsasia.com/news/singapore/illegal-ivory-pangolin/2354944.html
December, 2015	Cameroon	Unidentified	214 kg of scales seized at Yaounde-Nsimalen airport	http://en.cihan.com.tr/en/our-wildlife-traffickers-arrested-in-cameroon-1966363.htm
December, 2015	Vietnam	Unidentified	12 live pangolins seized in a house in Binh Duong Province	http://www.thanhniennews.com/society/12-pangolins-rescued-from-illegal-traders-in-southern-vietnam-57564.html