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Revision of Chinese Dilaridae (Insecta: Neuroptera) (Part I): Species of the genus *Dilar* Rambur from northern China

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Abstract

The pleasing lacewing genus *Dilar* Rambur is a dominant group of the family Dilaridae in Asia and is diverse in China with 18 described species. Herein we record five species of *Dilar*. Three species, i.e. *Dilar hastatus* **sp.nov.**, *Dilar spectabilis* **sp.nov.** and *Dilar taibaishanus* **sp.nov.** are described as new to science. *Dilar sinicus* Nakahara and *Dilar septentrionalis* Navás are also redescribed. A key to the species of *Dilar* from northern China is given.

Key word: Dilaridae, *Dilar*, new species, China

Introduction

Dilaridae (pleasing lacewing) is one of the smallest families in the holometabolous order Neuroptera and can be readily recognized by the pectinate male antennae, the strongly elongate ovipositor, and the presence of three prominent tubercles on the vertex (Aspöck *et al.* 1980; New 1989; Oswald 1998). Hitherto, there are 78 valid species of Dilaridae in the world, sorted in five genera of two subfamilies, i.e. Dilarinae (only occur in the Old World) and Nallachiinae (mainly occur in the New World, with two species recorded from Vietnam and South Africa) (Engel 1999; Monserrat 1988, 1989, 2005; Oswald 1998, 2013). The genus *Dilar* Rambur, 1838 belongs to the subfamily Dilarinae and is a dominant group in Asia, Europe, and northern Africa, with 50 described species (Oswald 1998; Oswald & Schiff 2001; Yang 1992, 1999, 2001; Aspöck *et al.* 2001). The adults of *Dilar* are characterized by the male antennae with more than three distal segments without branches, MA vein arising prior to the separation between R and Rs in the forewing, and the narrow subcostal area having several crossveins. The fauna of *Dilar* is diverse in China with 18 described species (Nakahara 1957; Yang 1986, 1987, 1988, 1992, 1999, 2001). However, most Chinese species of *Dilar* were described based on external morphology but not genitalic characters which are very crucial to the specific identification. The Chinese insect fauna is generally divided into the northern and southern parts, which representatively belongs to the Palaearctic and Oriental realms, by the Qinling mountain range and Huai river (Zhang 1999). Recent studies on the taxonomy of Chinese *Dilar* were mainly focused on the species from southern China (Yang 1986, 1987, 1988, 1992, 1999, 2001), while the fauna of *Dilar* from northern China is little known with only two poorly described species (Nakahara 1957; Monserrat 1988). Herein we record five species of *Dilar* from northern China, including three new species. All five species are described or redescribed. A key to the species of *Dilar* from northern China is given.

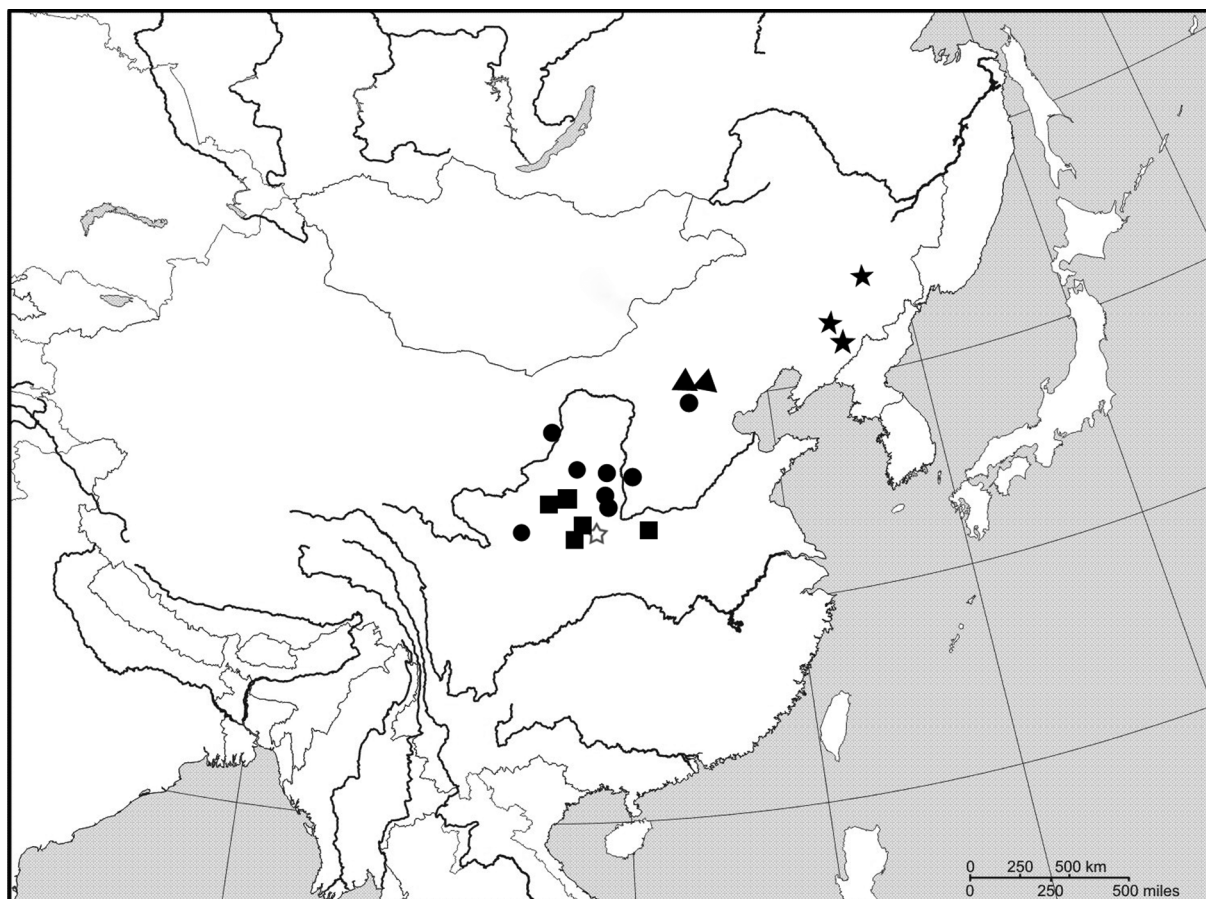


FIGURE 34. Geographic distribution of the species of *Dilar* group. ▲: *D. hastatus* sp.nov.; ★: *Dilar septentrionalis* Navás; ●: *Dilar sinicus* Nakahara; ■: *D. spectabilis* sp.nov.; ☆: *D. taibaishanus* sp.nov.

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