

**An annotated checklist of burrower bugs (Hemiptera: Heteroptera:
Cydnidae) from Bali (Indonesia) with new records***

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ABSTRACT. An annotated checklist of the Balinese Cydnidae is provided. Three species (*Chilocoris adelphus*, *Macroscythus dominiqueae*, *M. javanus*) are recorded for the first time from Bali, including the first Indonesian record for *M. dominiqueae*. *Fromundus pygmaeus* is recorded for the second time from the island. Our study increases the number of Cydnidae recorded from Bali to seven, and that known from Indonesia to 58.

KEY WORDS: Hemiptera, Heteroptera, Cydnidae, Indonesia, Bali, checklist, new records.

INTRODUCTION

Although almost 200 species of Cydnidae have been recorded in the Oriental Region, only 57 are known to occur in Indonesia (LIS 1994, 1995, 1999, 2000, HUFNAGEL & RÉDEI 2005). Most of the Indonesian burrower bug species were collected in Java, Sumatra, Borneo (Kalimantan) and Sulawesi, and only four have hitherto been reported from Bali, i.e., *Cydnus horvathii* (SIGNORET, 1881), *Adrisa nitidicollis* (STÅL, 1854), *Aethus philippinensis* DALLAS, 1851 and *Fromundus pygmaeus* (DALLAS, 1851). Because our knowledge of the Indonesian Cydnidae is still far from satisfactory, any new data are worth publishing.

* The paper is dedicated to Prof. Waclaw WOJCIECHOWSKI in recognition of his great contribution to the taxonomy and faunistics of Hemiptera.

We had the opportunity to study some Cydnidae specimens collected in the Bedugul Region of Bali (Tabanan Regency) in the vicinity of Lake Tamblingan. The smallest of Bali's north-western lakes, it is situated in the plateau area of Bedugul in the Sukasada District and is encircled by hills covered with rain forests (GÖLTENBOTH et al. 2006). However, the ecosystem of Lake Tamblingan is threatened owing to land conversion (DELINOM et al. 1997, ANSHARI et al. 2005, ADNYANA et al. 2006), so every report on the insect fauna of this region is worthy of being published.

We have identified four species: three of these are new records for the island, and one has been recorded for the first time in Indonesia. Our data increase the total number of known Balinese Cydnidae to seven and that known from Indonesia to 58.

MATERIALS AND METHODS

The study was based on Balinese specimens borrowed from the Royal Belgian Institute of Natural Sciences, Brussels (Institut royal des Sciences naturelles de Belgique, Bruxelles). All the specimens were collected in the Bedugul Region of Bali (Tabanan Regency) in 2004 and 2005 in the vicinity of Lake Tamblingan, at an altitude of 1200-1300 m asl.

The classification of the family follows PLUOT-SIGWALT & LIS (2008).

RESULTS AND DISCUSSION

Four species were identified: three are new for Bali, and one is new to Indonesia as a whole. This makes a total of seven species known from Bali and 58 from Indonesia. An updated checklist of Balinese species with new records is presented below.

Cydninae: tribe Cydnini

1. *Chilocoris adelphus* HORVÁTH, 1919

Chilocoris adelphus HORVÁTH, 1919: 260.

Type data: Lectotype male (designated by LIS 1991b: 300): Indonesia, South Celebes, Bua-Kraeng (Hungarian Natural History Museum, Budapest, Hungary).

Material examined: 4♀♀, 2-17.II.2004, I.G. 31.175, 1200 m, St. JAKL lgt.; 11♂♂, 8♀♀, 18-28-II-2004, 1200 m, I.G. 31.175, lgt. St. JAKL; 1♀, III-2004/1200 m, I.G. 31175, lgt. St. JAKL; 2♀♀, 1300 m, V-2005, I.G. 31.175, lgt St. JAKL.

General distribution: Indonesia (**Bali – first record**, Java, Sulawesi, West Timor) (LIS 1991b, 1994, 1999).

Distribution in Bali: Lake Tamblingan in Tabanan Regency (present paper).

2. *Cydnus horvathii* (SIGNORET, 1881)

Cydnopeltus horvathii SIGNORET, 1881a: 28.

Cydnus horvathii: LIS 1997: 405.

Type data: Lectotype male (designated by LIS 1994: 96): Indonesia, Java (Hungarian Natural History Museum, Budapest, Hungary).

General distribution: Indonesia (Bali, Java), South India (LIS 1994, 1997, 1999)

Distribution in Bali: Kintamani in Bangli Regency (LIS 1994).

Cydninae: Geotomini s. lato

3. *Adrisa nitidicollis* (STÅL, 1854)

Acatalectus nitidicollis STÅL, 1854: 232.

Adrisa nitidicollis: SIGNORET, 1881b: 208.

Type data: Lectotype male (designated by LIS 1992: 22): Indonesia, Java (Swedish Museum of Natural History, Stockholm, Sweden).

General distribution: Indonesia (Bali, Java, Lombok), Philippines (LIS 1992, 1994, 1996, 1999).

Distribution in Bali: Kintamani in Bangli Regency, Tamblang in Buleleng Regency (LIS 1994).

4. *Aethus philippinensis* DALLAS, 1851

Aethus philippinensis DALLAS, 1851: 118.

Type data: Lectotype male of *Aethus philippinensis* DALLAS, 1851 (designated by LIS 1993: 109): Philippines (Natural History Museum, London, U.K.).

General distribution: Australia, Bismarck Archipelago, India (South), Indonesia (Bali, Borneo, Flores, Halmahera, Java, New Guinea, Sulawesi, Sumatra, Timor), Malaysia, Nicobar Islands, Papua New Guinea, Philippines, Singapore, Solomon Islands (LIS 1993, 1994, 1996, 1999, 2006).

Distribution in Bali: general, without exact locality (LIS 1993); the occurrence of this species in Bali needs confirmation.

5. *Fromundus pygmaeus* (DALLAS, 1851)

Aethus pygmaeus DALLAS, 1851: 120.

Fromundus pygmaeus: LIS, 1994: 181.

Type data: Lectotype female of *Aethus pygmaeus* DALLAS, 1851 (designated by LIS 1994: 182): India (Natural History Museum, London, U.K.).

Material examined: 1♂, 1♀, 1200 m, VII.2004, I.G. 31.175, lgt St. JAKL.

General distribution: Widely distributed in the Oriental and Australian Regions; also known from the southern Asiatic parts of the Palearctic Region; the westernmost records come from the Afrotropical Seychelles (LIS 1994, 1996, 1999, 2006, 2013, HUFNAGEL & RÉDEI 2005).

Distribution in Bali: Very common in Indonesia, but in Bali reported only once from the beach at Kuta in Badung Regency, so far (Lis 1994); the locality reported here (Lake Tamblingan in Tabanan Regency) is the second in the island. These two localities (one in the north, the other in the south of the island) may suggest that *F. pygmaeus* is common in Bali as well.

6. *Macroscytus dominiqueae* J.A. LIS, 1991

Macroscytus dominiqueae J.A. LIS, 1991a: 209.

Type data: Holotype male: Vietnam, Cho-Ganh (Muséum National d'Histoire Naturelle, Paris, France).

Material examined: 1♂, 3♀, III-2004/1200 m, I.G. 31.175, lgt. St. JAKL; 1♂, 1300 m, V-2005, I.G. 31.175, lgt St. JAKL; 2♂♂, 1♀, I.G. 31.175, I-II.2005, 1300 m; 1♂, 2-17.II.2004, I.G. 31.175, 1200 m. St. JAKL lgt.

General distribution: Cambodia, China (Hong Kong, Yunnan), India, **Indonesia (Bali) – first record**, Laos, Malaya, Vietnam, Thailand (LIS 1991a, 1994, 2000, 2006, ZHU et al. 2010).

Distribution in Bali: Lake Tamblingan in Tabanan Regency (present paper).

7. *Macroscytus javanus* MAYR, 1866

Macroscytus javanus MAYR, 1866: 361.

Type data: Lectotype male (designated by LIS 1994: 240): Indonesia, Java (Naturhistorisches Museum Wien, Vienna, Austria).

Material examined: 1♀, 2-17.II.2004, I.G. 31.175, 1200 m, St. JAKL lgt.

General distribution: Indonesia (**Bali – first record**, Sumatra, Java, Engano, Lombok, Solor, Sumbawa, Sulawesi), Malaysia (Malaya), Singapore, Thailand (LIS 1994, 1999, 2000).

Distribution in Bali: Lake Tamblingan in Tabanan Regency (present paper).

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