The Cylapinae form a unique plant bug subfamily within the Miridae. The majority of the species in this group are known to be associated with fungi. The faunae of the subfamily have been poorly documented, due to the specialized habit and habitat, and in part to the remarkable speed and agility of both immature and mature forms, which makes their capture by hand challenging (Wheeler 1994). Only 14 species have been known to occur in the Palearctic Region (Kerzhner & Josifov 1999), and the Japanese fauna has been represented by *Fulvius anthocoroides* (Reuter) and *Punctifulvius kerzhneri* Schmitz of the tribe Fulviini (Carvalho 1956, Yasunaga et al. 1999). Continuing efforts by the author and colleagues to clarify the Japanese cylapine fauna have resulted in the recognition of 16 species in six genera. Of these, eleven species were found to be undescribed, and three other species were not previously recorded from Japan. In addition, three unique undescribed species could not be accommodated by any known genus. This paper documents the Japanese cylapine fauna comprehensively, with descriptions of eleven new species. A new genus related to *Punctifulvius* Schmitz, *Yamatofulvius*, is diagnosed and described with a discussion on its phylogeny. *Fulvius dimidiatus* Poppius, *F. tagalicus* Poppius and *Peritropis advena* Kerzhner are recorded from Japan for the first time. A key is provided to distinguish Japanese tribes, genera and species of the Cylapinae. The zoogeography of the Japanese Cylapinae is also discussed.

**MATERIAL AND METHODS**

About 300 dried specimens of 28 species (including exotic ones) were examined. Depositories of the material are abbreviated as follows:

- **BMNH** Department of Entomology, the Natural History Museum, London, UK
- **ELKU** Kyushu University Entomological Collection, Fukuoka, Japan
- **HUES** Hokkaido University of Education, Sapporo, Japan

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**THE MIRID SUBFAMILY CYLAPINAE (HETEROPTERA: MIRIDAE), OR FUNGAL INHABITING PLANT BUGS IN JAPAN**


The plant bug subfamily Cylapinae of Japan is revised. This subfamily comprises species with a specialized biology, most of which are known to be associated with fungi. Sixteen species are recognized in six genera of three tribes. A new genus *Yamatofulvius* (type species *Y. miyamotoi* sp. n.) is proposed to accommodate three unique new species; its phylogeny is discussed. Eleven new species are described: *Bothriomiris capillosus*, *Bothriomiris gotohi*, *Cylapomorpha michikoae*, *Fulvius niveonotatus*, *Peritropis haegawoi*, *Peritropis insularis*, *Peritropis iriomotensis*, *Peritropis takahashii*, *Yamatofulvius laevigatus*, *Yamatofulvius miyamotoi*, *Yamatofulvius sinuicornis*. *Fulvius dimidiatus* Poppius, *F. tagalicus* Poppius and *Peritropis advena* Kerzhner are reported from Japan for the first time. A key is provided to distinguish Japanese tribes, genera and species of the Cylapinae. The zoogeography of the Japanese Cylapinae is discussed.

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Key words. – Heteroptera; Miridae; Cylapinae; revision; new genus; new species; Japan.
Nymphs of five species were also examined; they are preserved in 80% ethyl alcohol in small vials (HUES). Photographs presented in this paper were made with an Olympus OM-System (OM-4Ti 35mm camera with T10 Ringflash, Auto Extension Tube, and either Zuiko 50mm/f3.5 or 38mm/f2.8 Macro Lens). Because cylapines are extremely agile and quickly sprint away, most photos of live material were taken from specimens which had been weakly anaesthetized with chloroform vapour, or which had been in the refrigerator for a while. Many photos were made and offered by my colleagues M. Takai (figs. 1, 2, 18-20, 31-35, 55-56, 77) and Y. Nakatani (fig. 21).

All measurements in the text are given in millimetres. In the synonymic lists, only selected references are cited; for detailed lists see the catalogues of Schuh (1995) and Kerzhner & Josifov (1999). New distributional records for known species are each indicated by an asterisk (*) after the name of a region.

**Terminology of the genitalia**

The following abbreviations are used in figures of the genitalia for appropriate indication: AS, anterior sac; DLP, dorsal labiate plate; DS, dorsal sac; IRS, interramal sclerite; LA, lateral arm; MP, mesal sclerotized...