

Description of the larval instars of *Gonatopus bartletti* Olmi, 1984 (Hymenoptera: Dryinidae)

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Abstract

The postembryonic development and external morphology of each larval instar of *Gonatopus bartletti* Olmi, 1984 are described and illustrated. The affinities among the immature and mature larvae of *G. bartletti* and corresponding instars of other species of the same subfamily are discussed. The mature larva shows a peculiar structure never observed in other Gonatopodinae species; near the base of each mandible is a peculiar subrectangular heavily sclerotized and dark pigmented area with a lens-shaped transparent protuberance in its anterolateral angle. Its function is unknown.

Key words: Auchenorrhyncha, Fulgoromorpha, Cicadomorpha, Gonatopodinae, postembryonic development, morphology

Introduction

Dryinidae is a highly specialized family of Aculeata that is widely distributed throughout the world and includes at least 1400 species (Olmi, 1999). In their postembryonic development, Dryinidae have two types of larvae, mature and immature, which differ in shape, physiology, and feeding habits. The immature larvae are sacciform according to the terminology used by Clausen (1940), and live as parasitoids of juvenile instars or adults of Auchenorrhyncha. The mature larva is hymenopteriform (Clausen 1940); this stage kills the host by feeding on its internal tissues, and, then, moves about freely for a short time until it spins a cocoon for pupation.