

New Geographic Records of the Flying Fox Bat Fly *Cyclopodia horsfieldi* de Meijere, 1899 (Diptera: Hippoboscoidea) from the Philippines

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Abstract. This paper presents new geographic records for the nycteribiid bat fly *Cyclopodia horsfieldi* de Meijere, a widespread Old World endemic species parasitic on flying foxes. Additionally, this account represents the first published record of *C. horsfieldi* on Tawi-Tawi Island and in the Bicol Peninsula (southern Luzon).

Key words: Bicol, flying foxes, Nycteribiidae, Tawi-Tawi

Flying foxes host a unique assemblage of parasitic species. The most common ectoparasitic arthropods found on flying foxes are bat flies and mites, which typically thrive on the pelage and wing membrane of their respective hosts. Endoparasitic helminths also inhabit the internal organs of the host, including the viscera and lungs. Furthermore, flying foxes have been reported to harbor a diverse range of blood-borne parasites and viruses. This paper presents new locality records for *Cyclopodia horsfieldi* de Meijere, a widespread nycteribiid bat fly parasitic on the flying fox genera *Acerodon* Jourdan and *Pteropus* Brisson in the Philippines. Bat fly specimens were collected during various fieldwork surveys conducted across the Philippines. Bat hosts were captured using mist nets placed in different areas within forest ecosystems at study sites. Prior to identification, specimens were preserved in 95% ethanol and examined under a Leica S9D dissecting microscope. Flying fox bat flies were identified following Theodor's (1963) description. Voucher specimens will be deposited at the National Museum of Natural Science in Taichung, Taiwan.

Order Diptera
Family Nycteribiidae
Subfamily Cyclopoidea

Cyclopodia horsfieldi de Meijere, 1899

Cyclopodia horsfieldi de Meijere, 1899. Tijds. Ent. 42: 153. Type locality: Indonesia (Java).

Material examined. PHILIPPINES: LUZON: ex. *Pteropus vampyrus* (Linnaeus): 1♂ (NMNS 8722-15), 1♀ (NMNS 8722-16), Libmanan municipality (13. 690617N, 122. 978343E), Camarines Sur, V. 2015, coll. H Centeno. (**New locality record, Fig. 1A**) **PALAWAN:** ex. *Pteropus hypomelanus* Temminck: 1♀ (NMNS 8722-17), Ursula Island (8. 342080N, 117. 517113E), Bataraza municipality, 27.VI.2019, coll. R Giganto & A Santillan. **PANAY:** ex. *Pteropus pumilus* Miller: 2♂♂ (NMNS 8722-18, NMNS 8722-19), 1♀, Barangay Jayobo (11. 102763N, 122. 408952E), Lambunao municipality, Iloilo City, coll. AKS Amarga & DAP Fernandez. **CEBU:** ex. *P. hypomelanus*: 1♂, 1♀, Alcoy, 2015, local collector; ex. *P. pumilus*: 2♂♂, Alcoy, 2015, local collector. **TAWI-TAWI:** ex. *P. vampyrus*: 3♂♂ (NMNS 8722-20, NMNS 8722-21, NMNS 8722-22), Barangay Malacca (5. 071837N, 119. 885804E), Panglima Sugala municipality, coll. AKS Amarga. (**New locality record, Fig. 1A**)

Cyclopodia horsfieldi is one of the two species in the genus *Cyclopodia* Kolenati found in the Philippines. This species is widely distributed across Southeast Asia and has been recorded on various species of flying foxes, particularly in the genera *Acerodon* and *Pteropus*. In the Philippines, *C. horsfieldi* is present in all faunal regions and has previously been recorded on the following islands: Luzon, Mindoro, Busuanga, Culion, Palawan, Ursula, Balabac, Panay, Guimaras, Negros, Samar, Leyte, Camiguin, Mindanao, and Jolo (Theodor 1963; Cuy 1980; Amarga & Hastriter 2023a). Recently, Amarga & Hastriter (2023b) reported the presence of *C. horsfieldi* on Cebu Island.

This report represents the first documented occurrence of *C. horsfieldi* on the Bicol Peninsula in southern Luzon. Previous records for this species on Luzon Island were documented by Cuy (1980) in Laguna and Quezon provinces and by Ferris (1925) from an

unspecified *Pteropus* species collected in Bangui, Ilocos Norte. Additionally, this report marks the first record of *C. horsfieldi* on Tawi-Tawi Island and represents the southernmost provincial distribution of *C. horsfieldi* in the Philippine archipelago.

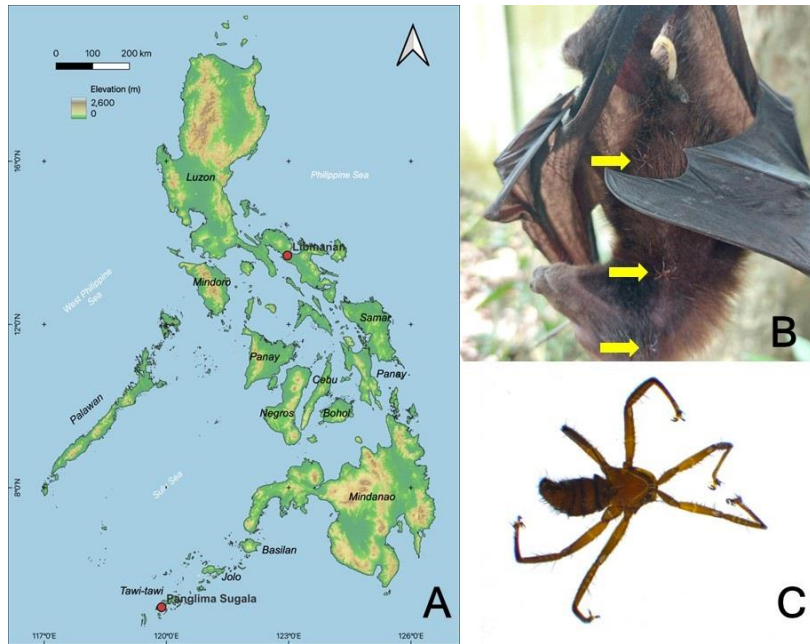


Figure 1. *Cyclopodia horsfieldi* de Meijere and its host *Pteropus vampyrus* (Linnaeus): (A) New locality records (red dots) of *C. horsfieldi* on Luzon and Tawi-Tawi; (B) *C. horsfieldi* foraging on the host pelage, in situ; (C) male *C. horsfieldi* collected from Tawi-Tawi Island (ventral view).

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Cyclopodia horsfieldi de Meijere, 1899 (雙翅目：蠅蠅總科) 之菲律賓新地理紀錄

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摘要：本文介紹了廣泛分佈於古北界的狐蝠寄生物種 *Cyclopodia horsfieldi* de Meijere, 1899 的新地理紀錄。此外，這筆紀錄也代表了本種在塔威塔威島以及比科爾半島(呂宋島南部)的首次報導。

關鍵字：比科爾、狐蝠、蛛蠅科、塔威塔威