

Mustelids, Viverrids and Herpestids of Tripura

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TRIPURA IS A SMALL STATE located in the northeastern part of India with 10,470 km² area. It is one of the richest areas with regard to biodiversity (Gupta, 1998). This richness can be attributed to its unique biogeographical and zoogeographical locations. Although Tripura is a part of Indian sub-region of Oriental zoogeographical regions yet the flora and fauna in Tripura bear a close affinity with the Indo-Malayan and Indo-Chinese sub-regions. Tripura also has close affinity with Ethiopian and Palearctic zoogeographical regions. Assam and adjoining areas (Tripura inclusive) served as a great faunal gateway, through which not only the Indo-Chinese and Indo-Malayan elements of the Oriental fauna, but also of Ethiopian and Palearctic could spread to India (Chivers 1986, Gupta 1998). In more recent times, a geographical and climatic discontinuity has developed between Assam and the rest of India, which is visible at the region of Garo-Rajmahal gap by distinctive dispersal breaks. These breaks have since acted as filters and barriers in the effective dispersal of mammals either way. As a result of this the Assam region which also includes Tripura, has remained the western most boundary of the distribution range of many of the Indo-Chinese and Indo-Malayan mammals (e.g. certain squirrels) and the eastern most limit of the distribution of many peninsular species (e.g. spotted deer).

Almost 70% of the total area in the state is covered by hills. Seven parallel hill ranges run across the state from north to south, and at least one major river flows in between

the adjacent hill ranges. About 61% of geographical area (6292 km²) of the state is forest area, of which the reserved forests makes up for about 39% and remaining 22% unclassified Government forests (the erstwhile Protected Forests until 1982). The forest cover is about 52.8% (5,538 km²) of total geographical area (Forest Survey of India, 1995), of which the dense forest (>40% cover) account for 17.3%, and open forest (<40% cover) 35.5%. On the basis of composition, the forests of Tripura can be classified into following five major classes: (i) Hardwood (miscellaneous) forests (1829 km²); (ii) Hardwood (miscellaneous) mixed with bamboo (484 km²); (iii) Bamboo forest (988 km²); (iv) Plantations (2,066 km²); and (v) Open scrub (resulting from shifting cultivation) (875 km²). About 6% (603 km²) of total land area of the state is protected in the form of four wildlife sanctuaries. On an average about 55,000 tribal families practice shifting cultivation clearing roughly 35,000 to 40,000 ha of forest annually.

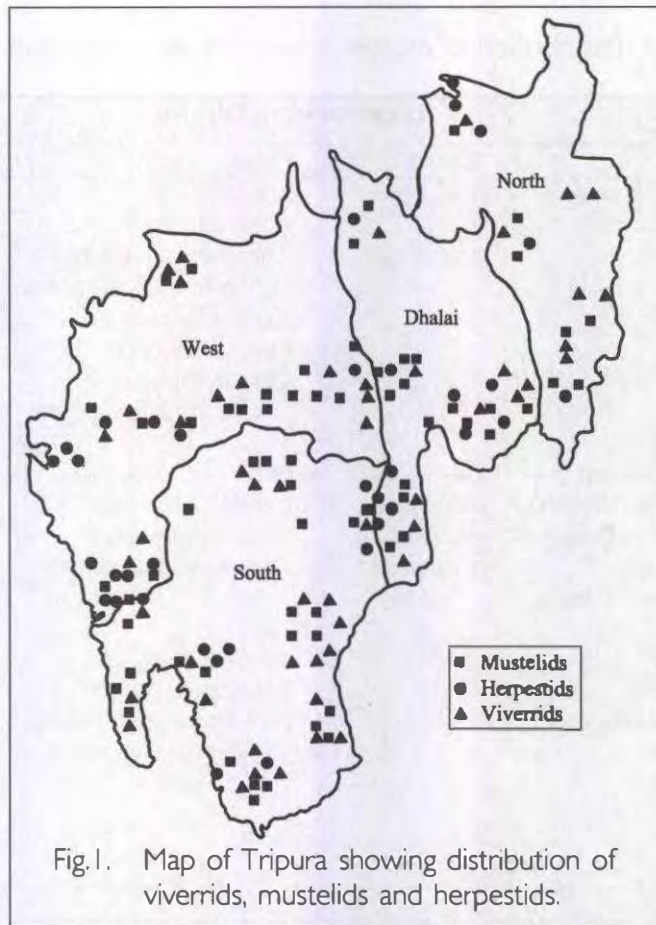
STATUS OF WILDLIFE IN TRIPURA

Early records of the faunal diversity of Tripura are available from Blyth (1844, 1847), Sterndale (1884), Pocock (1939) and Khajuria (1954, 1956). These descriptions are mostly on large mammalian species such as rhinoceros *Rhinoceros unicornis* [a place in Dhalai district in Tripura is called 'Gandachhara', because large populations of rhinos (locally called as 'Ganda') existed there in the past], elephants, tigers, leopards, bears and primates. Prater (1971) has mentioned presence of slow loris in Tripura.

Table I. Distribution of mustelids, viverrids and herpestids in Tripura.

Locations in the Districts			
North	Species	Dhalai	Species
Rangauti, Tilagaon, Hirachhara, Murtichhara	small clawed otter, hog badger	Maujachhara, Ghagrachhara Manikpur, Chhamanu, Durgachhara, Gandachhara, Debchhara, Central Catchment, Manu-Chailangta, Ultachhara, Sipasing, Sukraichhara, Jarulchhara	Assam badger, marten, small clawed otter, hog badger
Tilagaon, Bilaspur, Panisagar, Sonamukhi, Dasmanipara, Sunitipur, Gachirampur, Lambachhara, Bangsu	grey mongoose, small Indian mongoose	Bishnupur, Debchhara, Central Catchment, Manu-Chailangta, Chhamanu, Gandachhara	grey mongoose, small Indian mongoose
Jubrajnagar, Natugchhara, Sonamukhi, Satnala, Dasda, Sabnul, Tuichham a Simplong, Banglabari, Bangsu, Laljuni	civets	Lambuchhara, Daluchhara, Nalichhara Manuchailangta Manikpur, Chhamanu, Sardeng, Potachhari, Tuichhama,	civets
West	Species	South	Species
Brahmachhara, Badarghat, Dulki, Ratanpur, Charilam, Gajaria Kamlasagar, Birampur, Gamarichhara, Nidaya Jagatrapur, Kathalia, Jatrapur	hog badger, weasels, marten, Burmese ferret badger	Matai, Sonaichhari, Kalabari, Betaga, Madhabnagar, Mukchhari, Purbakalajhari, Ramnagar, Jarimura	marten, otter, small clawed otter, hog badger
Ulemchhara, Nunachhara, Brahmachhara, Hawaibari, Champabari, Teliamura, Simna, Sankhola, Charilam, Gajaria, Nidaya, Jagatrapur, Kathalia, Jatrapur	All herpestids except crab eating mongoose	Matai, Sonaichhari, Udaipur, R.K.Pur, Trishna, Tulamura, Srinagar, Amlighat, Samboom, Bijoypur, Harina, Gurakappa, Pilak, Bagafa, Baramura, Deotamura	All herpestids
Karaibari, Atharamura, Nunachhara, Teliamura, Simna, Sankhola, Sidhai, Charilam, Golaghati, Nidaya, Kathalia, Jatrapur,	civets, binturong	Trishna, Radhanagar, Sarasima, Amlighat, Harbatali, Srinagar, Magrum,	civets, spotted linsang binturong

Occurrence of six species of mustelids, five species of viverrids and three species of herpestids have been confirmed from Tripura.



The forest department reported around 6-7 tigers from the state during 1970-74. The census report on Manu Forest Division in 1972 confirms the presence of many species including elephant, sloth bear, Indian bison, leopard, hoolock gibbon, sambhar, hog deer, barking deer and wild dog.

The first scientific information on the status of wildlife in Tripura comes from Agarwal & Bhattacharya (1977) who described 31 species and sub-species of mammalian fauna based on field survey conducted during 1969-73. This list included one species of bat *Rousettus amplexi caudatus* and one subspecies of mongoose *Herpestes auro-punctatus birmanicus* new to the Indian region. They had also noted that several species, e.g. short nosed fruit bat *Cynopterus sphinx*, rhesus macaque *Macaca mulatta*, and the Irrawadi squirrel *Calloscisurus pygerythrus* are widely distributed throughout the state, whereas some other

species, e.g., slow loris, elephant, leopard, clouded leopard, golden cat which were said to be very common throughout the state, are now confined to the south-eastern portion (foot hills of Longtharai, Sakhan, Atharamura-Kalajhari belts) of the state. Bhattacharya & Chakraborty (1984) updated this list to 56 mammalian species belonging to 9 orders and 20 families. In 1989-90, based on a survey by Gupta & Mukherjee (1994) this list was further updated. During the survey 90 terrestrial mammal species from 65 genera and 10 orders were recorded. This makes up for about 19%, 48% and 100% of total terrestrial mammal species, genera, and orders, respectively, in India. Some of the important species were clouded leopard *Neofelis nebulosa*, leopard *Panthera*

pardus, Indian gaur *Bos gaurus*, elephant *Elephas maximus* and several species of primates.

Status of mustelids, viverrids, and herpestids

The information on the presence of different species of mustelids, viverrids, and herpestids is mostly based on the literature reviews, examination of working plans of different territorial forest divisions, management plans of sanctuaries and surveys conducted all over the state by the author as a part of three different projects on primates in Tripura. Based on the information collected by the above methods, the possible distribution locations of different species in the state have been described in the Table I and marked on the state map (Fig. 1). In the absence of proper census operations, it is not possible to work out the population estimates of different species.

MUSTELIDS

Following six genera and six species of mustelids are found in Tripura:

1. Eurasian otter *Lutra lutra*
2. Small clawed otter *Aonyx cinerea*
3. Yellow-throated martin *Martes flavigula*
4. Burmese ferret badger *Melogale personata*
5. Hog badger *Arctonyx collaris*
6. Yellow bellied weasel *Mustela kathiah*

The Eurasian otter and small-clawed otter are most commonly found mustelids in the state owing to wide ranging habitat available to these species practically all over the state. They mostly inhabit wetlands on densely covered small hillocks where suitable food is available. Other species are not very common in the state. In the absence of systematic census information on these species, the information on their presence and absence is only available from different parts of the state based solely on reports by forest staff, local people and records of certain amateur naturalists.

VIVERRIDS

Following five species of viverrids are reported (Sterndale 1884, Pocock 1939, Prater 1971, Singh 1896, Menon 1975, Agarwal & Bhattacharya 1977) from Tripura.

1. Large civet *Viverra zibetha*
2. Small civet *Viverricula indica*
3. Palm civet *Paradoxurus hermaphroditus*
4. Spotted linsang *Prionodon pardicolor*
5. Binturong *Arctitis binturong*

While all the three species of civets are very common in their distribution throughout the state, the spotted linsang and the binturong are highly endangered and are rarely encountered. Of these two, the latter is still common in its distribution. Linsang is reported from areas under Kanchanpur, Manu, Teliamura, Gumti, and Bagafa forest divisions in North, Dhalai, West and South

districts. Binturong has been sighted on many occasions by the author from Gumti and Trisha Wildlife Sanctuaries in the South district. Recently in 1999, a status survey for binturong population was conducted in Trishna Wildlife Sanctuaries by the author.

HERPESTIDS

Following three species of mongoose are reported (Sterndale 1884, Prater 1971) from Tripura. This report is also based on secondary information through official records (mostly from Working Plans of territorial forest divisions) and reporting from local people sharing the forest habitat with certain herpestids.

1. Common mongoose *Herpestes edwardsii*
2. Crab-eating mongoose *H. urva*
3. Small Indian mongoose *H. javanicus*

Common mongoose and small Indian mongoose are widely distributed throughout the state. Their food requirements, which may include rats, snakes, lizards, frogs, insects and birds' eggs are also not specialized. On the other hand crab-eating mongoose is very rare in the state. These two species have been documented in the working plans of the various forest divisions (Kailashahr, Kanchanpur and Ambassa in the north district, Manu in Dhalai district and Gumti and Bagafa forest divisions in the south districts). Besides, all mongoose species have also been reportedly sighted in all the four districts in the state and three wildlife sanctuaries (Sepahijala, Gumti and Trishna) in the state (Pers. Comm. with various forest officers, staff and personal observations).

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