



A Note on Hunting Common Palm Civet (*Paradoxurus Hermaphroditus*) in the Tropical Dry Evergreen Forests of Uluru Coastal Village, Kancheepuram district, Tamil Nadu, India

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Abstract

The use of wildlife in human culture is widespread and traditional hunting practices in the world also have their own social taboos. Tropical Dry Evergreen Forests are rich in biodiversity and the faunal species associated are under threat due to various activities. IRULA community largely involved in sporadic jobs, depends for their immediate needs on the local environment and that show distinct seasonal variation. The hunting incident took place at the Uluru village on July 2013. The hunted Common Palm Civet was a male and its measurements were taken. Though the hunting incident is sporadic in nature it appears to be occurring at regular intervals in this area for food and other purposes.

Keywords: IRULA Community; Hunting; Tropical Dry Evergreen Forest; Common Palm Civet; Kancheepuram; India

Introduction

The Common Palm Civet or Asian Palm Civet *Paradoxurus hermaphroditus* is small nocturnal arboreal carnivore of the Viverridae family [1-3] found across South and Southeast Asia to southern China and in many islands of the Greater Sundas, including the Indonesian island of Java [4-7]. Due to its fondness for the sap of the palm tree, it is commonly called as Toddy Cat and in Tamil Nadu the animal is called Tree-dog [6]. It occurs in a wide range of habitats (primary and secondary evergreen and deciduous forests, plantations, Swamp forests, mangroves, logged forests, edge habitats and is observed to be native to land and marine areas [2-10,35]. with an home range of 17 to 1.6 km² [11,13], up to an elevation of 2,400 msl [14]. They are found to co-exist in human altered habitats near urban areas as well as rural human habitations [2,15-18]. However, despite its wide distribution, limited scientific information is available on its behavioural ecology may be due to its nocturnal and arboreal

habits. Despite reliable records on its survival in the human-altered habitats [19], extensive habitat fragmentation [20]. and the non-availability of day-beds and fruit/food [21]. were the key factors for the negative effects on the animal in altered environments. Little is known on its adaptability to the anthropogenic habitats [4,7,19], population and adaptability to altered habitats. The species now is listed as of 'Least Concern' on the IUCN Red List of Threatened Species [2]. However, it appears that the species is under threat and the major conservation threats are due to habitat loss and poaching [22].

The study was done in Ulluru village (12° 19' 53" N, 80° 02' 01" E) that comes under the jurisdiction of Edaikazhinadu in Cheyur taluk, Kancheepuram district, Tamil Nadu. It is about 100 km from Chennai and 53 km from Puducherry Union territory (Figure 1). The climate in the district is hot and humid and the area receives the rain from both southeast and northeast monsoons. The

humidity ranges between 58 to 84% and the temperature ranges from 20°C to 43°C. Of the total geographic area in the district, the forest cover is 23855.84 ha. Of the total 240 ha of Kurumpuram RF, the Edaikazhinadu covers an area of 200 ha. The elevation of the area ranges from 0.5 m to 230 m above msl. The topography and rainfall pattern has resulted this vegetation type [23] also confined to northern Ceylon and to the coastal regions of Coromandel [24-26]. Agriculture and fishing are the major significant occupation in these areas. The long coastal length is recognised for its ornithological significance [27,28]. The area is also known for historical importance since 1760 [29]. The major market areas here are the Vennangupattu and Kadappakkam about 27.5 km. Like other threatened ecosystems the Tropical Dry Evergreen Forest ecosystem (TDEF), which is unique and found in small patches is under various anthropogenic pressures such as browsing, lopping, grazing, removal of sizeable trees, firewood collection, and was speculated to have future potential that can sustain wildlife [26-28,50]. Besides other biodiversity, about 36 mammalian fauna including the Common Palm Civet have been reportedly found in the Tropical Dry Evergreen Forests of south India [29].

hunt the whole family involved make a plan of action in setting up to catch. Hunting seems to be usual among the IRULAS living at Kadappakkam and therefore that attracts no curious onlookers.



Figure 2: The IRULA hunting group.

Traditional hunting practices in the world have its own social taboos following a system of sustainability. Such taboos are widespread across regions, or limited to a certain ethnic group, clan or family [30-33]. IRULAS hunting practices are traditional and likely to be sustainable and are common among human groups who have been living for millennium in the same tropical forests. IRULA people, largely involved in sporadic jobs, are subject to the vagaries of immediate need and depend on important seasonal variations in availability of such resources. The people are reportedly good in traditional medicine [34]. IRULAS are good in using tracks and signs as a technique in capturing small carnivore hunting or capture without any ambiguity. A vast majority of IRULAS eke out their livelihoods by catching snakes, rats, termites and other wildlife [35] and they do not retain the parts (skins, claws, teeth etc.) as trophy as is learnt from interactions with the IRULA hunters. Mostly the animals hunted by them were used for their eating. Sometimes people from city or nearby areas while on travel if find IRULAS hunting or with the hunted animals would also purchase the game for use as food. It is important to note that some villagers have established contacts with IRULAS for purchasing the hunted animals, thus changing the hunting practices of the community. The IRULAS has little knowledge and not aware of law or enactment IRULA community do not directly involve in trade since the capture locality and bereft of information in small animal trade would be useful in tracking the individual other than the IRULAS involved in the trade.

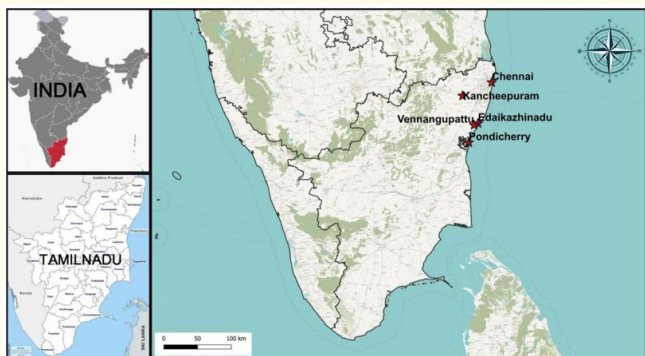


Figure 1: Map of the study area.

The incidence of hunting Common Palm Civet that took place at the Uluru village on 7 July 2013. Around 1100 hrs in the morning a group of people consisting of five males and one female were involved in this hunting activity (Figure 2). On enquiry it was learnt that the whole family consisting six persons belonging to the IRULA community from Kadappakkam involved in the hunt. They tracked the animal by its spoor and other marks of the animal. Later they fix the trap made of nylon fishing net (used fishing net discarded by fishermen) for catching the civet. Before venturing into the

The hunted Common Palm Civet was a male and the sex was assessed based on its morphological characters. The animal was weighing about 2.5 - 3.0 kg. The total length of the animal from snout to tail measured 103 cm, from head to body 1 - 45 cm long, snout length up to neck 12 cm. The foreleg measured 15 cm, and the hind leg measured 17 cm. The hind palm measured 6 cm and the tail was 51 cm (Figure 3 - 5). The hunting incident took place in July and was during the non-breeding season that the animal is reportedly solitary at this time [35]. Though the hunting incident is sporadic it appears to be occurring at intervals, based on further enquiries from these areas for food and other purposes. The hunters belong to IRULA community from Kadapakkam and the persons involved in this were consanguinity of the same family. It is unusual to see local tribes killing civets for meat. Locally made traps and arms used to hunt them and generally captured in the late evening or early morning when the animal is coming for its food [36-38]. Common Palm Civet confirmed active through camera traps is around 23:45 hrs at Sri Venkateswara National Park (Gupta pers. comm. 2013). They are solitary, nocturnal and largely arboreal. Common Palm Civet scats are considered to have commercial value [39,40]. In some parts of its distributional range the species is hunted for bush meat and pet trade and in southern China it is much hunted and trapped [41].



Figure 3-5: Photographic record of the hunted Common Palm civet.

Common Palm Civet *Paradoxurus hermaphroditus* is also reported from the adjacent areas of Puthupet scared groves (17 ha), Kurumpuram Reserve Forest (240 ha), T. Parankani Reserve Forest (1500 ha), Success Canyon (Nallakuthan Odai) and Pitchandikulam forests (30 ha), however, these forest holds about 38 species of mammals [42]. Though the biodiversity of tropical dry evergreen forest have been well reported forest fragmentation and increased human disturbance to these forest types [43]. The need for conservation of the forest type is also emphasized. However, the recent growth of the field of landscape ecology [44]

sounds a warning that while species and site planning are essential for effective biodiversity conservation, they are not sufficient. The coastal area along the east coast has rich bio-resource and biological diversity in terms of flora and fauna. Therefore, conservation of biodiversity through sensitizing people living in this area who are unaware of living amidst in the important ecosystem (TDEF). Initiatives on educating locals and among school children's should be made aware of the importance of their surroundings. The area is threatened by various anthropogenic activities is the present state of habitat loss and alterations, most species, particularly the species such as Common Palm Civet face an uncertain future? Hunting is likely to be a major threat to the species. Though enquiry revealed from the hunters was known to be used for food but there is no evidence of commercial trade in these area. However, it is reported that civet cats are sold by the Narikoravas (local tribesman) in the Periyar Tiger Reserve in 1997 [45] and is hunted for meat and fat for food and medicinal purposes in many regions [46]. The extent of persecution of Common Palm Civet in the coastal region of Kancheepuram district is not clearly known. Common Palm Civet is considered as pests to fruit plantations, where as it plays a significant role in dispersing the seeds of trees [37,47]. Remains threatened in the face of changing and developing landscape in the Western Ghats [48]. Though the species is a least concern exact population is not clearly known may constitute a significant threat. It is also persecuted as a pest [11] though it seems able to tolerate very high levels of persecution [2]. Dead individuals of this species were found with local tribes during a visit to Coimbatore in Tamil Nadu and Uttar Pradesh in India between 1998 and 2003, where it is killed for its meat and is a common urban commensal [11]. The oil extracted from the meat kept in the linseed oil in a closed earthen pot is used indigenously to cure for scabies [49]. In other parts of Asia its scat is used in coffee beans [50,51]. and as pets [52-54]. In southern China where it is extensively hunted [55] together with ongoing hunting pressure, particularly in northern South-east Asia, it is likely that the global population is in decline. Given the large areas with only minimal off-take, such declines are at present likely to be very shallow.

Conclusion

The Common Palm Civet known to eat toddy juice, fruits and figs (mango, coffee, pineapples, melons, and bananas) [37,56] rats, insects and molluscs [44,57] and is known as an omnivore among

the viverrids [58]. Though the species is known to feed on small vertebrates and invertebrates they also feed on domestic chickens, fishes (locals reported that the Common Palm Civet do feed on dry fishes). Since the animal appears to be highly frugivorous and important seed disperser plays a significant role in natural regeneration. As from the interactions with the IRULAS and further investigations on understanding the traditional knowledge to track down the animals before capture/hunting plan for action on a particular season confirmed with the fruiting season (April - September) in the TDEF ecosystem coincides [29]. Tropical forests are rich in biodiversity, and the use of wildlife in human culture is widespread. The impact of humans on wildlife is so pervasive that the very survival of many animal species in the world's tropical forests depends on our understanding and better managing that use. Moreover, the inter-relationships of wildlife and humans in such forests are so intricate that the social and economic well-being of humans in tropical forest countries often depends on good management of wildlife and other natural resources. Social taboos traditionally provide another safeguard against over harvesting certain species. These taboos can be widespread across a region, or limited to a certain ethnic group, clan or family. Taboos can be formal, as in the case of many other forest-dwelling peoples. However, all civet species except the Malabar Civet (*Viverra civettina*), are listed in Schedule II (Part II) under the Indian Wildlife (Protection) Act, 1972. It is imperative that we act now to ensure future sustainability of hunting in tropical forests if we are to address social needs, poverty alleviation, and conservation of the forests and their wildlife. The disturbance and scattered forests due to anthropogenic activities the species is still under threat.

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