



<http://dx.doi.org/10.11646/zootaxa.3718.3.1>

<http://zoobank.org/urn:lsid:zoobank.org:pub:90CBE784-9085-4A1D-B316-8BA877CDBF9D>

## An annotated catalog of the Iranian Reduivoidea (Hemiptera: Heteroptera: Cimicomorpha)

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### Abstract

An updated list of Iranian Reduivoidea Latreille (families Pachynomidae, Reduviidae) is presented and discussed in this paper. For Iranian fauna, there are records of one species of Pachynomidae and 109 species and subspecies of assassin bugs (Reduviidae) distributed in 24 genera and subgenera, and seven subfamilies, Emesinae, Harpactorinae, Holoptilinae, Peiratinae, Phymatinae, Reduviinae, and Stenopodainae. We report 6 new country records and one new species, *Empicoris baerensprungi* (Dohrn, 1863) for Asian fauna. Synonyms and distribution data are also given.

**Key words:** Heteroptera, Cimicomorpha, Reduivoidea, Pachynomidae, Reduviidae, Catalog, Iran, Palearctic Region

### Introduction

Cimicomorpha comprise more than 20,000 species, now currently placed in 17 families (Weirauch & Schuh 2011). The superfamily Reduivoidea Latreille 1807 includes only two families, Pachynomidae Stål 1873 and Reduviidae Latreille 1807; both are present in Iran (Putshkov & Putshkov 1996; Aukema *et al.* 2013).

Pachynomidae has been considered within Nabidae but the taxon is close to Reduviidae and was recognized at family rank by Carayon (1950) and Carayon & Villiers (1968). Pachynomidae is a small family with two subfamilies, Aphelonotinae Carayon & Villiers 1968 and Pachynominae Stål 1873; both are found in South American and Africa. Pachynomidae (and especially the genus *Pachynomus*) are more widely distributed from Africa to India and Mid Asia (Carayon & Villiers 1968). The biology of the 16 known species has been poorly studied, and most specimens have been collected at light (Schuh & Slater 1995).

Reduviidae are a diverse group of mostly predatory insects with currently close to 7000 species described worldwide, and 1000 genera and 29 subfamilies (Cassis & Gross 1995; Weirauch 2008; Henry 2009). The family Reduviidae contains more subfamilies than any other heteropteran family and their composition and relationship need further studies (Ambrose 1999, 2004, 2006). Hence, there is an absolute need for a comprehensive reassessment of the subfamilies, tribes (divisions), and genera (Ambrose *et al.* 2007; Weirauch & Munro 2009).

Most assassin bugs prey on other arthropods, with frequent specialization on a certain group of prey organisms, such as termites, ants, or diplopods (Cassis & Gross 1995; Weirauch & Cassis 2006; Forthman & Weirauch 2012). Members of the subfamily Triatominae are distinctive for their blood-sucking habits and as vectors of human trypanosomiasis (*Trypanosoma cruzi*, the causal agent of Chagas' disease) in the Neotropics (Henry 2009). Reduviidae are found in many terrestrial habitats, but are most abundant in tropical and subtropical regions (Melo & Coscarón 2004). In the Palearctic, the reduviids are well known in the temperate countries, but very scarce in the northern parts (Putshkov & Putshkov 1996; Yildirim *et al.* 2010; Aukema *et al.* 2013).

Many reduviids are generalist predators of many pest insects. Reduviid bugs are valuable predators in situations where a variety of insect pests occur, and they should be conserved and augmented for their utilization in