

Final Report on Investigations of Pangolin Trade in Muse, Northern Shan State, Myanmar-China Border Town

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Abstract

Investigations of pangolin trade in Muse, Northern Shan State, Myanmar -China border town were conducted one year project from May to October 2016. Mandalay, a major commercial centre of Myanmar and Muse on the border with China were focused on main study sites. The studies were based on field studies and involved interviews with local people and on directly observations to investigate status of pangolin species are being traded. A total of seven wildlife species including Pangolin species were recorded during six months survey. Pangolin scales were observed as a small amount in market survey in Muse and one live pangolin were recorded at the village near Muse. According to local informants, large amount of Pangolin were traded daily from Myanmar to China by illegal route near Muse check point and most of wildlife species including pangolin species come via central Myanmar as well as everywhere from Myanmar. These investigations were conducted to improve enforcement of the law with regard to the illegal trade in pangolin species.

Keywords: *Pangolin; Wildlife Trade; Conservation; Muse*

Introduction

Trade in pangolins is seen as a major impediment for their conservation, especially so for the four Asian species but increasingly for the four African species as well. The primary threat is poaching for international trade, which is largely driven by demand in China, and to a lesser extent Vietnam, and involves live animals, their meat and scales (Pantel and Chin, 2009; Shepherd, 2009). Pangolins are a totally protected animal under Myanmar's Protection of Wildlife and Wild Plants and Conservation of Natural Areas Law of 1994. Killing, possessing, selling, transporting or transferring (including exporting) totally protected wildlife, or any part thereof, without permission, is punishable with imprisonment for up to seven years and/or a fine of up to MMK 50,000 (USD 8183) (Naing, 2009). There are three species of pangolin native to Myanmar. In eastern Myanmar two species of pangolin are present, i.e. the Sunda pangolin *Manis javanica* and the Chinese pangolin *M. pentadactyla*, and some 1000 km to the west, the Indian pangolin *M. crassicaudata* can be found. Both the Sunda and the Chinese pangolin are listed as Critically Endangered (Challender et al., 2014a,b) and the Indian pangolin is listed as Endangered (Baillie et al., 2014). All are primarily threatened by overexploitation.

Myanmar is one of the most biologically diverse regions in the world. The traditional hunting of wildlife by local tribes and commercial hunting appears to be placing pressure on

some species including Pangolin species. Some of the species encountered are facing some degree of threat and any increase in hunting may place further pressure on them. It is therefore essential that conservation and management strategies are devised to ensure the sustainability of these resources. All observations and investigations on Pangolin species take place in markets on the border areas where the trade in wildlife including Pangolin species is very active and is conducted in most cases with impunity despite national and international laws to prohibit the trade in these species. There are need for greater enforcement and awareness efforts in large, commercial towns, as well as in border areas, in addition to an examination into any trade patterns that may be emerging. The lack of information is hampering efforts to conserve the rich biodiversity of the region. Strategically, it is essential for effective biodiversity conservation in order to make the best use of available resources and invest in the long-term management of biological resources.

The present research is carried out with the following objectives: to record and identify pangolin species in Myanmar ,to examine quantity of pangolin species are being traded and to investigate trade routes of pangolin species.

Methods

Study site, Muse located in northern part of Shan State (Fig 1). The study was undertaken for six months from May to October 2016. Surveys in market and shop was mainly focused. The research was based mainly on field studies and involved interviews with local people and on direct observations. Visits to the study sites, Mandalay and Muse, were undertaken once per two months in each sites during the course of the survey period, totally six months research. Spent three or four days in one visit. In order to assess hunting and wildlife trade in pangolin species, questionnaires were used. Information relating to identification of the species hunted, trade routes and sources were collected via interviews with villagers, hunters, small scale dealers, middlemen and other traders.

Each survey was consisted of both interviews with traders and observations and counting of wildlife parts and derivatives at the market. Species, part of the wildlife, price, and trade route will record. All species and their derivative parts observed were recorded by taking photos.

Identification of species follows Lekagul and McNeely (1977), Martin *et al.* (2001), and Francis (2008). The conservation status of the species recorded is in accordance with national protection categories set down in the *Myanmar Wildlife Protection Law (MWPL, 1994)*; the IUCN-Red List of Threatened Species (IUCN, 2015), and in the Appendices of the

Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES, 2015).



Fig . 1. Location map of Muse in Shan State, Myanmar.

Results

A total of two vendors were selling wildlife products in morning market in Muse during the survey period. All of vendors were recorded as road-side shops in the morning market, especially market in every fifth day.

According to the results obtained from Muse survey, small amount of pangolin scales (3 kg) in the plastic bag were recorded. One live pangolin (8 kg) were found to be traded species from villager at the small village near Muse.

Including Pangolin species, a total of seven wildlife species; Asian Elephant *Elephas maximus*, Asiatic Black Bear *Ursus thibetanus*, Sambar *Rusa unicolor*, Red Muntjac

Muntiacus muntjak, East Asian Porcupine *Hystrix brachyura*, and Eurasian Wild Pig *Sus scrofa* were offered for sale in Muse market.

Some of species been listed under nationally and/ or globally threatened categories under the *Myanmar Wildlife Protection Law 1994 (MWPL)*, the IUCN Red List, and/or in the CITES Appendices.

According to the results obtained from nationally and/or globally threatened categories, one Critically Endangered species, one Endangered species, one vulnerable species, three Least concern species were recorded in trade in IUCN Red List (2015); each of one species observed were listed Appendix I, II under CITES (2015) and two completely protected species, one normally protected species and one seasonal protected species in MWPL (1994) were recorded (Table 1).

According to the results obtained from Mandalay survey, there were not found any parts of wildlife including pangolins. However, according to the interview with one owner of birds selling shop from Sagaing near Mandalay, the route from Myawaddy on the border of Thailand to Mandalay were observed as one of trade routes for pangolin species. Moreover, one trader live in Mandalay were observed as a collector for various wildlife skins including pangolin scales.

Questionnaire interview were not conducted to investigate trade routes in Muse. However, according to local informants, most of wildlife species come via central Myanmar as well as everywhere from Myanmar.

No.	Common Name	Scientific Name	Conservation Status			Observed Parts	Price	Observed Amount	Remarks
			IUCN	CITES	MWPL				
1	Asian Elephant	<i>Elephas maximus</i>	EN	I	CP	Pieces of skins	unknown	60	
2	Chinese Pangolin	<i>Manis pentadactyla</i>	CR	II	CP	Scales (3 kg)	CNY 2400/ 1 kg	impossible to count	
						Live (8 kg)	CNY 1600/ 1 kg	1	Small village near Muse
3	Sambar	<i>Rusa unicolor</i>	VU	-	P	Dead body	MMK 6000/ 1 kg	1	
4	Red Muntjac	<i>Muntiacus muntjak</i>	LC	-	SP	Dead body	MMK 5000/ 1 kg	1	
5	Eurasian Wild Pig	<i>Sus scrofa</i>	LC	-	-	Dead body	MMK 5000/ 1kg	1	
6	Asiatic Black Bear	<i>Ursus thibetanus</i>	VU	I	P	Gall bladder	unknown	1	
7	East Asian Porcupine	<i>Hystrix brachyura</i>	LC	-	-	Quills	unknown	abundant	
						Stomach	unknown	6	
						Dead body	MMK 3000/1kg	4	

Table 1. Traded species, observed parts, conservation status and price for sale in Muse market

Note: CR-Critically Endangered species;EN-Endangered species; VU-Vulnerable; LC-least concern;

I-Appendix I; II-Appendix II;

CP-Completely Protected species; P-Normally Protected; SP-Seasonal Protected.

CNY - Chinese Yuan

MMK- Myanmar Kyat

Currency rate - (CNY 1= 189 MMK)

Discussion and Conclusion

Muse, its close location to China and the need by people for hard currency has resulted in the unsustainable exploitation of the State's natural resources. Investigations during the course of the survey found that illegal wildlife dealers use well established and highly organized cross-border networks.

Animal body parts are mainly used as ingredients in traditional medicines, as well as collectors' trophies, decorations and as luxury items. Live animals are sold as pets or for fresh food, as well as for zoological exhibits, or may be killed for just a single body part—for example, gall bladders from bears.

According to the results obtained from market survey, the blood of pangolins were observed as one of the major purposes for pangolin trade.

There were observed only small amounts of pangolin scales and live pangolins for sale during study period, however, according to the local informants, the volumes increased over time because large amount of pangolin were traded daily from Myanmar to China by illegal route near Muse check point. The fact that pangolins appear to be available daily is of high concern

Finally the wild meat restaurants and the casinos, the latter of which are outside the town proper, Ruili, China side. The number of pangolins needed on a daily basis for these commercial enterprises is higher than that in the morning market or in the wildlife trophy shops. Pangolins are delivered by small delivery vans in cages stacked on top of each other and according to local informants, arrive most likely daily. In addition to locally or regionally sourced pangolins, this trade involves pangolins from further afield.

In view of the testimonies of those interviewed that the trade in most wildlife species included Pangolin species and related products was increasing each time, it is possible that these practices are contributing to the overexploitation of wildlife resources in the region.

Nijman et al. (2016) mentioned that the bridge between the cities of Muse and Ruili is an important gateway for the pangolin trade into China.

Moreover, Shepherd and Nijman (2007) reported without effective monitoring and regulation, and increased efficiency of law enforcement, Myanmar's wildlife will continue to be depleted.

Oswell and Davies (2002) indicated that the primary purpose of much of this trade is to supply the demand from China, and indeed that wildlife is being imported into China.

Although little is known about the extent of wildlife trade within and from Myanmar, it is well known that China is a major consumer of wildlife from neighbouring countries (Yiming and Dianmo, 1998; Yiming and Wilcove, 2005), including Myanmar (Yiming *et al.*, 2000).

Additional monitoring and research on the trade in animals and plants from Myanmar is needed, in combination with increased law enforcement co-ordination between Myanmar authorities and their counterparts in China. Information should be provided to the national authorities and/or the international conservation community whenever possible. The Myanmar Government recognizes that increased co-operation and communication with China, and with all neighbouring countries, is essential in controlling the cross-border trade and in effectively implementing CITES (Compton, 2003).

Muse's position on the border with China allows for cross-border trade with Chinese. While Muse is situated within Myanmar its outlook is firmly directed to China. Therefore, enforcement efforts need to be stepped up considerably, ideally with the backing of the Myanmar and Chinese central government. I would like to recommend that the Myanmar and Chinese CITES authorities come liaise as to resolve the illicit trade of wildlife and wildlife products across their borders.

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Fig 1. Live pangolin weighting for sale near Muse



A



B



C



D

Fig 2. Pangolin scales for sale in Muse Market (A-D)



A



B



C



D

Fig 3. Road-side shops of various wildlife products display for sale in Muse market(A-D)