

Biodiversity Record: Photographic confirmation of a female rufous-coated Sunda colugo

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

Subjects identified by: Charlene Yeong, Shaw Wen Yeak, Craig Justin Tan and Norman T-L. Lim.

Location, date and time: Singapore Island, Mandai Lake Road, in the compound of Singapore Zoo; 22 September 2022; around 1050–1110 hrs

Habitat: Suburban parkland and secondary forest.

Observer: Shaw Wen Yeak.

Observation: An adult colugo with a light rufous coat was observed resting on a tree (family Sapotaceae), about 3–4 m above the ground. It had rained earlier that morning, and the tree trunk and the colugo's coat appeared slightly wet. The colugo soon started to groom itself, and when it raised its left hind leg towards its head to lick its toes, a grey-coated offspring could be seen clinging transversely across its caudal ventrum. At the same time, the adult's genitals could be clearly seen, allowing it to be identified as a female (Fig. 1). Shortly later, the adult colugo climbed further up the tree, and continued to self-groom for around 15 minutes, after which it rested on the trunk. The offspring was observed to have hardly moved during this time.

Remarks: Sunda colugos are native to Singapore and occur naturally within the Singapore Zoo's compound (Lim, 2007; Yeong and Seow, 2021; Tan, 2022). Although commonly encountered, little is known about this cryptic, nocturnal and arboreal species. Literature on the species generally report that males are more richly coloured (e.g., brown or rufous) while females are duller (e.g., grey), particularly for individuals in the Malay Peninsula (Chasen & Kloss, 1929; Lim, 1967 as *Cynocephalus variegatus*). Based on examination of 89 specimens in the Lee Kong Chian Natural History Museum at the National University of Singapore, all 53 females were grey while males could be rufous or grey (Lim, 2007). Even in localities where females may be brownish (e.g., Tioman, Terutau, Langkawi, and Borneo islands), the males are more richly coloured than the females (Chasen & Kloss, 1929).

In Singapore and the Malay Peninsula, colugos with predominantly reddish-brown coats have been described to be males, while those with grey coats are either females or males (Lim, 1967 as *Cynocephalus variegatus*; Lim, 2007). However, there have been sightings of predominantly brown individuals with young (Lim, 2007; personal observations). While suspected to be males carrying young, this has never been confirmed due to the difficulty in obtaining unobstructed views of these animals' genitals in the field (see Dzulhelmi & Suriyanti, 2013). If so, this would indicate this species exhibits paternal care of offspring, although transfer of young between individuals has never been observed.

Recent rescue, rehabilitation and veterinary practices (Yeong et al., 2021), coupled with telemetry and ecological research on Sunda colugos in Singapore, have provided the opportunity to examine this species more thoroughly. Sunda colugos can be confidently sexed from external genitalia. Males have a prominent penis and prepuce, and adults normally have visibly descended testicles (Fig. 2). Female genitals are slightly hooded but are distinctly different to that of males (Fig. 3). Here, we present via photographic evidence, the confirmation of a brown-coated female carrying young in Singapore.



Fig. 1. Adult Sunda colugo with a light rufous coat carrying a grey-coated offspring. The adult's genitals were exposed during grooming and can be sexed as a female. Insert: close-up of genitals. (Photograph by: Shaw Wen Yeak).



Fig. 2. Genitals of an adult male Sunda colugo. Note prominent penis sheathed in a prepuce, and a pair of descended testicles. Fig. 3. Genitals of an adult female Sunda colugo. Note the slightly hooded genitals that are distinctly different from males. (Photographs by: Charlene Yeong).

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