



Additional descriptions of the plant bug genus *Psallus* from the Korean Peninsula (Hemiptera: Heteroptera: Miridae: Phylinae)

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Abstract

Three new species of the plant bug genus, *Psallus* are recognized from the Korean Peninsula: *Psallus* (*Calopsallus*) *injenensis* Duwal **sp. nov.**, *P.* (*Hylopsallus*) *taehwana* Duwal **sp. nov.** and *P.* (*Phylidea*) *yongdaeri* Duwal **sp. nov.** These species are described with illustrations of male and female genitalic structures. A revised key to known species from the Korean Peninsula, including new species and biological notes are provided. The species, *Psallus sanguinarius* is observed in the South Korea for the first time.

Key words: Hemiptera, Heteroptera, Miridae, *Psallus*, new species, the Korean Peninsula

Introduction

The genus, *Psallus* of the subfamily Phylinae is a Holarctic group, and are consisting more than 177 described species, except for *P. buddha* Yasunaga which was reported from Thailand (Schuh, 2002-2013; Yasunaga, 2010). About 51 species of *Psallus* complex were recognized from the Eastern Asia, of which 26 species are found to exist in the Korean Peninsula (Josifov, 1983; 1992; Kerzhner & Josifov, 1966; Yasunaga & Vinokurov, 2000; Zheng & Li, 1990; Li & Liu, 2007; Duwal *et al.*, 2012).

This study represents a part of recent attempts to document the plant bug *Psallus* (Phylinae) in the Korean Peninsula (Duwal *et al.*, 2012), and describes additional three new species. In total 29 species are found currently distributed in the Korean Peninsula including novel species: *P.* (*Calopsallus*) *injenensis* Duwal **sp. nov.**, *P.* (*Halopsallus*) *taehwana* Duwal **sp. nov.**, *P.* (*Phylidea*) *yongdaeri* Duwal **sp. nov.** A known species, *Psallus sanguinarius* is observed in South Korea for the first time, a species of which was unable to be observed during previous studies (Duwal *et al.*, 2012).

This paper provides descriptions of all three new species and revised key to the Korean *Psallus* spp. Digital images of dorsal view, illustrations of male genital structures, images of dorsal labiate plates of female genitalia (*Psallus taehwana* and *P. yongdaeri*) and brief biological notes are included.

All measurements are in millimeters. The principal terminology for body and genitalia follows major works treating the taxa of the Phylinae (Cassis 2008; Duwal *et al.*, 2012). Newly reported species from Korea are indicated by an asterisk (*) after a locality name. All of the examined specimens in this study are deposited in Insect Museum, Seoul National University (SNU). In the synonymic list of known taxa, selected references are only cited, as comprehensive catalogs are available (Kerzhner & Josifov, 1999; Schuh, 1995; 2002–2013).

Genus *Psallus* sensu lato

Type species: *Lygaeus sanguineus* Fabricius, 1794, a synonym of *Cimex haematodes* Gmelin, 1790 (subsequent designation by Reuter, 1888: 412).

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