

Description of Adults, Preimaginal Phases, and the Venom Apparatus of a New Species of *Aspilota* Förster from Spain (Hymenoptera: Braconidae)

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Maximilian Fischer, Josep Tormos, Xavier Pardo, and Josep Daniel Asís (2008) Description of adults, preimaginal phases, and the venom apparatus of a new species of *Aspilota* Förster from Spain (Hymenoptera: Braconidae). *Zoological Studies* 47(3): 247-257. The adults, egg, preimaginal stages, and venom apparatus of *Aspilota propeminimam* sp. nov. are described and compared with those of allied species. The new species is an endoparasitoid and was reared from sarcophagid flies, *Sarcophaga carnaria* (Linnaeus), that had infested a rat carcass in Spain. Morphological structures of potential phylogenetic value are discussed, and a key for the discrimination of the imagines is provided. Additionally, the different phases and preimaginal stages of the Alysiinae are described and characterized; the following characters that define the mature larvae of *Aspilota* Förster and some of its closest genera (e.g., *Dinotrema* Förster and *Eudinostigma* Tobias) are provided: (a) tegument smooth, (b) epistoma and epistomal arch complete, (c) mandibles straight and thorn-shaped, (d) mandibular blade without teeth, (e) labial sclerite completely reduced, (f) only mandibles and palpi present and clearly differentiated, (g) all cephalic structures non-sclerotized, except for epistoma, hypostoma, and mandibles, and (h) spiracles with differentiated atrium and closing apparatus; closing apparatus not close to atrium. <http://zoolstud.sinica.edu.tw/Journals/47.3/247.pdf>

Key words: Hymenoptera, Preimaginal phases, *Aspilota*, Venom apparatus, New species.

Alysiinae is a species-rich subfamily of the Braconidae that has over 1000 described species placed in 2 tribes: the Alysiini and Dacnusiini (Shenefelt 1974, Yu et al. 2005). Its monophyly is based on the possession of exodont mandibles and the koinobiont endoparasitism of cyclorrhaphous Diptera (Docavo et al. 2007).

Within the Alysiini, the *Aspilota* Förster, 1862 complex (= *Aspilota* sensu lato), is characterized by the following derived character states: a) a tendency to have a linear pterostigma, and b) a venom reservoir with a long neck and parallel sides (i.e., a fairly simple poison gland). Within this complex, one of the groups of the Braconidae with a large number of species, *Aspilota*, is

characterized by the autapomorphy "tentorial pits reaching the edge of the eye". A revision and discussion of the relationships among the genera of this complex are provided by van Achterberg (1988) and Wharton (2002).

Most of the systematics and taxonomy of braconid wasps are based on the external morphology of adults, and relatively little attention has been paid to interspecific differences in larval or internal characters, even though these could be useful.

Hagen (1964), Finlayson and Hagen (1979), Finlayson (1987), Pardo et al. (2000 2001), Tormos et al. (2003), and Fischer et al. (2006) have provided most of the information on the functional

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