SHORT COMMUNICATION

First record of *Sphegigaster* Spinola (Hymenoptera: Pteromalidae) in Greece

G.K. Partsinevelos¹, D.C. Kontodimas², A. Michaelakis² and P.G. Milonas¹

Summary  The genus *Sphegigaster* Spinola (Hymenoptera: Pteromalidae) is recorded for the first time in Greece. Adult endoparasitoids emerged from parasitized pupae of the asparagus miner *Hexomyza simplex* (Loew) (Diptera: Agromyzidae) which had been collected in Orestiada region in 2003.

Additional keywords: asparagus, Chalcidoidea, Diptera, distribution, parasitoid

The asparagus miner *Hexomyza simplex* (Loew) (Diptera: Agromyzidae) is an important pest of asparagus crop. Damage begins as feeding larvae destroy the sub epidermal cells of the cortex and continue by burrowing mines in the small stems and the young shoots until they complete larval development. Moreover, larval feeding causes also qualitative degradation and deformation of the shoots, acquiring a bitter taste, while becoming more susceptible to infestations by pathogens such as *Fusarium oxysporum* Schlecht (Hypocreales: Nectriaceae) and *Fusarium proliferatum* Matsushima, Nirenberg (Hypocreales: Nectriaceae) (Higley and Pedigo, 1984; Morrison et al., 2011).

In Greece, *H. simplex* was first recorded in the region of Orestiada in 2002 and two years later, in 2004, in the region of Kavala, Giannitsa and Aitolokarnania (Anagnou et al., 2003; Anagnou et al., 2004). During a monitoring survey of *H. simplex* in Orestiada region in 2003 – 2004, regular stem samplings from asparagus fields and records of captures in yellow glue traps, were taken fortnightly. The samples were placed into plastic bags, transferred and examined at the Department of Entomology and Agricultural Zoology in Benaki Phytopathological Institute. Pupae of *H. simplex* were dissected from the infested stems and maintained in the laboratory at 25°C, 12:12 L:D h, until adult emergence. A number of pupae were observed to be parasitized. Specimens of parasitoids emerged were kept in Eppendorf tubes and four of them were sent for identification to the Natural History Museum of London. The specimens belonged to two different species of the genus *Sphegigaster* Spinola (Hymenoptera: Pteromalidae). Identification was done by Dr John Noyes. The specimens have been deposited in the Natural History Museum of London and in the Benaki Phytopathological Institute.

This is the first record of the genus *Sphegigaster* in Greece. Moreover, it is the first report of *Sphegigaster* associated with *H. simplex* (Noyes, 2012). There are a few records of *Sphegigaster* associated with *Hexomyza* species but not for *H. simplex* (Noyes, 2012). The genus *Sphegigaster* contains endoparasitoid wasps. It is a virtually cosmopolitan genus, represented worldwide by about 80 described species with many yet to be discovered. Due to lack of studies there are not sufficient data for the biology, ecology and morphology of this genus (Noyes, 2012 per-
sonal communication). Thirty species of this genus have been recorded in the Palaearctic region, China (Huang, 1990), Italy (Burgio et al., 2000), France (Vago, 1993), United Kingdom (Graham, 1969; Herting, 1978; Thompson, 1958), Romania, Ireland, Spain (Mitroiu, 2004), Iran (Mitroiu et al., 2011), Turkey (Çikman et al., 2006; Uygun et al., 1995), Bulgaria (Georgiev, 2004) and Sweden (Hedqvist, 2003).

*Sphegigaster* species are known as parasitoids of agromyzid flies, usually of stem-mining, where they lay their eggs into the pupal stages of their hosts. The general appearance of head, mesosoma, coxae is metallic green or blue. Size ranges from 1.8 to 2 mm (Heydon and LaBerge, 1988).

**Literature Cited**


Received: 5 June 2013; Accepted: 14 July 2013

© Benaki Phytopathological Institute
Πρώτη καταγραφή του *Sphegigaster Spinola* (Hymenoptera: Pteromalidae) στην Ελλάδα

Γ.Κ. Παρτσινέβελος, Δ.Χ. Κοντοδήμας, Α. Μιχαηλάκης και Π.Γ. Μυλωνάς

Στην παρούσα εργασία αναφέρεται για πρώτη φορά στην Ελλάδα η παρουσία παρασιτοειδών εντόμων του γένους *Sphegigaster Spinola* (Hymenoptera: Pteromalidae) στην Ορεστιάδα το 2003. Βρέθηκαν δύο άγνωστα είδη του γένους *Sphegigaster* να παρασιτούν νύμφες του υπονομευτή του σπαραγγιού *Hexomyza simplex* (Loew) (Diptera: Agromyzidae) σε φυτά σπαραγγίου.