

First record of the long-winged tomb bat in Singapore

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Subject: Long-winged tomb bat, *Taphozous longimanus* (Mammalia: Chiroptera: Emballonuridae)

Subject identified by: Robert C. H. Teo.

Location, date and time: Pulau Ubin, Chek Jawa Wetlands; 8 December 2017; before 2359 hrs

Habitat: Intertidal sand and mud flats

Observer: Mohamed Bari.

Observation: An example was caught in a mist net set up for shorebirds. As the bat had died shortly after extrication from the net, it was preserved and subsequently deposited at the Zoological Reference Collection (ZRC) of the Lee Kong Chian Natural History Museum, at the National University of Singapore, under the catalogue number ZRC 4.10563.

The bat was examined on 11 December 2017, and determined to be an adult female. The following measurements were taken: forearm: 59.1 mm, tail: 27.9 mm, ear: 16.8 mm, weight: 24.0 g.

The pelage on the body was dark brown dorsally (Fig. 1) and light brown ventrally (Fig. 2 & 3). The wings are attached at the ankles (Fig. 4), and have well-developed, radio-metacarpal pouches covered with light brown fur (Fig. 5). The dorsal surfaces of the wing membranes are covered with light brown fur from the side of the body to about half the length of the humerus and sparsely covered with light brown fur around the elbow, between the upper arm and the forearm, and near the length of the forearm (Fig. 1). The ventral surfaces of the wing membranes are densely covered with whitish fur from the side of the body to about half the length of the humerus, around the elbows and between the upper arms and forearms, and light brown fur near the length of the forearm (Fig. 2). The dorsal surface of the interfemoral membrane was covered with light brown fur to about a third of the length of the femurs (Fig. 6). The ventral surface of the interfemoral membranes are densely covered with whitish fur to about a third of the length of the femurs. The legs are covered with short, dark brown fur and the feet have sparse long hairs (Fig. 4). The dark brown tail tapers to a rounded tip (Fig. 1 & 6). There is a distinct transverse fold of skin on the chin which is not covered with fur but sparse hairs (Fig. 7).

Remarks: This is the first record of *Taphozous longimanus* from Singapore (see Baker & Lim, 2012). The pouched tomb bat (*Saccolaimus saccolaimus*) and the black-bearded tomb bat (*Taphozous melanopogon*) are two species in Singapore that may be confused with the long-winged tomb bat. In comparison, the pouched tomb bat is dorsally blackish brown and ventrally white, lacks metacarpal pouches and has bare or sparsely furred legs. The black-bearded tomb bat has a furred chin with no throat pouch. Its wing membrane is attached to the side of the leg above the ankle, its tail thickened near the tip, and the fur on the flight membrane is less extensive (Francis, 2008: 205).

References:

- Baker, N. & K. K. P. Lim, 2012. *Wild Animals of Singapore. A Photographic Guide to Mammals, Reptiles, Amphibians and Freshwater Fishes*. Updated edition. Draco Publishing and Distribution Pte. Ltd. and Nature Society (Singapore). 180 pp.
- Francis, C. M., 2008. *A Field Guide to the Mammals of South-east Asia*. New Holland Publishers (UK) Ltd. 392 pp.



Fig. 1. Dorsal view of *Taphozous longimanus* (ZRC 4.10563) with left wing spread out.



Fig. 2. Ventral view with left wing spread out showing extensively furred flight membrane.



Fig. 3. Lateral view of the bat.

Photographs by Robert C. H. Teo



Fig. 4. Ventral view showing wing attached at ankle.



Fig. 5. Ventral view showing well-developed radio-metacarpal pouch covered with fur.



Fig. 6. Dorsal view showing the tail and the extent of fur on the wing and interfemoral membranes.



Fig. 7. Ventral view showing unfurred chin with transverse skin fold.

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