

A Final Report on Investigation of Wildlife Trade in Myanmar-Thailand Border Cities under Growing Trans-boundary Economic Trade

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Abstract

Investigation of Wildlife Trade in Myanmar-Thailand Border cities under Growing Trans-boundary Economic Trade was conducted one year (March 2016 to March 2017). Tachileik and Myawaddy were focused as two main study cities on the border with Thailand. Items observed at the survey site included animal skins, whole animals and body parts, primarily for use in traditional medicine and for decoration; live animals were on sale to be kept as pets and wild meat for food. There were not observed any wildlife parts in Myawaddy on the border of Thailand. In Tachileik, a total of 35 species were recorded, of which 33 species are afforded some degree of protection under Myanmar's national wildlife legislation and/or are listed in the CITES Appendices or in IUCN globally threatened categories. Only 18 of the 35 species observed were not listed in the CITES Appendices. Eight of the 35 species were not legally protected in the MWPL. According to interviews with local traders and from direct observations, most of wildlife species were brought by middle men from everywhere of Myanmar, furthermore, wildlife from Tachileik is traded not only to Thailand by using illegal route avoid the Myanmar-Thailand check point but also to China through Mong La, the border town as the destination of traded wildlife species. Therefore, wildlife parts were seen for sale in Tachileik apart from Myawaddy, where trade is locally prohibited.

Introduction

Thousands of wildlife species are threatened by illegal and unsustainable wildlife trade. For example, in recent months significant media attention has gone to the plight of the world's rhinoceros species, which are facing increased poaching as demand for their horns increases in Asia. In some parts of Asia, rhino horn is considered to be a powerful traditional medicine, used to treat a variety of ailments. While there is little scientific evidence to support these claims, the dramatic rise in poaching to supply this demand is pushing rhinos toward the brink of extinction.

Each year, hundreds of millions of plants and animals are caught or harvested from the wild and then sold as food, pets, ornamental plants, leather, tourist curios, and medicine. While a great deal of this trade is legal and is not harming wild populations, a worrying large proportion is illegal and threatens the survival of many endangered species.

Myanmar is one of the most biologically diverse countries in the oriental region. Different types of habitats and ecosystems from pine and conifer forest from northern Himalayan range to mangrove in coastal area and tropical forest in southern part of Taninthayi. Covering a

total land area of 677 0002, it is home to many rare, endangered and endemic species. The economy is largely based on agriculture, with some 80% of the population residing in rural areas and dependent on forest resources for their livelihoods (NCEA, 1997). With a rising human population of 57.5 million (Myanmar Statistical Year Book, 2008), and a growing economy, habitats have been degraded, which has resulted in a steady decline in some wildlife species and other natural resources (AIT Research, 2000).

Major threats include deforestation, fire, timber cutting, flooding, landslides, and other human-related impacts. One of these is the trade in wildlife, which is seen as a very important source of income generation within the country (Martin, 1997), bringing many benefits through employment to rural communities, the business sector and to the national economy. At the same time, such trade poses a serious conservation threat to many species (Saw Han, 1992).

The area of Myawaddy is closely situated with western forest complex of Thailand in Thai side and Dawna-Taninthayi landscape in Myanmar. And also border cross gates were official open. Therefore, how wildlife trade cross between Myanmar and Thailand is require to understand. Moreover, according to secondary data, Tachilek is one of the key traded areas for Felis species.

The present research is carried out with the following objectives: to investigate which wildlife species are being traded, to assess the status of protection level of traded species and to investigate trade routes under growing trans-boundary economic trade.

Methods

The study was undertaken for one year between March 2016 and March 2017. Tachilek and Myawaddy were conducted as two main study cities on the border with Thailand. Tachilek is located in eastern Shan State and forms Myanmar's main border crossing with northern Thailand from the Thai town of Mae Sai, which sits directly south on the other side of the small Mae Sai River. Myawaddy is a town in south-eastern Myanmar in Kayin State close to the border with Thailand. Separated from the Thai border town of Mae Sot by the Moei River, the town is most important trading point between Myanmar and Thailand. A map of the study area is shown in Fig. 1. Surveys were focused on the markets and traditional medicine shops of both cities. The research was based on field studies and involve interview with local people and on direct observations. Visits to the both study sites

were undertaken once per two months alternately. About one weeks during the course of the survey period.

In order to assess wildlife trade and their status, questionnaires were used. Information relating to identification of the species traded, trade routes and sources will gather via interview with shopkeeper, small-scale dealers, middlemen and other traders. Local informants and direct observation techniques were also used. Species, part of the wildlife, price and trade routes were recorded. Each survey was consisted of both interviews with traders and observations and counting of wildlife parts and derivatives at the market. All species and their parts observed were recorded by taking photos. Most of specimens were not openly displayed, and there was need to resort to undercover techniques to obtain the relevant data. An obligatory guide from Tachilek provided the necessary translations. Species that could not be readily identified were photographed for further reference.

Identification of species follows Lekagul and McNeely (1977), Groves (2001), Martin *et al.* (2001), Win Maung and Win Ko Ko (2002) 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, 2017) and in the Appendices of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES, 2017).



Fig . 1. Location map of Tachilek and Myawaddy

Results

According to the results obtained from two main study sites; Myawaddy and Tachikeik, there were not observed any wildlife parts in Myawaddy on the border of Thailand.

Although there were no wildlife parts in Myawaddy, some bird species and reptiles species were recorded as pet species in Mae Sot in Thailand, opposite Myawaddy on the border of Thailand. According to the interview with birds shop owner in Mae Sot, some birds species were recorded coming from Myanmar side.

In Tachileik, a total of four markets; Tar Lot market, Ah Kha market, San Sai market and Wan Kaung market. Most of markets were observed as the morning markets. Among them, Tar Lot market are the biggest one and were recorded to be found selling in wildlife product openly. Any wildlife parts were not found in Ah Kha market and Wan Kaung market. Some wildlife species especially birds were observed in San Sai market.

In Tar Lot market, a total of eight shops were recorded as the selling wildlife products shops. Most of shops were observed as the traditional medicinal shops and some were recorded as selling antiquarian shops. Out of eight shops, three were observed to be found selling ivory products together with other wildlife products. In addition, one home shop in down town were recorded as a selling wildlife products with various antiquarian, however, wildlife is not openly displayed but held nearby and only shown to trusted customers.

A total of 35 species; 19 species of mammals, 12 species of birds and four reptiles species were recorded as the traded species in Tachileik markets.

A combination of freshly killed animals and dried or durable parts (horns, antlers, etc.) were observed. A total of 10 wild animal body parts were recorded in trade during the study period, including skulls, antlers, horns, skins, canines, gall bladders, stomachs, dried genitals, tusks, and quills. A large proportion of these parts are used for traditional medicine. Most of bird species were recorded as the pet species. It was difficult to be certain that the figures recorded over the period of the survey did not include double-counting. While the sale of some items, such as meat, was likely to be frequent, it was less easy to establish turnover for some of the other items on sale.

Most 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. Fourteen species were of completely protected species listed in *MWPL*; six species were classified by IUCN as Endangered species (IUCN, 2017); and 11 species

were listed in CITES Appendix I (CITES, 2017). Only 18 of the 35 species observed were not listed in the CITES Appendices. Eight of the 35 species were not legally protected in the MWPL.

According to the results obtained from nationally and/or globally threatened categories; six Endangered species, four vulnerable species, nine near-threatened species and 13 least concern species were recorded in trade in IUCN Red List (2017); 11, five and one species observed were listed Appendix I, II and III under CITES (2017) and 14 completely protected species, 10 normally protected species and three seasonal protected species in MWPL (1994) were recorded. The highest number of traded wildlife species on sale (54%) were recorded in Mammals species which was followed by birds species (34%) and reptiles species (12%) respectively (Table 1, 2 and 3).

According to interviews with local traders and from direct observations, most of wildlife species were brought by middle men from everywhere of Myanmar, furthermore, wildlife from Tachileik is traded not only to Thailand by using illegal route avoid the Myanmar -Thailand check point but also to China through Mong La , the border town as the destination of traded wildlife species. Therefore, wildlife parts were seen for sale in Tachileik apart from Myawaddy, where trade is locally prohibited.

Table 1. Mammals species, observed parts and their conservation status in two study sites

| No | Common Name | Scientific Name | Conservation Status | | | Study sites | | Observed parts |
|----|--------------------------------|-----------------------------------|---------------------|-------|------|-------------|----------|--|
| | | | IUCN | CITES | MWPL | Tachilek | Myawaddy | |
| 1 | Asian Elephant | <i>Elephas maximus</i> | EN | I | CP | √ | x | Pieces of skins, Pieces of teeth |
| 2 | Tiger | <i>Panthera tigris</i> | EN | I | CP | √ | x | Canines, claws, dried genital organ |
| 3 | Clouded Leopard | <i>Neofelis nebulosa</i> | VU | I | CP | √ | x | Skin |
| 4 | Leopard cat | <i>Prionailurus bengalensis</i> | LC | II | P | √ | x | Skin |
| 5 | Asian Golden Cat | <i>Catopuma temminckii</i> | NT | I | CP | √ | x | Skin |
| 6 | Spotted Linsang | <i>Prionodon pardicolor</i> | LC | I | CP | √ | x | Tail |
| 7 | Asiatic Black Bear | <i>Ursus thibetanus</i> | VU | I | P | √ | x | Gall bladder |
| 8 | Hog Badger | <i>Arctonyx collaris</i> | NT | - | - | √ | x | Skull |
| 9 | Yellow-throated Marten | <i>Martes flavigula</i> | NT | III | P | √ | x | Skull |
| 10 | Guar | <i>Bos gaurus</i> | VU | I | CP | √ | x | Head with Horns |
| 11 | Sambar | <i>Rusa unicolor</i> | VU | - | P | √ | x | Anters |
| 12 | Red Serow | <i>Capricornis rubidus</i> | EN | I | CP | √ | x | Head |
| 13 | Chinese Serow | <i>Capricornis milneedwardsii</i> | NT | I | - | √ | x | Skin, horns |
| 14 | Red Muntjac | <i>Muntiacus muntjak</i> | LC | - | SP | √ | x | Skins, Head with horns, Key chains made by horns |
| 15 | East Asian Porcupine | <i>Hystrix brachyura</i> | LC | - | - | √ | x | Stomach, quills |
| 16 | Asiatic Brush-tailed Porcupine | <i>Atherurus macrourus</i> | LC | - | - | √ | x | Dead body |
| 17 | Eurasian Wild Pig | <i>Sus scrofa</i> | LC | - | - | √ | x | Tusks |
| 18 | Bamboo rat | <i>Rhizomys sp.</i> | - | - | - | √ | x | Live |
| 19 | Gibbon | <i>Hylobates sp.</i> | EN | II | CP | √ | x | Skull |

Note: CR-Critically Endangered species; EN-Endangered species; VU-Vulnerable; NT-Lower Risk Near Threatened; LC-least concern; I-Appendix I; II-Appendix II; III Appendix III; CP-Completely Protected species; P-Normally Protected; SP-Seasonal Protected.

Table 2. Birds species, observed parts and their conservation status in two study sites

| No. | Common Name | Scientific Name | Conservation Status | | | Study sites | | Observed parts |
|-----|-------------------------|------------------------------|---------------------|-------|------|-------------|----------|----------------|
| | | | IUCN | CITES | MWPL | Tachilek | Myawaddy | |
| 1 | Black shouldered Kite | <i>Elanus axillaris</i> | LC | - | CP | √ | x | Live |
| 2 | Black collared Starling | <i>Gracupica nigricollis</i> | LC | - | - | x | √* | Live |
| 3 | Spotted Dove | <i>Spilopelia chinensis</i> | LC | - | SP | x | √* | Live |
| 4 | Alexandrine parakeet | <i>Psittacula eupatria</i> | NT | - | P | √ | x | Live |
| 5 | Common hill myna | <i>Gracula religiosa</i> | LC | II | CP | √ | x | Live |
| 6 | Red breasted Parakeet | <i>Psittacula alexandri</i> | NT | - | P | √ | x | Live |
| 7 | Collared scops owl | <i>Otus lettia</i> | - | - | CP | √ | x | Live |
| 8 | Helmeted guineafowl | <i>Numida meleagris</i> | LC | - | CP | √ | x | Live |
| 9 | Red-breasted parakeet | <i>Psittacula alexandri</i> | NT | - | P | √ | x | Live |
| 10 | Grey-headed parakeet | <i>Psittacula finschii</i> | NT | - | P | √ | x | Live |
| 11 | Red-whiskered bulbul | <i>Pycnonotus jocosus</i> | LC | - | SP | √ | √ | Live |
| 12 | Green Peafowl | <i>Pavo muticus</i> | EN | II | CP | √ | x | Feathers |

Note: * = Mae Sot (Thailand)

Table 3. Reptiles species, observed parts and their conservation status in two study sites

| No. | Common Name | Scientific Name | Conservation Status | | | Study sites | | Observed parts |
|-----|---------------------|----------------------------------|---------------------|-------|------|-------------|----------|----------------------|
| | | | IUCN | CITES | MWPL | Tachilek | Myawaddy | |
| 1 | Big-headed Turtle | <i>Platysternon megacephalum</i> | EN | I | CP | √ | x | Live |
| 2 | Green Iguana | <i>Iguana iguana</i> | - | - | - | x | √* | Live |
| 3 | Asian Water Monitor | <i>Varanus salvator</i> | LC | II | P | √ | x | Live |
| 4 | Burmese Python | <i>Python molurus</i> | NT | I | P | √ | x | Skins, Gall bladders |

Note: * = Mae Sot (Thailand)

Discussion and Conclusion

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.

Overall, information gathered from interviews and from direct observations of two main study sites, showed that the number of items in trade was found to be increasing time by time. It may be assumed that most of wildlife species will be going to extinct for near future.

Although there were not observed any wildlife parts in Myawaddy, some bird species and reptile species from Myanmar were observed at Mae Sot, the opposite side of Myawaddy. This finding indicated that the use of wildlife and the consumption of wild products in Myawaddy will be prohibited and it was reported that the range of wildlife products in trade in this area had declined compared with previously. In addition, according to the results obtained from Myawaddy and Tachileik, Myawaddy were not observed any traded wildlife species and their derivative products. It may be assumed that Tachileik will be easy to trade for wildlife and also located near Mong La.

According to results obtained from the market survey in Tachileik, mammal species were traded as the most common species in the use of traditional medicine. This finding indicates that mammal species was seen to be the most demand species in traded species used for traditional medicine as well as various goods for human use including souvenir, ornaments and decoration.

In Tachileik, at an antiquarian home shop situated in the downtown, tiger skins, leopard skins and clouded leopard skins were recorded for sale, however not openly displayed. Moreover, it is highly unlikely that any of the dealers in the market had the required permits, as they were aware that their activities were illegal and were very wary when questioned or when photos were taken.

Sapai Min (*in litt.*, 2015) recorded that in Mong La on the border of China there were 49 traded species and a total of 16 vendors were recorded. According to the comparison with Mong La on the border of China and Tachileik on the border of Thailand, it may be assumed that China were recorded as more demand for wildlife trade than Thailand. The fact that all specimens observed in the Mong La market were openly displayed demonstrates the blatant disregard for national legislation—or at least a lack of awareness of a law that is inadequately enforced. On the other hand, the number of bird species in live trade were

recorded as the highest to be found in Tachilek than Mong La. This finding indicated that bird species were observed as the demand specie for trading in Thailand.

To access the trade routes, according to the questionnaire interview with local people from Tachileik, most of wildlife species come from inside Myanmar via central Myanmar. Moreover, Mong La were observed at the destination points of all wildlife species for both of study sites.

In addition, trade demands and hunting pressure may concern one of the factors in over exploitation of wildlife resources. In view of the testimonies of those interviewed that the trade in most wildlife 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.

Furthermore, Oswell (2010) stated that enforcement in Tachilek and Mong La appears to be totally absent; in Tachilek this is due to lack of pressure on the authorities to treat these illegal sales as a priority issue. In Mong La, the central Myanmar government has limited powers, and it is the egregious lack of enforcement that allows this illegal trade to continue.

Moreover, Nijman and Shepherd (2014) mentioned that the decrease of availability of wild cat parts in Tachilek is possibly due to increased enforcement efforts in Thailand, while the increase in trade in Mong La may be linked to an increase in buying power in China. The possible increase in wild cat parts in Mong La observed in recent years parallels that of the trade in other wildlife, such as ivory, in this market.

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).

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A



B



C



D



E



F



G



H

Plate 1. Recorded traded species and their observed parts in Tachileik



I



J



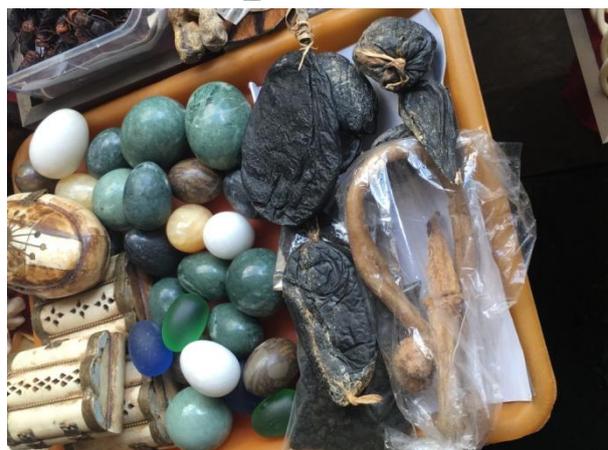
K



L



M



N

Continued Plate 1



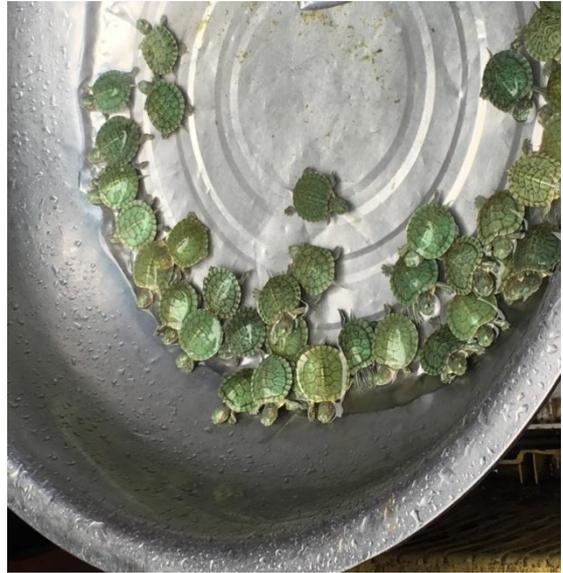
A



B



C



D



E



F

Plate 2. Recorded some traded species in Mae Sot (Thailand), opposite Myawaddy