



Rediscovery of *Gryon chrysoleaum* (Walker) (Hymenoptera: Platygasteridae) —an egg parasitoid of *Holhymenia rubiginosa* Breddin and *Anisoscelis foliacea* Fabricius (Heteroptera: Coreidae)

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Abstract

During surveys of natural enemies of the leaf-footed bugs *Holhymenia rubiginosa* Breddin and *Anisoscelis foliacea* Fabricius in Rio Grande do Sul State, Brazil, two species of primary egg parasitoids belonging to the genus *Gryon* were reared from these hosts. One of these *Gryon* species was identified as *G. chrysoleaum* Walker, a species unknown since its description nearly 170 years ago. The second *Gryon* species reared was *G. vitripenne* Masner. These rearings represent the first host records for this species. Levels of parasitism by *G. chrysoleaum* were 35% and 53% on *H. rubiginosa* and *A. foliacea* respectively. Additional specimens reared were a *Neorileya* and a *Telenomus* species. After examination of unidentified *Gryon* specimens in the Natural History Museum, London, a further three specimens were located, from Brazil and Mexico. Data on hosts and localities of all known specimens of *G. chrysoleaum* are presented, and the species is redescribed and compared with its closest known relatives. The female is described for the first time.

Key words: parasitoids; egg parasitoids; ooparasitoids; taxonomy

Introduction

Passion fruit (*Passiflora* spp., Passifloraceae) is native to southern Brazil, and has been a crop of considerable economic importance in the region for many years. Among the more serious pests and diseases of passion fruit are two species of coreid bugs (Heteroptera: Coreidae). *Holhymenia rubiginosa* Breddin (Fig. 8) and *Anisoscelis foliacea* F. are associated with several species of *Passiflora*, including *P. edulis* f. *flavicarpa* Degener and *P. alata* Curtis. Both coreid species are responsible for withering and fall of both fruits and floral buds, and control methods for these pests are therefore currently being investigated. In order to investigate the potential of endemic natural enemies of these pests as biological control agents, in 2006 a preliminary survey was conducted to identify egg parasitoids, with the longer-term aim of assessing their effectiveness. Both coreid species are very similar regarding egg morphology, and might therefore be expected to serve as hosts of similar or identical parasitoid species.

The parasitoids most commonly recorded as egg parasitoids of coreids belong to several genera of Chalcidoidea (*Anastatus*, *Ooencyrtus*) and the cosmopolitan platygastid genus *Gryon* Haliday. The taxonomy of *Gryon* is currently very poorly known, with the identities of many previously described species uncertain. The rediscovery during this study of a *Gryon* species unknown for 170 years has provided an opportunity to redescribe it in detail, and to summarize the greatly increased data on its biology and distribution that this study has yielded.