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New Records of Ectoparasitic Flies (Diptera: Streblidae, Nycteribiidae) Associated with Bats (Mammalia: Chiroptera) from Samar Island, Philippines

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Abstract. This paper reports additional island records of bat flies from the genera *Brachytarsina*, *Leptocyclopodia*, and *Megastrebla* on Samar Island, Philippines. Furthermore, this documentation represents the first published account of streblid bat flies in Samar.

Keywords: Chiroptera, ectoparasites, Nycteribiidae, Streblidae

Ectoparasitic insects associated with bats in Samar are poorly documented, especially bat flies (Hippoboscoidea). To date, only two species of bat flies have been recorded in Samar, both of which are nycteribiid species (Baltazar, 1990). In this paper, we present additional new island records of bat flies, along with the first published account of the family Streblidae on Samar Island. From June 26 to 30, 2017, a rapid biodiversity assessment was conducted in Catubig Watershed, Barangay San Isidro, Las Navas municipality, Northern Samar province, Samar Island, Philippines. During the fieldwork, nine species of bats (Chiroptera) were recorded, belonging to nine genera representing the families Hipposideridae, Minopteridae, Pteropodidae, and Rhinolophidae. Ectoparasitic arthropods were collected from the captured bats and carefully removed using fine-tipped forceps. Bat fly specimens were preserved in 95% ethanol and examined using a Leica S9D stereomicroscope. Voucher specimens will be deposited at the National Taiwan Normal University. The collected bat flies are as follows:

Family Streblidae Kolenati, 1863

Brachytarsina weneri (Jobling, 1951)

Material examined. PHILIPPINES: SAMAR: On *Hipposideros diadema*: 2♀♀, Northern Samar, Catarman, Las Navas municipality, Barangay San Isidro, Catubig Watershed, 27-29.VI.2017, coll. AK Amarga.

Previous Philippine records: Batan, Bohol, Luzon, Marinduque, Mindanao, Mindoro (Cuy, 1980a; Baltazar, 1990; Alvarez et al. 2016, Amarga & Phelps, 2021; Amarga & Amarga, 2023). **New record for Samar.**

Megastrebla parvior Maa, 1962 (Fig. 1A)

Material examined. PHILIPPINES: SAMAR: On *Eonycteris spelaea*: 1♀, Northern Samar, Catarman, Las Navas municipality, Barangay San Isidro, Catubig Watershed, 27-29.VI.2017, coll. AK Amarga.

Previous Philippine records: Balabac, Batan, Cebu, Leyte, Luzon, Marinduque, Mindanao, Mindoro, Negros, Palawan, Samal, Siargao (Cuy, 1980a; Baltazar, 1990; Alvarez et al., 2016; Amarga et al., 2017; Amarga & Phelps, 2021; Amarga & Hastriter, 2022; Amarga & Amarga, 2023). **New record for Samar.**

Family Nycteribiidae Samouelle, 1819

Leptocyclopodia ferrarii mabuhai Maa, 1975 (Fig. 1B)

Material examined. PHILIPPINES: SAMAR: On *Cynopterus luzoniensis*: 5♂♂, 2♀♀, Northern Samar, Catarman, Las Navas municipality, Barangay San Isidro, Catubig Watershed, 27-29.VI.2017, coll. AK Amarga.

Previous Philippine records: Camiguin, Cebu, Guimaras, Leyte, Luzon, Mindanao, Mindoro, Negros, Panay (Cuy, 198b; Baltazar, 1990; Alvarez et al., 2016; Amarga & Hastriter, 2023). **New record for Samar.**

Leptocyclopodia simulans (Theodor, 1959)

Material examined. PHILIPPINES: SAMAR: On *Ptenochirus jagori*: 2♂♂, 3♀♀, Northern Samar, Catarman, Las Navas municipality, Barangay San Isidro, Catubig Watershed, 27-29.VI.2017, coll. AK Amarga.

Previous Philippine records: Batan, Bohol, Camiguin, Cebu, Leyte, Luzon, Mindanao, Mindoro, Negros, Tablas (Cuy, 1980b; Baltzar, 1990; Alvarez et al. 2016; Amarga & Fornesa, 2020; Amarga & Hastriter, 2023; Amarga & Amarga, 2023). **New record for Samar.**

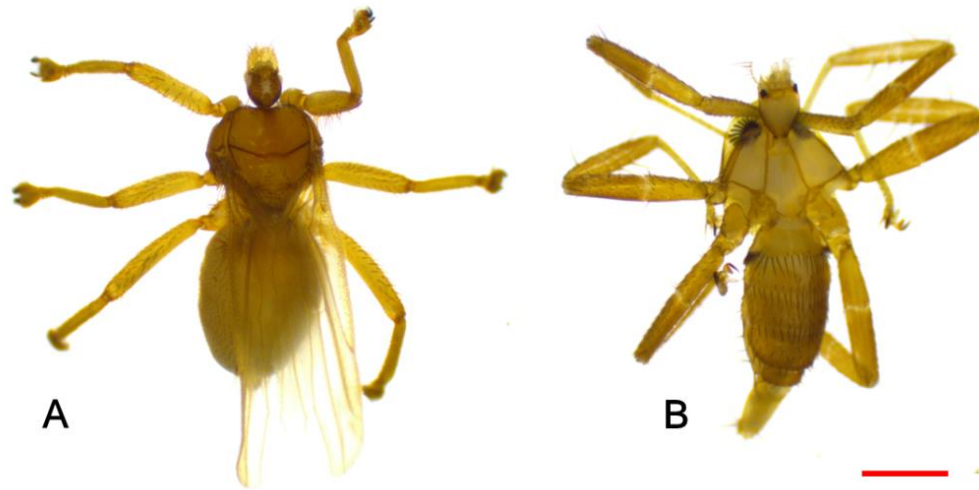


Figure 1. Representative bat flies occurring on Samar Island: (A) *Megastrebla parvior* (♀, dorsal); (B) *Leptocyclopodia ferrarii mabuhai* (♂, dorsal). Scale bar = 1mm.

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菲律賓薩馬島與蝙蝠（哺乳綱：翼手目）相關的外寄生蠅（雙翅目：蝙蝠蠅科、蛛蠅科）新紀錄

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摘要：本文報導產自菲律賓薩馬島(Samar Island)的 *Brachytarsina*, *Leptocyclopodia*, 和 *Megastrebla* 屬外寄生蠅的新紀錄，此外提供薩馬島首次關於蝙蝠蠅科的紀錄。

關鍵詞：翼手目、體外寄生蟲、蛛蠅科、蝙蝠蠅科