

Locality Records of Mustelids, Viverrids and Herpestids from Arunachal Pradesh

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I UNDERTOOK SURVEYS for pheasants in six districts of western and central parts of Arunachal Pradesh during February to May 1998, September to November 1998, and October 1999 to January 2000 (Kumar & Singh 1999, Kumar & Singh *in prep.*). During these visits, I collected information on mustelids, viverrids and herpestids, hereafter referred as MVHs. Arunachal Pradesh falls in the Eastern Himalaya Biogeographic Province of the Himalayan Biogeographic zone (Rodgers & Panwar 1988) and is listed among the 18-biodiversity hotspots of the world (Myers 1990). Zoogeographically, it is part of the Oriental region and lies at the junction of the Indian and Indo-Chinese subregions. The higher reaches of its mountains form the southern fringes of the Palearctic region (Athreya 1997). Due to this unique biogeographic position, topography and varying climatic conditions, the state is endowed with a large number of small carnivores.

Surveys for wildlife in this largely mountainous state, especially in the interior and higher areas have been very few and no specific study on the MVHs in the state has been carried out. Most published information consists of an overall general assessment of the distribution and status of small carnivores in the state (Prater 1971, Corbett & Hill 1992). Choudhury (1997) and Dutta (1999) provide some information on recent records of small carnivores from the state. The information presented here is from both direct and indirect evidences of MVHs with emphasis on locality records for each species. Other confirmed records of small carnivores from the state are also given here.

MUSTELIDS

Yellow-throated marten *Martes flavigula* and an unknown otter *Lutra* sp. were the only mustelids seen during my visits to the state. The unidentified otter could also be small-clawed otter *Aonyx cinerea*. However, skins of a yellow-bellied weasel *Mustela kathiah*, beech marten *Martes foina* and yellow-throated marten were seen, details for which are given below. The other mustelids known to occur in the state are the back-striped weasel *Mustela strigidorsa*, from a specimen collected from Namdapha TR. and Burmese ferret-badger *Melogale personata*, which was recently obtained from Pakhui WLS (Table 1 and Fig. 1). Siberian weasel *Mustela sibirica*, hog-badger *Arctonyx collaris* and Chinese ferret-badger *Melogale moschata* are believed to occur in the state, but no confirmed records of their occurrence have been obtained so far.

Yellow-bellied weasel *Mustela kathiah*

A fresh skin of this weasel was seen with a local in Sape village, Sari circle in Lower Subansiri district. The Nishi tribe living there knows this animal as "senai". The local told me that he found the animal in the bamboo trap laid for trapping rodents. The forest type where the weasel was killed was subtropical forest at an altitude of 1700 m. Measurement of the specimen collected: head and body length = 272 mm, tail length = 133 mm. The only other record of this species from the state is from East Siang district (Katti *et al.* 1990).

Threats: Not known. Appears to be occasionally killed in snares or traps laid for rodents and birds.

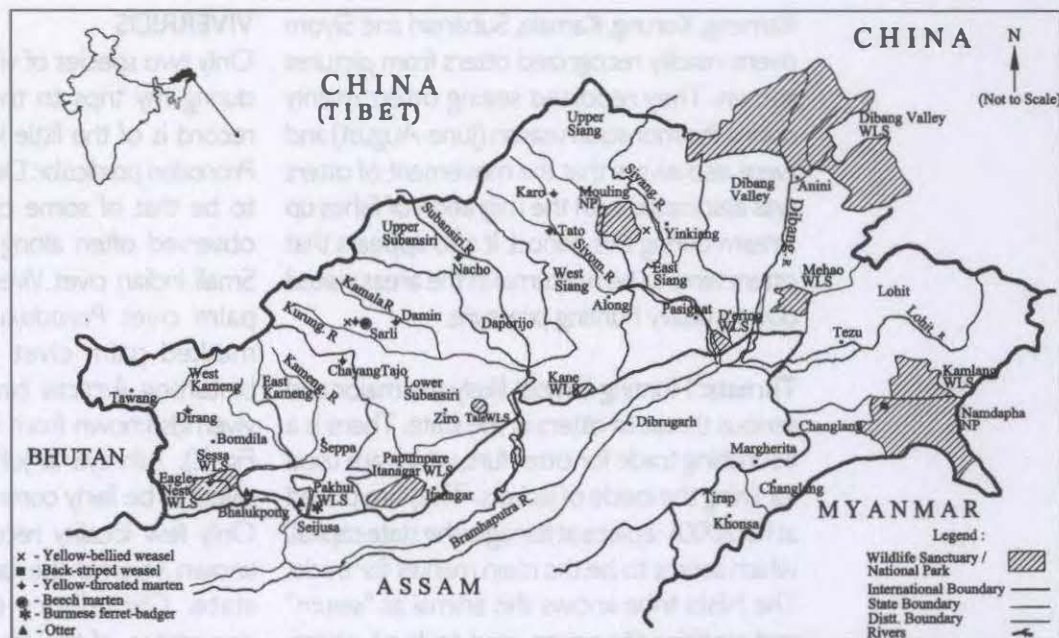


Fig.1 Locality records of mustelids in Arunachal Pradesh.

Surveys to determine the status of wildlife in Arunachal Pradesh, especially in the interior and higher areas have been very few and no specific study on the mustelids, viverrids and herpestids in the state has been carried out.

Yellow-throated marten *Martes flavigula*

Three individuals were sighted in the Eagle Nest WLS in West Kameng district at 2200 m. They were seen running down a slope in a bamboo-dominated area. Another was seen crossing a path at 1700 m and then disappear into a dense secondary forest near Sape village, Sarli circle in Lower Subansiri district. Earlier, Athreya & Karthikeyan (1995) have also reported sighting this marten at Eagle Nest WLS. Singh (1999) has recorded this species from a Yak farm near Dirang in West Kameng district. Skins of this marten were also seen in most localities visited.

Threats: All local people were found to eat the meat of this marten. Therefore hunting for meat could be a serious threat. The Nishi tribe knows this animal as "sarch" and uses its testicles for medicinal purposes. The Adi tribe of the West Siang district were observed to decorate their "dao" or sword mainly with the skin of this species. Local people in all the other districts visited were found to use the skin of this species to make small bags or pouches.

Beech marten *Martes foina*

A skin of this marten was found with a local in Sape village, Sarli circle in Lower Subansiri district. The Nishi tribe living there knows this animal as "tabo". The specimen examined was

killed at 4000 m in the alpine meadows close to the Indo-Chinese border. The local people told me that this animal was often seen chasing monal pheasants *Lophophorous* sp. in the alpine meadow region. This is the first confirmed record of this species from Arunachal Pradesh. Measurement of the specimen collected: head and body length = 364 mm, tail length = 212 mm.

Threats: Not known.

Otters

All three species of otters, the Eurasian otter *Lutra lutra*, smooth-coated otter *Lutra perspicillata* and Oriental small-clawed otter *Aonyx cinerea* found in the Indian subcontinent occur here. Two individuals of an unknown otter species were the only otters sighted during my visits to the state. The otters were observed in the Kameng or Bhareli River near Tipi forest rest-house in the West Kameng district, which forms the western boundary of the Pakhui WLS. They were observed for a few minutes, basking on a partly submerged rock along the river bank after which, they dived into the freezing waters and moved down stream. Dutta (1999) also reports seeing otter tracks and spraints along the Bhareli river in Tipi. Local people living along the upper reaches of all the major rivers in the districts visited, such as the

Kameng, Kurung, Kamala, Subansiri and Siyom rivers, readily recognized otters from pictures shown. They reported seeing otters mainly during the monsoon season (June-August) and were also aware that the movement of otters was associated with the migration of fishes up stream during this period. It also appears that otters tend to be nocturnal in the areas visited due to heavy hunting pressure.

Threats: Hunting is most likely the major and serious threat to otters in the state. There is a flourishing trade for otter furs, which are used for lining the inside of jackets. They are priced at Rs. 2000/- a piece at Itanagar the state capital, which seems to be the main market for trade. The Nishi tribe knows this animal as "serum" and traditionally never used to hunt otters. However, due to the demand for skins in the fur trade, few Nishi's have taken to hunting or they get the otters killed through the Sulungs (sub-tribe of the Nishi's), who do not have any taboo about hunting otters. Occasionally known to have been killed by snares laid for trapping fish. Habitat destruction also appears to be a threat since the forests all along the course of major rivers mentioned above are disturbed due to habitations and clearing for shifting cultivation. Therefore, in areas where there is no suitable cover along the rivers, otters probably do not occur.

VIVERRIDS

Only two species of viverrids were recorded during my trips to the state. An important record is of the little known spotted linsang *Prionodon pardicolor*. Droppings that appeared to be that of some civet species were also observed often along forest trails or paths. Small Indian civet *Viverricula indica*, common palm civet *Paradoxurus hermaphroditus*, masked palm civet *Paguma larvata* and binturong *Arctictis binturong* are the other viverrids known from the state (Table 1 and Fig. 2). Athreya & Johnsingh (1995) report civets to be fairly common in Namdapha TR. Only few locality records for another little known viverrid the binturong exists in the state. Choudhury (1997) reports the occurrence of the small-toothed palm civet *Arctogalidia trivirgata* from eastern Arunachal Pradesh. However, he does not mention any locality from where this species was recorded.

Large Indian civet *Viverra zibetha*

A stuffed specimen was seen with a local in Sari, Lower Subansiri district. The local had eaten the meat. This animal was killed near the village late one evening at 1600 m. The local also reported having seen this civet around Sari area on a number of occasions before.

Threats: Hunting for food and habitat loss.

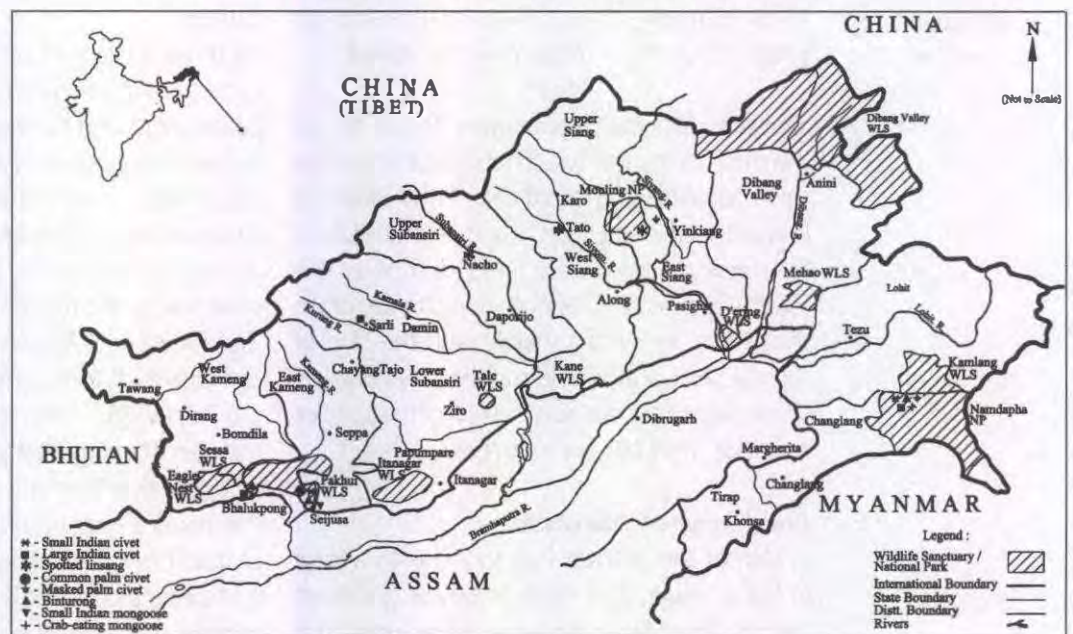


Fig.2. Locality records of viverrids and herpestids in Arunachal Pradesh.

Table I. List of recent locality records of mustelids, viverrids and herpestids in Arunachal Pradesh.

Species	Evidences	Locality	Source
MUSTELIDAE			
Yellow-bellied weasel <i>Mustela kathiah</i>	Skin One seen	Sape, Sarli, Lower Subansiri district On way to Miging, East Siang district	From this study Katti et al. (1990)
Back-striped weasel <i>Mustela strigidorsa</i>	Specimen	Namdapha TR, Changlang district	Dutta (1999)
Beech marten <i>Martes foina</i>	Skin	Sape, Sarli, Lower Subansiri district	From this study
Yellow-throated marten <i>Martes flavigula</i>	Seen Three seen One seen at 1700m, skins Skins Skin Skin One seen	Eagle Nest WLS, West Kameng district Eagle Nest WLS, West Kameng district Sape, Sarli, Lower Subansiri district Tato and Karo, West Siang district Nacho, Upper Subansiri district Chayang Tajo, East Kameng district Yak farm, West Kameng district	Athreya & Karthikeyan Unpubl. From this study " " " " Singh (1999)
Burmese ferret-badger <i>Melogale personata</i>	Stuffed specimen	Pakhui WLS., Seijusa, East Kameng district	Dutta (1999)
Otter <i>Lutra</i> sp.	Two seen Tracks, Spraints Tracks	Bhareli river bank, Tipi, West Kameng district Bhareli river bank, Tipi, West Kameng district Pakhui WLS, East Kameng district	From this study Dutta (1999) Athreya & Karthikeyan Unpubl
VIVERRIDAE			
<i>Viverricula</i> sp.	Tracks, skin	Khari, Pakhui WLS, East Kameng district	Athreya & Karthikeyan Unpubl
Small Indian civet <i>Viverricula indica</i>	Seen One seen One seen	Namdapha TR, Changlang district Khari, Pakhui WLS, East Kameng district Namdapha TR, Changlang district	Athreya and Johnsingh (1995), Athreya (1997) Dutta (1999) Dutta (1999)
Large Indian civet <i>Viverricula zibetha</i>	Seen Skin Stuffed specimen	Namdapha TR, Changlang district Bhalukpong, West Kameng district Sarli, Lower Subansiri district	Athreya and Jonsingh (1995), Athreya (1997) Dutta (1999) From this study
Spotted Linsang <i>Prionodon pardicolor</i>	Stuffed specimen Skin Skull, skin	Tato, West Siang district Nacho, Upper Subansiri district Mouling NP, East Siang	From this study From this study Katti et al. (1990) & Pratap Singh

Contd...

Common palm civet <i>Paradoxurus hermaphroditus</i>	Seen (Four occasions)	Tipi, Khari and Seijusa, Pakhui WLS, East Kameng district	Dutta (1999)
Masked palm civet <i>Paguma larvata</i>	Seen	Namdapha TR, Changlang district	Athreya and Johnsingh (1995), Athreya (1997)
	Seen	On way to Miging, East Siang district	Katti et al. (1990)
Binturong <i>Arctictis binturong</i>	Two seen	Tipi, Pakhui WLS, East Kameng district	Dutta (1999)
	Skin	Seijusa, East Kameng district	"
	Seen	Namdapha TR, Changlang district	Athreya and Johnsingh (1995), Athreya (1997)
HERPESTIDAE			
Small Indian mongoose <i>Herpestes auro-punctatus</i>	Seen on several occasions	Seijusa, Pakhui WLS, East Kameng district	Dutta (1999)
Crab-eating mongoose <i>Herpestes urva</i>	Seen	Namdapha TR, Changlang district	Athreya and Johnsingh (1995), Athreya (1997)
<i>Herpestes</i> sp.	One seen	Seijusa, Pakhui WLS, East Kameng District	From this study

Spotted linsang *Prionodon pardicolor*

This civet is reported to be nowhere common (Prater 1971) and is considered as the rarest small carnivore (Choudhury 1997). Van Rompaey (1995) has given a detailed account of this species. A stuffed specimen, partly damaged was seen in Tato, West Siang district. The local in possession of the skin had killed the animal in the nearby forests around 2000 m. He also claimed to have killed another individual the previous year from the same area. Measurements of the specimen seen: head and body length = 36.2 cm, tail = 23.3 cm. The numbers of rings on the tail were six. Another skin of this animal was seen in Nacho, upper Subansiri district. The other record of this civet from the state is from Mouling NP, East Siang district, where a skin was seen (Katti et al. 1990 and Pratap Singh pers. comm.).

Threats: Not known. Occasionally killed in snares or traps laid for some other animal.

HERPESTIDS

Three species of herpestids are known to occur in the state. They are the small Indian mongoose *Herpestes auro-punctatus*, common mongoose *H. edwardsii* and crab-eating mongoose *H. urva*. During the survey, only one unknown *Herpestes* sp. was sighted in

Pakhui WLS crossing a forest path. Dutta (1999) reported sighting *H. auro-punctatus* from the same area on several occasions. Athreya & Johnsingh (1995) and Athreya (1997) report the presence of *H. urva* from Namdapha Tiger Reserve (Table 1 and Fig. 2).

Threats: Not known

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