

## Biodiversity Record: Apparent predation of Sunda colugo by common palm civet

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**Subjects:** Common palm civet, *Paradoxurus musangus* (Mammalia: Carnivora: Viverridae); Sunda colugo, *Galeopterus variegatus* (Mammalia: Dermoptera: Cynocephalidae).

**Subjects identified by:** Ryan Jun Rong Ng, Charlene Yeong, and Craig Justin Tan.

**Location, date and time:** Singapore Island, Mandai Lake Road, in the compound of Singapore Zoo; 10 July 2024; 2043–2145 hrs.

**Habitat:** Suburban parkland and secondary forest.

**Observers:** Ryan Jun Rong Ng and Craig Justin Tan.



Fig. 1. Postero-ventral view of the civet carrying the colugo carcass in its mouth. Fig. 2. Frontal view of the civet with the colugo carcass on the branch of a *Syzygium polyanthum* tree (Photographs by: Craig Justin Tan).

**Observations:** A subadult common palm civet was observed carrying a dead juvenile Sunda colugo by its scruff at 2043 hrs about 3 m above the ground on a liana (Fig 1). The civet climbed up the liana with the colugo in its mouth to a horizontal branch of a *Syzygium polyanthum* tree. It climbed further up the tree where it then released the colugo from its mouth. The carcass laid in ventral recumbency on the branch. The civet peered down at the observers for about one minute

before beginning to feed on the colugo (Fig 2). The civet began to feed from around the head and neck region of the colugo from 2055 hrs by repeatedly biting and tearing the skin and muscle (see video at <https://vimeo.com/1020462608>). It continued to feed until 2059 hrs before resting beside the carcass. At 2106 hrs, the civet carried the carcass further up the tree and continued to feed. The dense foliage made it a challenge to have a clear view of the carcass and document the feeding process from thereon. The observers left the area 10 minutes after the civet stopped feeding at 2135 hrs. Checks of the tree and its surroundings in the daytime and evening the following day (11 July 2024) revealed no signs of both civet and carcass.

**Remarks:** Common palm civets and Sunda colugos are small mammals native to Singapore (Lim, 2007; Chua et al., 2012). Both species occur naturally and have breeding populations in the compound of the Singapore Zoo (Charlene Yeong & Craig Justin Tan, pers. obs.). The feeding ecology of the common palm civet has been studied in Singapore and other parts of its range, with results indicative of a largely frugivorous diet that also includes animals such as rodents, birds, and orthopterans (Joshi et al., 1995; Su & Sale, 2007; Nakashima et al., 2010; Fung et al., 2018; Tsuji et al., 2024). Apparently, common palm civets have not been observed to prey on similar sized mammals prior to this. Khan et al. (2019) note scavenging behavior by common palm civets on golden jackal roadkill and suggests potential predation on jackal pups from scat analysis. Another viverrid, the small-toothed palm civet (*Arctogalidia trivirgata*), has been observed preying on the Sunda slow loris (*Nycticebus coucang*) in Singapore in another rare documentation of predator-prey interaction involving a viverrid (Ang & Jabbar, 2023).

The arboreal and nocturnal nature of civets and colugos make them relatively difficult to study in the wild, with field observations of interspecific interactions being even rarer. The cause of death of the colugo featured in this record cannot be determined, but it is suspected to have been hunted and killed by the civet. Several civet food tree species, such as *Artocarpus fulvicortex*, *Diospyros blancoi*, *Ficus punctate*, and *Sandoricum koetjape*, were fruiting at the time of this observation (Craig Justin Tan, pers. obs.). These fruit trees, located within a 350 m radius of this predation event, fall within the known home range of common palm civets in modified habitats in Sabah, Malaysia (Nakashima et al., 2013). Hence, this predation event is likely more opportunistic in nature rather than a result of resource scarcity. Known predators of the Sunda colugo include the reticulated python (*Malayopython reticulatus*), long-tailed macaque (*Macaca fascicularis*) and changeable hawk-eagle (*Nisaetus cirrhatus*) (Lim, 2007; Yeong et al., 2019). This record is the first to identify *Paradoxurus musangus* as a possible natural predator of *Galeopterus variegatus*.

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