

## First photographic record of Common Palm Civet *Paradoxurus hermaphroditus* from the mangroves of Andhra Pradesh, India

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### Abstract.

The Godavari Estuary is a regionally important mangrove forest located on the east coast of India. These mangroves are threatened by aquaculture ponds and predicted sea level rise. A 2014–2017 camera-trap survey for Fishing Cat *Prionailurus viverrinus* produced the first confirmed record of Common Palm Civet *Paradoxurus hermaphroditus* in these mangrove forests.

**Keywords:** estuary, Godavari, mangroves, camera-traps, small carnivore

Common Palm Civet *Paradoxurus hermaphroditus* is widely distributed in South and South-east Asia (Patou *et al.* 2010). In India, it mainly occurs in moist and dry deciduous forests at lower altitudes (Mudappa 2013) but is also known to use a wide range of other habitats such as coffee plantations, swamp forests, mangroves, villages, and urban environments (Duckworth *et al.* 1997). In some parts of its range, it is common in human-modified habitats (Krishnakumar & Balakrishnan 2003, Spaan *et al.* 2014). It is categorized as Least Concern on *The IUCN Red List of Threatened Species* (Duckworth *et al.* 2016). Common Palm Civet is primarily a nocturnal species and is partly arboreal (Gupta 2004, Muddappa 2013).

Common Palm Civets can be one of the most commonly camera-trapped small carnivores (e.g. Wahyudi & Stuebing 2013). However, there are few records of its occurrence in mangrove forests (Kar & Satpathy 1995, Khan 2008, Mallick 2011). Most of these records suggest its presence in habitats surrounding mangroves but not inside. In this note, we present a camera-trap record of a Common Palm Civet inside a mangrove forest on the eastern coast of India.

The Coringa Wildlife Sanctuary is in East Godavari district of Andhra Pradesh and lies at the northern part of a delta formed by Godavari River (16°59'N, 82°20'E). The Godavari River is the second longest river in India after the Ganges. After traversing 1,465 km it empties into sea in the form of two major distributaries: Vasista-Godavari and Gowthami-Godavari. At the confluence of the Gowthami-Godavari River and the Bay of Bengal is an extensive deltaic system referred to as the Godavari Delta. Around 236 km<sup>2</sup> of the mangrove forests are protected as the Coringa Wildlife Sanctuary (Ravishankar *et al.* 2004) but these are threatened by aquaculture ponds and predicted sea level rise.

A total of 21 camera-traps (Cuddeback Ambush) were used in 20 different surveys in the sanctuary between June 2014 to May 2017. In each survey, the camera-traps were left for a minimum of 25 consecutive nights. These camera-traps were active for 24 hours. The time delay between photographs was set to a minimum of 5 seconds and all camera-traps were placed at 20–40 cm from the ground.

On 17 February 2017 at 02h53 one camera-trap recorded a solitary Common Palm Civet (Figure 1). The station was located along the bank of Gullarasi Kaluwa, a subtidal creek that connects two larger creeks in the sanctuary (Figure 2). The habitat was a mangrove forest dominated by *Excoecaria agallocha* and *Avicennia marina*. During spring tides, water enters the site due to its proximity to the bank. Two nearest villages, Ramanapalem and Chinna Boddu Venkatapalem are at least 6 km away while the Kakinada Bay is around 3 km to the north of this site. Human influence around this site is limited to fishermen, crab collectors, and the occasional timber collectors.



**Figure 1.** Camera-trap image of a Common Palm Civet *Paradoxurus hermaphroditus* from Coringa Wildlife Sanctuary, Andhra Pradesh, India

Common Palm Civets are commonly reported by the locals in coconut plantations as well as from the villages that surround the mangrove forests but the species presence inside the sanctuary was unconfirmed. However, a single capture does not imply a regular use of

mangroves by this species; the animal might be vagrant visitor to these forests. The species has been reported to feed on other smaller vertebrates (Krishnakumar & Balakrishnan 2003, Maurya *et al.* 2017); it is possible that it was feeding on the rodents that tend to nest on the top of the mangrove trees.

Common Palm Civet is a widely occurring species and has been reported from different types of habitats, including human-dominated landscapes. In a study on the mammal diversity of Sunderbans Tiger Reserve in India, Common Palm Civet was reported to be a commonly occurring species in the reclaimed lands near to the mangroves (Mallick 2011). To the best of our knowledge, this is the first photographic evidence of Common Palm Civet inside a block of dense mangrove forest.



**Figure 2.** Mangroves near the trap location inside the Coringa Wildlife Sanctuary, Andhra Pradesh, India.

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