



## First record and a new species of *Neolygus* Knight (Heteroptera: Miridae: Mirinae) from Nepal, with a checklist of Old World species of *Neolygus*

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### Abstract

The mirine plant bug genus *Neolygus* Knight is reported from Nepal and North India for the first time, thus representing the first confident distributional record of this genus from the Himalayas. A new species, *Neolygus machanensis*, is described from Nepal. Two known members, *N. bui* Lu & Zheng and *N. keltoni* (Lu & Zheng), newly recognized as occurring in Nepal and/or North India, are diagnosed. Habitus images of live individuals and illustrations of the male genitalia are provided for all treated species. A checklist of the Old World species, and discussion of the systematic position and zoogeography of *Neolygus* are included. *Neolygus partitus* (Walker, 1873) [*Capsus*], *N. mjohjangsanicus* (Josifov, 1992) [*Lygocoris*], and *Neolygus zebei* (Günther, 1997) [*Lygocoris*] are proposed as new combinations.

**Key words:** plant bug; Mirini; new taxon; diagnoses; Himalaya; new combinations; distribution; zoogeography; biology

### Introduction

The mirine plant bug genus *Neolygus* Knight is a relatively large Holarctic group, and comprises more than 110 described species, most of which are known from the temperate and cold temperate zones of the eastern Asia and North America. The East Asian faunas of this genus were extensively studied by Cho *et al.* (2011), Kerzhner (1988), Lu & Yasunaga (1994), Lu & Zheng (1998), Yasunaga (1991a, b, c, 1992, 1999, 2001), Yasunaga & Schwartz (2005), and Zheng *et al.* (2004); these works revealed approximately 70 species occurring in China including Taiwan, Japan, Korea, and the Russian Far East. However, only three species of *Neolygus* were previously described from the tropical Oriental Region by early works (Poppius, 1914; Walker, 1873), and there is no reliable account of the genus from Nepal, or the Himalayan range.

Three species of *Neolygus* were collected during field investigations conducted in diverse climate zones in Nepal from April 2005 to March 2007. Of these, two species were found to be *N. bui* (Lu & Zheng) and *N. keltoni*, originally described from China, and the third is an undescribed species from the southern lowland area, or Terai.

The present paper reports *Neolygus* from Nepal, or the Himalayas for the first time; *N. bui* is additionally found to occur in North India, on the basis of specimens deposited in National Science Museum, Tokyo. A new species, *Neolygus machanensis*, is described, and diagnoses for *N. bui* and *N. keltoni* are presented. Digital images of live individuals and illustrations of the male genitalia are provided for all treated species. The systematic position and zoogeography of *Neolygus* are discussed, and a checklist of the Old World species is also provided, including the proposal of three new combinations.