

Habitat loss threatens brown palm civets in Western Ghats

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Habitat loss and fragmentation are major threats to the rarely-spotted brown palm civet (*Paradoxurus jerdoni*) in the Western Ghats, researchers warn.

Brown palm civets, also known as Jerdon's palm civets, a species endemic to the Western Ghats, occupy a crucial ecological niche as seed dispersers. As they inhabit areas where other large seed dispersers are either non-existent or rare due to human-induced factors, their presence is believed to play a vital role in promoting native rainforest growth in the Western Ghats.

In a recent paper, "Phenotypic variations, habitat suitability, and diel activity of the endemic brown palm civets," published in the journal *Geology, Ecology, and Landscapes*, the researchers found that in a total suitable area of 21,853 sq.km. in the Western Ghats, the brown palm civet was recorded in four well-defined blocks - in the South from Kalakkad to Anamalai and in the North in the Nilgiris, Bhadra and Sayadri. The study was con-



A brown palm civet captured in a camera trap in the Western Ghats.

ducted in collaboration with the Wildlife Institute of India; Sreehari Raman, a small mammal expert and assistant professor from College of Forestry, Kerala Agriculture University; and forest officials from the Mudumalai Tiger Reserve.

The researchers noted that the species was primarily found in the Anamalai, Periyar, Parambikulam, Kalakkad Mundanthurai and Meghamalai Tiger Reserves; Kodaikanal, Munnar forest divisions; and Srivilliputhur. These protected areas accounted for a significant proportion of the brown palm civet's habitat. The second-most important block was in the Nilgiris, encompassing

the Silent Valley and Mukurthi National Parks; Wayanad Wildlife Sanctuary; and Mudumalai, Nagarhole, Bandipur and Biligiri Ranganatha Tiger Reserves.

Sulekha J. Backer, one of the authors of the paper, said the mapping of the brown palm civet's habitats showed that their population was extremely fragmented. According to the researcher, the population of the brown palm civet became more sparse and discontinuous north of the Palghat gap. This was primarily due to habitat loss and other anthropogenic threats. Ms. Backer stated, "Further studies need to be done to understand the population

status of the species and whether they are in decline in their current habitats."

This may prove difficult as a result of 'the nocturnal and cryptic nature' of the species, lead author T.T. Shameer noted. He shared, "Most of the studies so far are mainly sighting records and there was limited information on their population and habitat." Further improving habitat quality would help in minimising threats for this species, he said. Nonetheless, researchers had recently rediscovered the species in habitats where it was believed that the brown palm civet was locally extinct, such as in Coonor. R. Sanil Associate Professor, Molecular Biodiversity Lab, Government Arts College in Udhagamandalam, said, "The fact that there were signs of their presence in these habitats is a source of optimism. However, the brown palm civet is dependent on tall, native trees for its survival. Its disappearance from local landscapes could negatively impact native forest regeneration, and allow for exotic, invasive flora to take over these landscapes."