

Redescription of *Pararhaphes* and review of *Arhaphe* (Hemiptera: Heteroptera: Largidae) of America north of Mexico

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Abstract

The genus *Pararhaphes* Henry, 1988 (= *Japetus* Distant, 1883) (Largidae: Arhaphinae) is redescribed based on the type species *Pararhaphes sphaeroides* (Distant, 1883), considered monotypic, and its generic status is confirmed. The genus *Jarhaphetus* Bliven, 1956, **syn. restit.**, is confirmed as junior synonym of *Arhaphe* Herrich-Schaeffer, 1850. Four species of the genus *Arhaphe* occurring in the United States are recognised and keyed: *Arhaphe arguta* (Bliven, 1956) **comb. restit.** (= *Jarhaphetus argutus* Bliven, 1956; = *Arhaphe snowi* Bliven, 1973, **syn. nov.**); *Arhaphe breviata* Barber, 1924; *Arhaphe carolina* Herrich-Schaeffer, 1850; and *Arhaphe mimetica* Barber, 1911, **comb. restit.** (from *Pararhaphes mimetica* (Barber, 1911)). *Arhaphe cicindeloides* Walker, 1873 (= *Arhaphe divisa* Brailovsky, 1981, **syn. nov.**) is redescribed based on type specimens; all the previous records of *A. cicindeloides* from the United States are regarded as misidentifications of *A. arguta*. Lectotypes of *A. cicindeloides* and *A. mimetica* are designated. The literature, bionomics, and distribution of all the mentioned taxa is reviewed.

Key words: Heteroptera, Largidae, *Arhaphe*, *Japetus*, *Jarhaphetus*, *Pararhaphes*, taxonomy, new synonymy, new combination, distribution, Mexico, USA

Introduction

The genera *Arhaphe* Herrich-Schaeffer, 1850, *Jarhaphetus* Bliven, 1956, and *Pararhaphes* Henry, 1988 (= *Japetus* Distant, 1883), distributed in the USA, Mexico, and Central America, are the only three genera classified in the subfamily Arhaphinae (Henry 1988), which together with New World Larginae and Old World Physopeltinae constitutes the family Largidae. All representatives of these genera are strongly myrmecomimetic (Barber 1911, Slater & Baranowski 1978, Schuh & Slater 1995) and they are supposed to be either Müllerian or Batesian mimics of velvet ants (Hymenoptera: Mutillidae) (Schuh & Slater 1995, Hoffman 2005).

Although Arhaphinae are not a species-rich taxon, their genus- and species group-taxonomy are rather confused. Concerning the genera, Halstead (1972) and Brailovsky (1981, 1996) recognised only a single valid genus, *Arhaphe*, whereas Bliven (1973) insisted on three genera—*Arhaphe*, *Japetus*, and *Jarhaphetus*. The confusion was partly caused by long-time repeated misidentifications of particular species and absence of study of the critical types (especially of *Arhaphe cicindeloides* Walker, 1873, see below); and confused even more by personal objections by a worker on *Arhaphe*, which has led to personal invectives rather than to scientific arguments (see Bliven 1956, 1973 *versus* Halstead 1972). The highly unsatisfactory state of Arhaphinae taxonomy was reviewed and commented on by Henry (1988), who also substituted the preoccupied name *Japetus* Distant, 1883 by *Pararhaphes* Henry, 1988. However, the necessary revision based on study of the types has never been published and is the subject of this contribution.