Checklist of Turkish Opiinae (Hymenoptera, Braconidae)

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Abstract

The Opiinae (Hymenoptera: Braconidae) species recorded from Turkey until the end of 2011 are listed, the present total number being 182. Changes with respect to the previous Turkish fauna are briefly annotated and the distributions for all the species in each of the 68 biogeographical provinces of Turkey are presented. After the publication of our previous fauna, 174 species have been recorded as new to Turkey. Of these, 105 species are distributed only in Asian Turkey and ten species are distributed only in European Turkey, while 73 species occur in both. The presented checklist covers synonyms, zoogeographical region(s), hosts, host plants of the host species and parasitoid data for the species.

In total, 182 species belonging to ten genera are reported for Turkey. The number of species of each genus is represented by:

- **Atormus** van Achterberg, 1997: one;
- **Biosteres** Foerster, 1862: 17;
- **Bitomus** Szépligeti, 1910: three;
- **Diachasma** Foerster, 1862: one;
- **Diachasmimorpha** Viereck, 1913: one;
- **Eurytenes** Foerster, 1862: three;
- **Indiopius** Fischer, 1966: three;
- **Opius** Wesmael, 1835: 151;
- **Psyttalia** Walker, 1860: one;
- **Sternaulopius** Fischer, 1965: one.

**Key words:** Hymenoptera, Ichneumonoidea, Braconidae, Braconinae, Turkey, synonym, host

Introduction

Opiinae is a large subfamily, including over 1,863 described species in 33 genera worldwide (Yu *et al.*, 2006). Most opines are small, squat, and weakly sculptured. They are usually rather uniformly brown or blackish, but a few are more brightly marked with orange or yellow colours. The clypeus is often broadly emarginate, causing a space between it and the mandibles when closed. This opening is usually relatively narrow, but in extreme cases it can lead to confusion with the cyclostome subfamilies, and in particular with Braconinae and Exothecini (Rogadinae), with which all opiines (except *Ademon* Haliday) share the lack of a prepectal carina.

All species of Opiine are solitary koinobiont endoparasitoids of phytophagous Muscomorpha Diptera. Most opines are generally associated with leafminers, but in warmer climates the subfamily has important associations with fruit flies (Tephritidae), giving Opiinae a relatively high status with respect to biological pest control. Most species of the genus *Opius* Wesmael are small and parasitise leaf-mining Agromyzidae, though a number of larger species attack leaf-mining Anthomyiidae (*Pegomyza* Schnabl and Dziedzicki, *Chirosia* Rondani) and Tephritidae. The opines that attack agromyzids generally have broader individual host ranges than the dacnusiine alysiines that attack the same host group. They include a group with long ovipositors parasitising hosts in seed heads, but in contrast with dacnusiines, opines do not appear to have developed specialized forms that parasitise stem-boring hosts (Shaw & Huddleston, 1991).

Geographically, Turkey forms a natural bridge between the old world continents of Asia, Africa and Europe. The Anatolian peninsula is the westernmost point of Asia, divided from Europe by the Bosphorus and Dardanelles straits. Thrace is the western part of Turkey on the European continent. In addition, European Turkey is one of the access points for species arriving from Europe to Anatolia during the recent glaciation (Akçar & Schlüchter, 2005), and the area provides numerous types of habitats for a wide range of plants and animals (Fig. 1). For his reason, the Opiinae fauna of Turkey is very interesting.

Material and methods