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Illegal pangolin trade in northernmost Myanmar and its links to India and China

Mingxia Zhang [a,b,*], Ana Gouveia [b], Tao Qin [a,c], Ruichang Quan [a,b,*], Vincent Nijman [d]

[a] Southeast Asia Biodiversity Research Institute, Chinese Academy of Sciences, Yezin, Nay Pyi Taw, Myanmar
[b] Centre for Integrative Conservation, Xishuangbanna Tropical Botanical Garden, Chinese Academy of Sciences, Yunnan, 666303, China
[c] Kunming Institution of Zoology, Chinese Academy of Sciences, Yunnan, 650223, China
[d] Oxford Wildlife Trade Research Group, Oxford Brookes University, UK

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ABSTRACT

The northern Myanmar region has been identified as a potential transit and source place for the illegal trade of pangolins and their scales. In this study, we surveyed the trade links between Kachin State (northern Myanmar) and China and Kachin and India based on interviews, market surveys and online seizure data. From our results we cannot extrapolate that there is a link between Myanmar and India. Based on the results from interviews (17 of 38), we found that around 140–168 pangolins/year are smuggled into China via three different routes from Kachin to China. Scales are the most traded parts of pangolins in this part of Myanmar. Based on the online sources, 30 seizures of pangolin and their products were made on the Kachin–China route during 2010–2016, with all seizures made on the Chinese side of the border. We thus, recommend an increase in law enforcement on the Myanmar side, with focused effort at identifying trade hubs and deterring wholesalers. We further suggest investigating possible trade links between Kachin and other source areas. We recommend, a reclassification of the pangolins' protection status in China from a Class II to a Class I Key Protected Species, and the prohibition of the use of pangolins' scales for Traditional Chinese Medicine.

1. Introduction

Pangolins (genera *Manis*, *Phataginus* and *Smutsia*), a once obscure taxon with limited conservation or conservation policy importance, have become one of the best known examples of the illegal transnational wildlife trade, alongside elephants, tigers and rhinos. The international trade, and to a lesser extent, the domestic trade of pangolins is now recognized as the most significant impediment for their conservation, for both Asian and African species (Bowen-Jones and Pendry, 1999; Chaber et al., 2010; Baillie et al., 2014; Pantel and Chin, 2009; Shepherd, 2009; Nijman, 2015a,b; Heinrich et al., 2016). Pangolins' meat is considered a delicacy and their scales and other body parts are used in the traditional Asian medicine, allegedly, used to cure a range of diseases and supposedly, increases wealth and larger disposable incomes. In both China and Vietnam, these fabled benefits have caused a significant increased exploitation of the species in the last few decades (Challender and Hywood, 2012; Chin and Pantel, 2009). Nijman et al.'s (2016) overview on the pangolin trade in Myanmar

* Corresponding authors at: Centre for Integrative Conservation, Xishuangbanna Tropical Botanical Garden, Chinese Academy of Sciences, Yunnan, 666303, China.
E-mail addresses: zhangmingxia@xtbg.org.cn (M. Zhang), quanrc@xtbg.ac.cn (R. Quan).

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Table 1
International and domestic regulations of pangolins (*Manis* spp.) in Myanmar and China. Key: [1] = CITES (2017), [2] = Win Naing (2008), [3] = NPCSCC (1988).

Source	Protect level	Note
CITES Appendix	CITES I	All commercial international trade banned [1]
The Protection of Wildlife and Protected Areas Law, Myanmar	Protected	License required (killing, hunting/wounding and exporting)[2]
Law of the People's Republic of China on the Protection of Wildlife	Class II	License required (killing, transportation and selling)[3]

indicates that this country is increasingly being used as a gateway for the trade from South Asia into China. Mohapatra et al. (2015) reviewed the illegal trade of pangolin in India, and found that some pangolin's products were smuggled through Northern Myanmar into China. Both the aforementioned studies demonstrate the strong trade links between Myanmar and China.

Two species of pangolin occur in Myanmar, the Sunda pangolin, *Manis javanica,* and the Chinese pangolin, *Manis pentadactyla*, and close to the Indian border possibly the Indian pangolin, *Manis crassicaudata*. Both the Sunda and the Chinese pangolin are listed as Critically Endangered on the IUCN Red List (Challender et al., 2014a,b), while the Indian pangolin is listed as Endangered (Baillie et al., 2014). In addition, all 8 pangolin species were elevated to Appendix of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) on the 17th meeting of the Conference of the Parties of CITES (Nature World News, 2016). In both Myanmar and China all pangolin species are protected by national laws and the domestic trade is banned or regulated (Table 1).

The combination of both laws and regulations, imply that all trade on pangolins and their parts within Myanmar and across the border is illicit. In China, pangolin scales presented in stockpiles can be used as Traditional Chinese Medicine (TCM) when labelled accordingly (CSFA, 2007), and they can be sold in 700 designated hospitals. But the scales were traded illegally in markets. Xu et al. (2016) found scales being sold in 62% (68 out of 110) of TCM retails shop and 35% (73 out of 209) in TCM markets.

In recent years, Myanmar has made substantial progress in its political democratization. The reconciliation with the democratic opposition, the lifting of most of the financial sanctions by the West, and an improved relationship with the country's ethnic minorities has contributed to a dramatic change at the political, financial and economic levels. As of early 2014, only the Kachin Independence Army has been engaged in armed conflict with the government (Sun, 2014). Although the Kachin Conflict continues to hamper biodiversity conservation efforts in the State, recent progress has been made and an increased body of research and conservation teams are now allowed to work in the area. During December 2015–January 2017, the Southeast Asia Biodiversity Research Institute, Chinese Academy of Sciences (CAS-SEABRI), the Hponkan Razi Wildlife Sanctuary (HRWS) and the Forest Research Institute (FRI) of Myanmar jointly performed three general biodiversity surveys in Hponkan Razi Wildlife Sanctuary and Hkakabo Razi National Park, in the Putao area, northwest part of Kachin state in Myanmar. The first, third and fourth authors joined the surveys, and there was no need to be escorted by the army during the field season.

Here, we give an overview of the pangolins' trade in the study area. This area is close to both the Indian and the Chinese borders. Our data comes from a combination of field based interviews and online seizure data, and focuses on the links between China, Myanmar and India. Furthermore, we investigated which are the main traded pangolins' products and the conservation gaps in this area. We conclude, by suggesting possible ways to improve and establish suitable conservation laws and policies in order to protect these highly endangered species.

2. Methods

2.1. Study area

This study was conducted in Hponkan Razi Wildlife Sanctuary, south area to Hkakabo Razi National Park and surrounding regions in Putao, northwest of Kachin state, with a total area of around 5000 km^2, the elevation ranges from 400 to 3600 m asl. The local forests comprise subtropical rainforest, temperate rainforest, mixed deciduous forest, and bamboo-rhododendron forests (Renner et al., 2007). We have gathered evidence that *M. pentadactyla* occurs in this area, since it was captured by camera trap in the Hukaung valley, located at the southern part of our study area (Hla Naing, 2015), and also suggested by Challender et al. (2014a).

There are a diversity of local ethnic groups in this area, with the main ones being Lisu, Rawang, Kachin, Kayin and Shan, with a total population of around 6000 people (Renner et al., 2007). We have visited eight villages during the survey, Namse (30 households of Lisu ethnicity), Shang Guang (200 households, mostly of Rawang and some of Lisu ethnicity), Wasadam (24 households mostly of Rawang, and some of Lisu ethnicity), Ziadam (30 households of Rawang ethnicity), and Namhtomkhu (200 households of Lisu ethnicity), Katu (50 households of Rawang ethnicity), Naung Mung (1000 inhabitants of Lisu and Rawang), Gawlai (30 households of Rawang ethnicity).