

Hunting record of an Evolutionarily Distinct and Globally Endangered Chinese Pangolin (*Manis pentadactyla*) in Western Arunachal Pradesh

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ABSTRACT

During a questionnaire study conducted between November 2010 and April 2012 in three districts (East Kameng, Papumpare, and Lower Subansiri) of Arunachal Pradesh, northeast India, to assess wildlife-human conflict levels, a skinned specimen of an endangered Chinese pangolin (*Manis pentadactyla*) was found. This small mammal is rarely encountered in India due to its secretive nature and habitat specificity. Relatively low number of reports exists of the species in the region. Conservation and management of this species in this region is impeded by the paucity of ecological information and lack of detailed short and long term threat assessment. Hence, further academic and conservation interventions are urgently required to understand its population, status and spread conservation awareness among local communities.

Keywords: Chinese Pangolin, Hunting, Indigenous communities, Non-Selective trap, Arunachal Pradesh

INTRODUCTION AND OBSERVATION

The pangolin is considered as one of the top 100 EDGE (Evolutionarily Distinct and Globally Endangered) species due to its unique niche and evolutionarily distinct position (Zhou *et al.*, 2014; Thapa *et al.*, 2013). Pangolins belong to the order Pholidota and come under the family Manidae. The characteristic feature of these mammals is their long tongues and armoured scaly body. In Africa as well as Asia pangolins share a similar niche to that equivalent of the South American anteaters. There are 7 species of pangolins, 4 belong to Africa and 3 to the Asian continents (Macdonald, 2009) (Fig. 1). What is crucial is two of the seven species are listed as endangered and are Asian species of pangolins i.e. the Chinese pangolin (*Manis pentadactyla*) and the Sunda pangolin (*M. javanica*). The Ground pangolin also known as the Cape pangolin (*M. temminckii*) is also believed to be threatened (Macdonald, 2009; Duckworth *et al.*, 2008).

The main threats to pangolins worldwide has been their extraction for medicinal purposes as their scales are believed to have positive effects as an aphrodisiac and detoxification agent. It is used for puss drainage, provides relief against palsy and stimulates lactation (Zhou *et al.*, 2014). The pangolin was considered superstitiously a bad omen if sighted by locals but the knowledge of its commercial value led to increase in its hunting (Thapa *et al.*, 2013). considered a delicacy in China (Heath, 1992). Locating a burrow, smoking the animal out, use of dogs or digging pangolins out are some of the common methods used to hunt the animal (Thapa *et al.*, 2013).

Pangolins thrive in various habitats of conifer to evergreen forests and burrows mostly exists in slopes

of 20 to 40 having a good exposure to sunlight (Heath, 1992). Chinese pangolins feed mainly on the imagoes, then larvae, eggs, adults, some wood powder nest material, and excrement of the ants or termites (Fang and Wang, 1980). The species is nocturnal and walks quadrupedally (Heath 1992. see for further detail). Much of the ecology the species is however lacking with respect to its burrowing nature, breeding ecology in the wild and its population status.



Figure 1. Hunted specimen of *Manis Pentadactyla*, Chinese Pangolin in Western Arunachal Pradesh, India. (Photo: Salvador Lyngdoh, 2011)

In India few reports from hunting specimens and surveys (Choudhuri, 1998) exists of its occurrence. In the neighbouring countries the species' counterpart *M. crassicaudata* is being severely impacted by hunting; its status in Bangladesh, Pakistan and Sri Lanka appears to be decreasing (Mahmood et al 2012). In Pakistan several pangolins were seized on their route to be smuggled. In eastern India Chinese pangolins were known to be found in government staff quarters that had been received as gifts or occasionally been bartered for by Army personnel (Aiyadurai *et al.*, 2009). Indigenous communities as well as poachers in the region continue to hunt it due to its market demand as well as for consumptive purposes (Gopi *et al.*, 2012). The pangolin species in India are accorded highest level of protection by the Indian wildlife protection act 1972 as a schedule I species as well as listed in the CITES

Our observation of the Chinese pangolin that was hunted happened during a Questionnaire survey spanning over 372 households in Western Arunachal Pradesh. In 2010-2012, we surveyed 3 districts i.e East Kameng, Papumpare and Lower Subansiri districts. A total of 48 villages of *Nyishi* and *Apatani* communities was visited. A Chinese pangolin as a trophy which was collected from a local hunt was displayed in Hong Village, 27°33'16"N, 93°50'56"E of the Apatani valley. The meat was consumed and the pangolin was displayed over the furnace as were many other items of wildlife. The specimen was approximately 80- 100 cm in length between snouttip to tail. According to the respondent it was collected using a noose trap for trapping rodents and other small mammals. The exact location of the hunt was about 10-15 km from the place it was recorded.

CONCLUSION

Hunter knowledge has been used in many areas for conservation of species (Newton, Nguyen, Robertson, & Bell, 2008) In Arunachal Pradesh several studies have documented indigenous hunting by locals. Current market demands are slowly increasing local pressure on hunting of rare and endangered animals in region. From our observations, hunting pressure particularly on pangolins may be lower comparatively than other terrestrial animals. It is unclear whether the species is consumed for other purposes than solely for its meat in this region. Records of such nature and encounters also reinstate the fact that the species is still well found in the region but its population status is largely unknown. Further studies on the status and habitat ecology as well as traditional knowledge of the species may be useful to conserve the species in the future.

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