

New record of the Horsfield's large-footed myotis in Singapore

Subjects: Horsfield's large-footed myotis, *Myotis horsfieldii* (Mammalia: Chiroptera: Vespertilionidae).

Subjects identified by: Contributors.

Location, date and time: Singapore Island, Upper Peirce Reservoir west, inlet next to Bukit Timah Expressway; 24 January 2006; at dusk.

Habitat: Concrete drain culvert opening to freshwater reservoir, surrounded by secondary forest. The bottom of the drain culvert was flooded with water.

Observers: Wang Luan Keng, Andrew Tay, Subaraj Rajathurai, Tan Heok Hui, Martyn E. Y. Low, Tommy H. T. Tan & Kelvin K. P. Lim.

Observation: A colony of these bats was found inside a drain culvert by the reservoir during a faunal survey. A mist net was placed at the entrance of the culvert before dusk. Bats began to emerge as the sun was setting and about ten individuals were caught in the net. Except for a female of fore-arm length 35.8 mm which was collected as a voucher specimen (attached picture shows it in life), the other bats were released. They flew out over the reservoir.



Fig. 1. Dorso-lateral view of *Myotis horsfieldii* (ZRC 4.8147) in crouching position. Photograph by Kelvin K. P. Lim

Remarks: The voucher specimen is preserved and catalogued as ZRC 4.8147 in the Zoological Reference Collection of the Lee Kong Chian Natural History Museum at the National University of Singapore. Its identity as *Myotis horsfieldii* was determined after close examination of the specimen, particularly its dentition.

Myotis horsfieldii is a member of the subgenus *Leuconoe*. These bats are characterised by their large feet which are over half the length of their tibia, and by the flight membrane being attached to the ankle or to the side of the foot, apparently an adaptation to their mode of foraging which involves sticking their feet into the water to glean prey from the surface.

Myotis horsfieldii is distinguished from other species of large-footed myotis by the following features: adult forearm length of between 34 and 39 mm; fur greyish-brown above, grey to dark grey beneath; second upper premolar slightly smaller than the first and only slightly intruded; flight membrane dark grey, inserted at the side of its foot between 1 and 2 mm from the base of its outer toe (Fig. 2). This species is widespread and common in Peninsular Malaysia (Kingston et al., 2006: 131; Francis, 2008: 233-234).

Although herein recorded from Singapore for the first time, it is likely that *Myotis horsfieldii* has previously been misidentified as the similar *Myotis adversus*, the Australasian large-footed myotis (see: Yang et al., 1990; Teo & Rajathurai, 1997: 367, 413; Pottie et al., 2005: 244; Baker & Lim, 2008: 148). However, the presence of the latter species in the Malay Peninsula is apparently unconfirmed (Kingston et al., 2006: 43; Francis, 2008: 234).

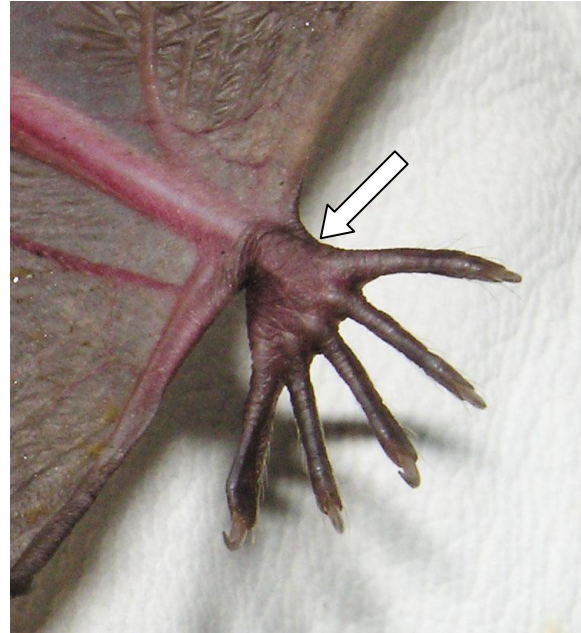


Fig. 2. On *Myotis horsfieldii*, the flight membrane is inserted at the side of the foot (indicated by arrow). Photograph by Kelvin K. P. Lim

References:

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