

Naked bulldog bat from Sembawang

Subject: Naked bulldog bat, *Cheiromeles torquatus* (Mammalia: Chiroptera: Molossidae).

Subject identified by: Contributor.

Location, date and time: Singapore Island, Sembawang Vista; 6 Apr 2014; 2145 hrs.

Habitat: Urban housing estate with wooded areas nearby. Although the subject was found inside a concrete high-rise apartment building, it is not considered a habitat for the bat had merely strayed into it.

Observers: Jimmy Tan and contributor.

Observation: An adult male example was found inside an apartment on the 16th floor. As the windows did not have grills, the bat may have wandered inside in search or pursuit of insects attracted by the lights in the apartment. It was unable to find a high perch and was discovered crawling about the furniture.

It was removed by ACRES (Animal Concerns Research & Education Society) and subsequently transferred to WRS (Wildlife Reserves Singapore) for veterinary examination. After it was certified fit for release, the animal was brought to the summit of Bukit Timah Nature Reserve at dusk on 8 Apr 2014. It was placed at the base of a tall tree where it proceeded to climb up the trunk, tail-first (Fig. 1, video clip at: <http://www.youtube.com/watch?v=-3A83XxuLXg>).

At a height of about 3 m, it paused briefly to rest and familiarize itself with the surroundings. During this time, it yawned and revealed its impressive upper canines for a brief moment (Fig. 2, video clip at: <http://www.youtube.com/watch?v=dHqB6SqQxcU>). As it warmed up, the bat began to stretch all its limbs, including the wings (Fig. 3, video clip at: <http://www.youtube.com/watch?v=dLLiBUQuEXc>) in preparation for flight. At 1955 hrs, the bat resumed its climb up the tree and approached the crown, where it eventually took off at a height of approximately 15 m.

The bat was about 19.0 cm from the tip of the snout to the tip of the tail, and had a fore-arm length of 7.8 cm. Its weight was 165 g.

Remarks: The naked bulldog bat was last recorded in Singapore in March 2009, when a roost of four was found in the telecommunications building at the Bukit Timah Nature Reserve (Leong et al., 2009: 216). This species inhabits lowland to hill forest, and roosts gregariously in caves, old abandoned buildings and large hollow trees. It is an extremely fast and efficient flier which typically hawks for large flying insects high over forest, clearings and rivers. These large bats seem unable to take off directly from the ground, and require a long drop to gain lift. Thus, it needs to climb to the top of a tree to take flight (Kingston et al., 2006: 139). In Singapore, the naked bulldog bat is regarded as a 'critically endangered' species (Lim et al., 2008: 197). The present record shows that it may also forage over urbanised areas.

References:

- Kingston, T., B. L. Lim & Zubaid Akbar, 2006. *Bats of Krau Wildlife Reserve*. Universiti Kebangsaan Malaysia. 145 pp.
- Leong T. M., S. C. Teo & K. K. P. Lim, 2009. The naked bulldog bat, *Cheiromeles torquatus* in Singapore – past and present records, with highlights on its unique morphology (Microchiroptera: Molossidae). *Nature in Singapore*. 2: 215-230.
- Lim, K. K. P., R. Subaraj, S. H. Yeo, N. Lim, D. Lane & B. Y. H. Lee, 2008. Mammals. In: Davison, G. W. H., P. K. L. Ng & H. C. Ho. *The Singapore Red Data Book. Threatened Plants & Animals of Singapore*. Nature Society (Singapore). pp. 190-207.

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Fig. 1. Dorsal view of adult male naked bulldog bat reverse-climbing up a tall forest tree at the summit of Bukit Timah Nature Reserve on 8 Apr 2014 at 1920 hrs. While climbing, the limb coordination sequence was consistently as follows: 1) right foot (RF) – 2) left hand (LH) – 3) left foot (LF) – 4) right hand (RH). Photograph by Leong Tzi Ming



Fig. 2. Frontal view of the bat yawning while resting on the tree at 1949 hrs, its massive upper canines were clearly noticeable.



Fig. 3. Lateral view of the bat at 1953 hrs as it unfolded its right wing from the subaxillary pouch, followed by brief stretching.

Photographs by Leong Tzi Ming