



A new record of the subfamily Isometopinae (Heteroptera: Miridae) from the Korean Peninsula

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Abstract

The subfamily Isometopinae (Heteroptera: Miridae) is recognized for the first time in the Korean Peninsula based on a single female specimen, *Isometopus amurensis* Kerzhner. Herein, diagnosis of a female specimen, illustration of female genitalia, and habitus figures with biological notes are provided.

Introduction

The subfamily Isometopinae Fieber, 1860 (Heteroptera: Miridae) are primarily tropical in distribution, and are considered to be predators (Wheeler, 2001), feeding on larvae and soft adults of bark-dwelling small arthropods like mites and psyllids (Kerzhner, 1998).

This subfamily had been treated as a separate family by some authors, distinguished by the presence of ocelli that are missing in other subfamilies of the Miridae (e.g., Carvalho, 1957; 1958). However, since Carayon (1958) placed Isopotopinae in Miridae on the basis of wing and genital characteristics of male and female, the Isometopinae has been taxonomically treated as a subfamily within the Miridae (Schuh and Slater, 1995). Additionally, the recent molecular-based phylogenetic study also supports its taxonomic position within the family Miridae (Jung and Lee, 2012).

Through the long term survey on the Korean fauna of the Heteroptera (e.g., Jung and Lee, 2011; Jung *et al.*, 2011a; b), we discovered a native isometopine, *Isometopus amurensis* Kerzhner, 1988 from South Korea. Thus, herein, we record its higher taxon, the subfamily Isometopinae, for the first time from the Korean Peninsula, and present diagnosis, habitus figures including genital illustration of the representative species with short biological notes.

Taxonomy

Subfamily Isometopinae Fieber

Type genus: *Isometopus* Fieber, 1860

Genus *Isometopus* Fieber

Isometopus Fieber, 1860: 259. Type species by subsequent designation (Distant, 1904: 484): *Acanthia intrusa* Herrich-Schaeffer, 1835.

Magnocellus Smith, 1967: 27 (syn. Akingbohunge, 1996: 38). Type species by original designation: *Magnocellus wacriensis* Smith, 1967, tropical Africa.

apex of 1st antennal segment yellowish brown. Femora dark brown in the middle. Genitalia (Fig. 1d): bursa copulatrix with distinct a pair of sclerotized rings; posterior wall extremely transparent, only with membranous plate and lacking spicules. **Male:** see Kerzhner (1988).

DIMENSIONS (IN MM): Female: body length 2.23; head width 0.78; vertex width 0.15; head height 0.52; rostral length 0.84; mesal pronotal length 0.38; basal pronotal width 0.95; width across hemelytra 1.23.

DISTRIBUTION: Russia (Far East) and Korea (middle part; new record).

MATERIAL EXAMINED: 1 female, 22.vii.2007, on *Taxus cuspidata* S. et Z. (Taxaceae), Hongcheon-eup, Hongcheon-gun, Gangwon-do, South Korea, leg. J. Seong.

DISCUSSION AND BIOLOGICAL NOTES. A single specimen of the species was collected on the bark of a live tree, *Taxus cuspidata* (Taxaceae) (Fig. 1a) with unidentified coccids. Therefore, we assumed this species fed on those coccids. The single specimen quickly responded to the presence of the collector by jumping along the trunk and branches of the tree rather than walking.

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