

Transfer of Sunda Pangolin *Manis javanica* and Chinese Pangolin *M. pentadactyla* from Appendix II to Appendix I

Proponent: Viet Nam, Bhutan and United States of America

Note: This document should be read in conjunction with the introduction to the pangolin proposals.

Summary: The Sunda Pangolin *Manis javanica* is widely distributed geographically across mainland and island Southeast Asia; the Chinese Pangolin *M. pentadactyla* is found from the Himalayan foothills into southern China. Both species occur in tropical and subtropical forests, as well as cultivated landscapes including plantations. Both are solitary and typically give birth to one young after a gestation period of approximately six months, possibly on an annual basis. Research suggests that *M. javanica* may breed all year round¹, but *M. pentadactyla* has a discrete breeding season². Generation time is taken as seven years. There is generally a lack of information on population recruitment rates for these species.

Manis javanica

Manis javanica is native to Brunei Darussalam, Cambodia, China (based on a number of museum records)³, Indonesia, People's Democratic Republic of Lao (Lao PDR), Malaysia, Myanmar, Singapore, Thailand and Viet Nam. It is considered to now be extremely rare in the northern part of its range. Populations are generally considered to be declining, much of which is attributed to harvesting. The species occurs in both cultivated and uncultivated habitats; there is little information on relative population densities in different habitat types.

Information on the status of populations of *M. javanica* is scarce. Where declines have been reported they have almost invariably been ascribed to hunting, chiefly for international trade. Little is known of status in Brunei Darussalam although confiscations in the last few years indicate that illegal trade does occur there⁴. In Cambodia, *M. javanica* is present but based on interviews with hunters is understood to be declining. In Indonesia there is very little information on status, but seizures in recent years, sometimes of several thousand animals, indicates that there is intense hunting pressure in the country. In Lao PDR, there have reportedly been huge declines in recent decades. Local communities in the late 1990s reported populations had declined, in some areas to as little as 1% of the level in the 1960s. Interviews with hunters in Peninsular Malaysia indicate the species is declining⁵. Populations appear to be stable in Singapore based on the frequency of sightings⁶. One study in 2005 and 2006 on Palau Tekong, a 25km² island immediately adjacent to mainland Singapore, found pangolins reasonably common there, and estimated an average home range of some 45ha, with some overlap, based on telemetry of three individuals. The species is reported to be increasingly rare in Thailand, but has been detected in a number of national parks in the last decade⁷. In Khlong Nakha Wildlife Sanctuary in Thailand *M. javanica* has been camera-trapped several times in the past 12 months⁸. In interviews conducted with 99 households around this sanctuary, 80% of respondents reported a decrease in the population⁸. In Viet Nam, this species is reported to have declined severely, especially since the opening of export markets in the 1990s.

Manis javanica has historically been exploited for consumptive use of its derivatives across its range, predominantly its meat and scales as a source of protein and for traditional medicine applications respectively. While domestic use continues, in many places this has been substituted for international trade. This species has been subject to significant levels of trade, both legal and illegal.

The majority of trade in pangolins reported in the CITES Trade Database from 1978 to 2000 was reported as *M. javanica* (which at that time included *M. culionensis*) and was predominantly exports of skins for leather production; this trade involved around 11,000 skins per year, of which just under 9000 was of *M. javanica* in its current sense, rather than *M. culionensis*. Reported volumes of scales in trade were much lower (less than 20,000kg in total for 1978 to 2000). It is thought that the volume of illegal trade, predominantly in scales and live animals, taking place at the time probably equalled, if not exceeded, reported trade volumes.

Since 2000, there has been virtually no legal trade in *M. javanica* reported, as there is a zero export quota for wild specimens of this and all other Asian species for commercial purposes. However, large volumes of illicit trade have taken place, involving a minimum estimate of some 17,000 pangolins globally each year⁹. It is believed that a large proportion of this trade involves *M. javanica*.

Manis javanica was classified as Critically Endangered by IUCN (2014).

Manis pentadactyla

Manis pentadactyla is native to Bhutan, China, India, Lao PDR, Myanmar, Nepal, Thailand and Viet Nam. In China the population was estimated at 50,000 to 100,000 animals in 2003. Populations in China are estimated to have declined by 88 to 94% since the 1960s to 2004. It is now very rare in Guangxi and Yunnan Provinces and considered to face a high risk of extinction in Hainan. It is considered rare in Hong Kong (Special Administrative Region). In Taiwan (Province of China) the species has reportedly recovered in some places from historical reductions, with estimated densities in some areas of 12 to 13 adult pangolins per km²¹⁰. There is virtually no information on wild status in India; confiscations suggest the species is under heavy pressure there. Field sightings in Lao PDR are also now extremely rare. The population in Nepal was estimated at approximately 5000 individuals in 2011 and is believed to be in decline. In Viet Nam hunters report that it has declined severely in the past two decades; it is now regarded as extremely rare.

Manis pentadactyla has historically been exploited for consumptive use of its derivatives across its range, predominantly its meat, as a protein source, and its scales for use in traditional medicines. In China, it is estimated that 160,000 animals were harvested annually for these reasons between the 1960s and 1980s¹¹.

Reported volumes of international trade are considerably lower than those for *M. javanica*. Before 2000, when the zero export quota for all Asian pangolin species was established, on average fewer than 1000 individuals were reported in trade each year, mostly skins imported by the USA and Mexico. As with *M. javanica* there is thought to have been a high volume of illegal trade at the time. Since 2000 seizures and records of trade (e.g., from court cases) indicate that a substantial illicit trade has taken place, potentially involving over 4000 individuals per year¹².

This species is classified as Critically Endangered by IUCN (2014).

Although there is generally a lack of quantitative population data for these species, historical declines have been documented in places, and in others available evidence indicates that populations are in serious decline.

Analysis: Both *Manis javanica* and *M. pentadactyla* are widespread species. Information on population status is scarce, but neither is likely to have a small global population. There are reports (some anecdotal) of very severe declines in the past two or three decades in a number of range States of both species, invariably ascribed to exploitation, and one quantitative estimate, for China, of a reduction in the population of *M. pentadactyla* of ca. 90% between 1960s and the early 2000s. China comprises the greater part of the range of *M. pentadactyla*. If this estimate is robust, it would indicate a severe historical decline in the global population of this species. Direct information on the status of *M. javanica* is lacking for large parts of its range, most notably Indonesia. The species is known to be harvested extensively there. Given its low productivity and likely relatively low population density (based on estimates for the closely related *M. culionensis* (see Analyses for Prop. 10) and indications of fairly extensive home range of *M. javanica*) it is possible that this harvest has led to a decline in population within the guidelines for inclusion in Appendix I, that is of 50% or more within three generations (21 years in this case). There are not known to be any major unexploited populations. Both species are affected by trade.

It is possible therefore that both species meet the criteria for inclusion in Appendix I.

Reviewers: C. Shepherd and C. Waterman.

References:

Information not referenced in the Summary section is from the Supporting Statement.

¹ Zhang, F., Wu, SB., Li, Y., Li, Z., Sun, R., Li, S. (2015) Reproductive parameters of the Sunda pangolin, *Manis javanica*. *Folia Zoologica* 64: 129-135.

² Yang, CW., Chen, S., Chang., CY., Lin, MF., Block, E., Lorentsen, R., Chin, JSC. & Dierenfeld, E. (2007) History and dietary husbandry of Pangolins in Captivity. *Zoo Biology* 26: 223-230.

³ Wu, S., Wang, Y. and Feng, Q. (2005) A new record of Mammalia in China - *Manis javanica*. *Acta Zootaxonomica Sinica* 30: 440-443.

⁴ Cheema, S. (2016) *In litt.* to the IUCN/TRAFFIC Analyses Team, Cambridge, UK.

⁵ Chong, J-L. (2016) *In litt.* to the IUCN/TRAFFIC Analyses Team, Cambridge, UK.

⁶ Lee, B. (2016) *In litt.* to the IUCN/TRAFFIC Analyses Team, Cambridge, UK.

⁷ WWF Thailand (2016) *In litt.* to the IUCN/TRAFFIC Analyses Team, Cambridge, UK.

⁸ ZSL (2016) *In litt.* to the IUCN/TRAFFIC Analyses Team, Cambridge, UK.

⁹ IUCN SSC Pangolin Specialist Group (2016) The conservation status, illegal trade and use of pangolins (*Manis* spp.). CITES SC66 Inf. 23. Prepared by the IUCN SSC Pangolin Specialist Group.

¹⁰ Pei, K.J-C. (2016) *In litt.* to the IUCN/TRAFFIC Analyses Team, Cambridge, UK.

¹¹ Zhang, Y. (2008) Conservation and trade control of pangolins in China. In: Pantel, S. & Sun, S-Y. (2008) *Proceedings of the Workshop on Trade and Conservation of Pangolins Native to South and Southeast Asia*. TRAFFIC Southeast Asia, Petaling Jaya, Selangor, Malaysia.

¹² Challender, D.W.S., Harrop, S.R. & MacMillan, D.C. (2015) Understanding markets to conserve trade threatened species in CITES. *Biological Conservation* 187: 249-259.