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An Annotated Catalog of the Iranian Berytidae and Piesmatidae (Hemiptera: Heteroptera: Pentatomomorpha: Lygaeoidea)

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Abstract

A list of Iranian Berytidae and Piesmatidae (Heteroptera: Lygaeoidea), with 25 species (16 species of Berytidae and 9 species of Piesmatidae), is given in this paper. *Apoplymus pectoralis* Fieber 1859, *Berytinus clavipes* (Fabricius 1775) (both Berytidae), *Parapiesma kochiae* (Becker 1867), and *P. tenellum* (Horváth 1906) (both Piesmatidae) are reported as new records for Iran.

Key words: Heteroptera, Pentatomomorpha, Lygaeoidea, Berytidae, Piesmatidae, Catalog, Iran

Introduction

Stilt bugs (Berytidae), with 36 genera and 175 valid species worldwide (Henry 2009; Kment & Fent 2012), are a relatively small group of unusual hemipterans which possess long and thin legs and antennae often longer than their bodies, which are cylindrical and relatively elongate. The eyes barely surpass the lateral margins of head and the frons often bears more or less long processes. The clypeus is sharply prolonged between the antennae. The peritremes of the metathoracic scent glands strongly surpass the pronotum laterally at least in Berytinae. The first antennal segment and the femur are more or less incrassate towards the apex. The membrane of the fore wings has five veins which can be hard to see in sub-brachypterous individuals. Male genitalia are symmetrical and parameres are very simple in shape. In the female, genitalia are very similar to those of Lygaeidae. Nymphs bear numerous glandular setae at least in younger stages. Whereas many stilt bugs are phytophagous, some species are predators and prey on crop pests such as aphids, mites, cotton budworms, and tomato hornworms. Others are serious pests of tomato, cotton, and cacao, and therefore are of economic importance in agricultural ecosystems (Henry 1997a, c; Henry & Froeschner 1998, 2000; Aukema & Rieger 2001; Morkel 2007).

The family Berytidae is separated into three subfamilies (and six tribes), Berytinae (tribes Berytini and Berytinini), Gampsocorinae (Gampsocorini and Hoplinini), and Metacanthinae (Metacanthini and Metatropini) (Henry 1997a). Péricart (1984) treated seven genera and 31 species for the Euro-Mediterranean Region and Henry (1997a) revised the New World fauna, including 13 genera and 52 species. Other useful taxonomic works include Gross's (1950) treatment of the Australian fauna, Kerzhner's (1964) keys to the former European U.S.S.R., a review of the Chinese berytids by Hsiao (1977), Froeschner's (1981, 1985) synopsis of the fauna of Ecuador and the Galápagos Islands, Kanyukova's (1988) key to the Far-Eastern Russia, and Froeschner's (1999) synoptic catalog for Panama. Henry (1997b) provided a phylogenetic analysis of the family and revised and gave keys to the genera of the world, and Henry & Froeschner (1998, 2000) cataloged the family at the worldwide.

Ash-grey leaf bugs (Piesmatidae) with 5 genera and 40 valid species (only two genera and 19 species and subspecies in the Palearctic), are small insects, some 2–4 mm overall. The head, thorax, and the firm part of the wings are extensively dimpled. This resembles the similar pattern of the Tingidae of the infraorder Cimicomorpha, and was initially (and as far as the middle of 19th century) taken to signify their close relationship. Piesmatidae was originally considered to be related to Tingidae because of their possession of two-segmented tarsi and densely areolate body. They were placed in the infraorder Pentatomomorpha by Leston *et al.* (1954), who transferred them to the Lygaeoidea based on their trichobothria and wing venation. Štys (1967) placed them within the 'malcid line'