



## Description of mature larvae of *Allodynerus rossii* (Lepeletier), *Ancistrocerus auctus* (Fabricius), *Euodynerus dantici* (Rossi) and *Symmorphus murarius* (Linnaeus) (Hymenoptera, Vespidae)

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### Abstract

The mature larvae of four species of Eumeninae, *Allodynerus rossii* (Lepeletier), *Ancistrocerus auctus* (Fabricius), *Euodynerus dantici* (Rossi) and *Symmorphus murarius* (Linnaeus), are described. The mature larvae of *A. rossii* is characterized by the number, morphology and distribution of sensilla of the labrum and epipharynx. The last instar larva of *A. auctus* is characterized by having an epipharynx with 14 sensilla. The most apparent differences between the mature larvae of *Euodynerus* lie in the number of sensilla of maxillary and labial palpi and antennae. *E. dantici* is characterized by presenting the antennae with four apical sensilla and maxillar and labial palpi with five sensilla on apex. *S. murarius* is characterized by having the opening into subatrium armed with spines and maxillary palpi with two sensilla at apex. The larval morphology of *Allodynerus* is described for first time.

**Key words:** Preimaginal stages, Eumeninae

### Introduction

For several years the authors of this article have been studying the preimaginal stages of a large number of taxa of Hymenoptera, and highly satisfactory results and conclusions have been obtained (Tormos *et al.* 2001, 2003, 2004, 2006, 2007, 2008). As an example, one could cite the conclusions concerning chrysidids, a group for which it has been seen that the morphology of the preimaginal stages, in particular that of the last larval stage, supports the phylogeny of the group (Tormos *et al.* 2001).

Currently, unlike other groups of hymenopterous in which the morphology of the preimaginal stages, and in particular the morphology of the last larval stage, allows the characterization of taxa at genus and family level (example: Evans 1959 (spheciform wasps), Tormos *et al.* 2001 (chrysidids)), in the eumenine the separation at the generic and specific levels by means of larval characters is difficult (Grandi 1961, Evans 1977, Tormos *et al.* 1998).

It is therefore crucial to conduct exhaustive descriptive studies that will permit to know -in the mature larvae of the subfamily Eumeninae- characters that define the taxa at genus and species levels. It is believed that such studies will contribute inexorably to clarification of the phylogeny, and hence the systematics, of this group of Vespidae.

In this paper we describe the mature larvae of *Allodynerus rossii* (Lepeletier), *Ancistrocerus auctus* (Fabricius), *Euodynerus dantici* (Rossi) and *Symmorphus murarius* (Linnaeus), obtained during a study on the fauna of rubicolous species in the northern subplateau of the Iberian Peninsula and Italy. Their morphology is compared with that of the other species belonging to the genera *Ancistrocerus* (Tormos *et al.* 1998, 2005),