



Plant bugs of the tribe Bothriomirini (Hemiptera: Heteroptera: Miridae: Cylapinae) from the Oriental Region: descriptions of eight new species and keys to Oriental genera and species of *Bothriomiris* Kirkaldy, *Dashymenia* Poppius, and *Dashymeniella* Poppius

ANDRZEJ WOLSKI^{1,2} & JACEK GORCZYCA³

¹Department of Biosystematics, Opole University, Oleska 22, 45-052 Opole, Poland

²Institute of Plant Protection-National Research Institute, Sośnicowice Branch, Gliwicka 29, 44-153 Sośnicowice, Poland.

E-mail: andrzej.wolski@uni.opole.pl

³Department of Zoology, University of Silesia, Bankowa 9, 40-007 Katowice, Poland. E-mail: jacek.gorczyca@us.edu.pl

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Abstract

Eight new species of the tribe Bothriomirini are described from the Oriental Region, namely *Dashymenia cognata* sp. nov., *Dashymenia colubrina* sp. nov., *Dashymenia conspersa* sp. nov., *Dashymenia tenmalai* sp. nov., *Dashymenia webbi* sp. nov., *Dashymeniella spatulatiformis* sp. nov., *Dashymeniella ulu* sp. nov., and *Dashymeniella viklundi* sp. nov. Five species are redescribed: *Bothriomiris dissimulans* (Walker), *B. lugubris* Poppius, *B. testaceus* Distant, *Dashymenia croesus* (Distant), and *Dashymenia remus* (Distant). Illustrations of the male genitalia, a color dorsal habitus photograph of the adult of most species, scanning electron micrographs of selected structures of *Bothriomiris dissimulans*, *Dashymenia tenmalai*, *Dashymeniella spatulatiformis*, and *Dashymeniella ulu* are given. An identification key to the Oriental genera and keys to species of the genera *Bothriomiris*, *Dashymenia*, and *Dashymeniella* are provided.

Key words: Hemiptera, Heteroptera, Bothriomirini, *Bakeriola*, *Bothriomiris*, *Dashymenia*, *Dashymeniella*, *Leprocapsus*, new species, taxonomy, revision, Oriental Region, keys

Introduction

The subfamily Cylapinae currently includes more than 360 valid species of which approximately 100 species are known from the Oriental Region (Schuh 1995; <http://research.amnh.org/pbi/catalog>; Gorczyca 2006; Gorczyca & Wolski 2007; Wolski & Gorczyca 2007, 2011; Gorczyca & Chérot 2008; Wolski 2008, 2010). The small tribe Bothriomirini, comprising 19 species included in six genera, is restricted to the Old World tropics (Gorczyca 2006). The majority of species are distributed in the Oriental Region (Gorczyca 2006) with only a few ranging north into Japan (Yasunaga 2000; Yasunaga & Miyamoto 2006) and south into Papua New Guinea and adjacent islands (Carvalho & Lorenzato 1978). One species is also known from the Afrotropics (Tanzania) (Gorczyca 2000). Of the fifteen Oriental species, most are known from Indonesia (7 species), Malaysia (4 species), and Myanmar (4 species). Two species occur in Taiwan and one in the Philippines (Gorczyca 2006) (Table 1).

In this contribution we present descriptions of eight new species of the Bothriomirini from the Oriental region and redescriptions of five previously described Oriental species. An identification key to the Oriental genera and keys to species of the genera *Bothriomiris*, *Dashymenia*, and *Dashymeniella* are also provided.

Material and methods

Observations were made using an Olympus SZX12 stereomicroscope and an Olympus BX50 optical microscope. Scanning electron micrographs were taken using a Hitachi S3000N Scanning Electron Microscope. Color photographs of the adults, taken with an ALTRA 20 digital camera, are not to scale.

Measurements were taken using an eyepiece (ocular) micrometer; all measurements are given in millimeters. Body length was measured from the apex of the clypeus to the posterior margin of the membrane. Body width was measured between the lateral margins of the hemelytra. Lengths and widths of the head were measured as follows: length, from the apex of the clypeus to the occipital carina; width, between the outer margin of each eye; diameter of eye, between the outer and inner margin of eye; length of the antennal and labial segments, between the base and apex. Lengths and widths of the pronotum were measured as follows: length, measured between the anterior and posterior margins; width of the anterior margin, between anterior angles; length of lateral margin, between the anterior and humeral angles; width of the posterior margin, between the humeral angles.

Dissections of male genitalia were performed using the technique described by Kerzhner and Konstantinov (1999). The terminology of the male genitalic structures follows Konstantinov (2003) and Cassis (2008). Terms for the endosomal sclerites in the Bothriomirini, proposed here and presented in figures 36, 39, 57–58, 60–61, 80, 84, 96, 99, 102, and 105 are abbreviated as follows:

DSS	sclerotized portion of the ductus seminis inside the endosoma;
AES	anterior endosomal sclerite, usually situated anteriorly of the endosoma, often folded or/and curved, embracing the DSS, usually partly membranous;
MES	mesial endosomal sclerite, usually situated between the AES and DSS, sometimes situated behind the DSS, when endosoma is viewed dorsally;