

## Biodiversity Record: Mating behaviour of a pair of Sunda colugo

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**Subjects:** Sunda colugo, *Galeopterus variegatus* (Mammalia: Dermoptera: Cynocephalidae).

**Subjects identified by:** Charlene Yeong and Craig Justin Tan.

**Location, date and time:** Singapore Island, Mandai Lake Road, in the compound of Singapore Zoo; 19 June 2024; 1845–2000 hrs.

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

**Observer:** Craig Justin Tan.

**Observation:** A rufous-coated colugo and a grey-coated colugo were observed clinging to the trunk of a monkey pot tree (*Lecythis pisonis*) that measured around 18 m high and 2.1 m in diameter at breast height. The rufous-coated colugo and grey-coated colugo were assumed to be male and female respectively (Craig Justin Tan, pers. obs.; Lim, 2007). The male colugo was positioned approximately 5 m above ground (measured with Hawke LRF-600 Pro), and the female was about 2 m above to his 10 o'clock position. Both colugos remained in this position from when they were first sighted at around 1500 hrs by other zoo staff (Felicia Goh, pers. comm.).

At 1854 hrs, the male became active as he peered at the observer and yawned (Fig. 1). At 1903 hrs, he moved slowly towards the female before quickly jumping up and mounting her. The female let out a rough and grating vocalisation as soon as the male covered her dorsum (similar to that described by Yeong & Seow, 2021). As the male bit the scruff of the female repeatedly, she continued to vocalise and attempted to bite the male's head. 49 seconds after the male mounted the female, he latched on to her scruff, raised his hind legs and pelvis, arched his back in kyphosis (Fig. 2), and commenced pelvic thrusts 11 seconds later. The entire process from when the male mounted the female to the end of copulation lasted 15 minutes and 15 seconds. A video of the behaviour can be viewed at <https://vimeo.com/1065022436>.

The male colugo subsequently let go of his bite and climbed up the tree. A grey-coated offspring was also seen clinging to the ventrum of the female as she lifted her tail to defaecate post-copulation (Fig. 3).

**Remarks:** Sunda colugos are native to Singapore and a wild population occurs naturally within the compound of the Singapore Zoo (Lim, 2007; Tan, 2022; Yeong et al., 2023). Reproductive behaviours in colugos have rarely been observed, although parturition and copulation have previously been observed within and outside the zoo grounds (Heng & Tan, 2020; Yeong & Seow, 2021; Goh, 2024). However, much remains unknown about colugo reproductive ecology and behaviour (Lim, 2007). In a 2006 video described by Dzulhelmi & Abdullah (2009), the male and female colugo exhibit a similar mating posture to this observation except for the male biting and latching on to the female's thoracic region instead of the scruff. Also, unlike the sightings of Yeong & Seow (2021) and Goh (2024), pre-copulatory behaviour, such as pursuit by the male or conspecific aggression, was not observed in this incident. This suggests variability in mating behaviour between individuals. The male resting near the female during the day could have contributed to the reduced aggression. Sexual receptivity by the female could also indicate oestrus even whilst rearing an unweaned, furred offspring. Reliable documentation and continued observations of mating events are required to better understand the reproductive behaviour of the Sunda colugo.



Fig. 1. Male colugo peering at the observer as he was becoming active.

Fig. 2. Male colugo mounting and performing pelvic thrusts on the female.

Fig. 3. A grey-coated offspring (indicated by arrow) clinging to the abdomen of the female colugo being revealed as the female lifted up her tail to defaecate post-copulation.

(Photographs by: Craig Justin Tan).

#### Literature cited:

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