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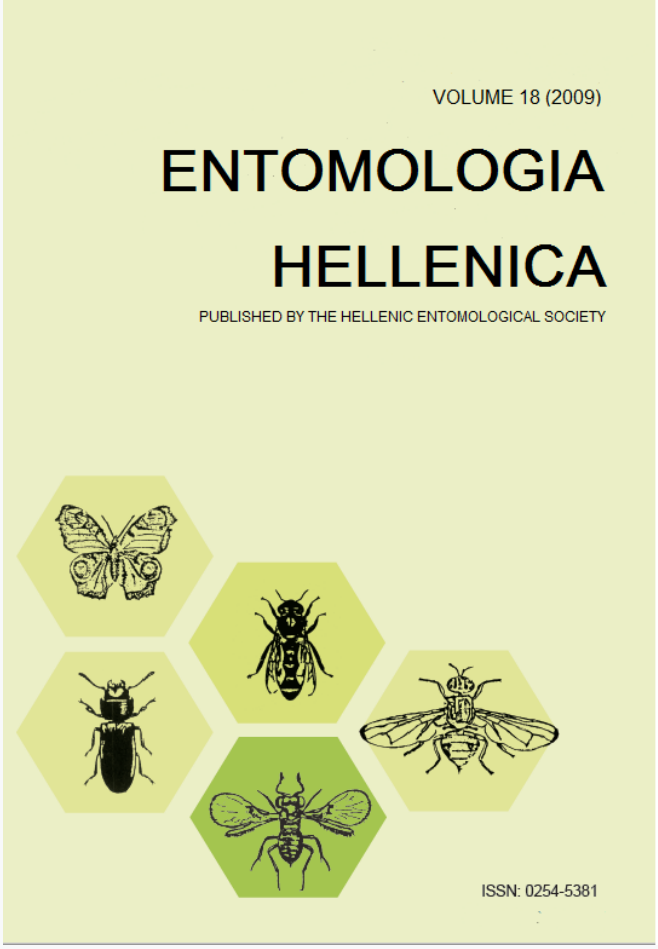

First record of Capparimyia savastani in Greece

D. Papachristos, P. Milonas, M. Papasotirioy

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SHORT COMMUNICATION

First record of *Capparimyia savastani* in Greece

D. PAPACHRISTOS[1], P. MILONAS[2*] AND M. PAPASOTIRIOY[3]

[1]Benaki Phytopathological Insitute, Department of Entomology and Agricultural Zoology, Laboratory of Agricultural Entomology, 8 St. Delta Str., 145 61, Kifissia, Athens, Greece
[2]Benaki Phytopathological Insitute, Department of Entomology and Agricultural Zoology, Laboratory of Biological Control, 8 St. Delta Str., 145 61, Kifissia, Athens, Greece
[3]Direction of Rural Development of Milos, 84300 Milos, Greece

ABSTRACT

During the summer of 2008 extensive infestation was observed on edible flower buds of wild and cultivated caper plants (*Capparis* sp.) in Milos island. Larvae were taken from infested plants and kept in laboratory conditions at 24±1°C, 70±5% RH, and under a photoperiod of 16:8 (L:D) h until adult's emergence. Adults were identified as the species *Capparimyia savastani* (Martelli) (Diptera: Tephritidae). The presence of this species is recorded for the first time in Greece. The larvae of *C. savastani* fed on flower buds of caper plants and it appears to be capable to cause extensive damage on cultivated and wild caper.

Morphology

The identification of the species was based on specimens that are found in wild capper flower buds (*Capparis* sp.) in August of 2008 from Aegean Sea island of Milos (area Adamas, 34° 43′ 30′′ N, 24° 26′ 42′′ E). The sample was constituted of about 60 flower buds. All buds were highly infested (contain more than 5 to 8 larvae per bud). About 30 capper buds were kept intact until pupation. From those 50 pupae 38 adults emerged. Based on the adult morphological characteristics we identified the species as *Capparimyia savastani* (Diptera: Tephritidae). The confirmation of the insect species was done by Liat Gahanama in Plant Protection and Inspection Services in Israel where specimens of adults have been deposited.

Adults have yellowish brown coloration with black patches and two black apical scutellar spots (Fig. 1). Wing base is yellowish brown with patterns of brown streaks and spots. The abdomen is dark yellowish with light grey bands. Black apical scutellar spots narrowly separated, sometimes partly confluent, which do not reaching the base of the scutellum. Subscutellum is mostly black, with a white median spot. Adults look like to *Ceratitis capitata* (Diptera: Tephritidae) (a common species in Greece) but its characteristic scutum and scutellum patterning are quite different. A detailed description of the species that belongs to genus *Capparimyia* has been provided by De Meyer and Freidberg (2005).

Distribution

C. savastani is the only species of the genus *Capparimyia* occurring outside the Afrotropical Region (except for the Saudi Arabian material of *C. aenigma*). It seems to be widely distributed throughout the

**Corresponding author, e-mail: p.milonas@bpi.gr*

Mediterranean region and is also reported in Pakistan. The presence of the insect have been reported from Italy (Sicily), Malta, Algeria, Libya, Egypt, Israel, Oman, France, Pakistan, and Tunisia (Freidberg and Kugler 1989, Donati and Belcari 2003, De Meyer and Freidberg 2005, Miranda et al. 2008). This is the first record of the species in Greece.

FIG. 1. Adult of *C. savastani*.

Host plants and damage

The genus *Capparimyia* Bezzi is predominantly an Afrotropical group that includes eight species developing on plants of the capper family (Capparidaceae). In contrast to what it happens with species from the tribe of Ceratitidini, *Capparimyia* flies are capable of infesting flower buds as well as fruits (De Meyer and Freidberg 2005).

Since the larvae are developed in the edible buds of capers (*Capparis spinosa*), it is considered a potential pest of this commercially cultivated commodity. The common European caper, *Capparis spinosa*, is cultivated in the Mediterranean region for its flower buds that are used, when pickled, as a relish in European cuisine (Mabberley 1997). Infestation by *C. savastani* of this plant is considered as a potential economic problem (White and Elson-Harris 1992).

We attempted to rear larvae until adulthood on artificial food in the laboratory but the effort was without success. Larvae (about 50) that were taken from infested flower buds were transferred into Mediterranean fruit fly larval diet (solid larval food (Boller 1985) with water in a proportion of 1:2 (food:water)) but none of the larvae managed to pupate. Regarding adults (about 30), upon emergence they were placed into a wire-screened, wooden, holding cage (30x30x30cm) and were provided with food (used for the rearing of Mediterranean fruit fly) (a mixture of yeast hydrolyzate and sugar in a proportion of 1:4) but none of them managed to live more than 10 days. The biology of this species has not been studied yet and therefore almost nothing is known about its longevity or fecundity.

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Πρώτη καταγραφή του εντόμου *Capparimyia savastani* στην Ελλάδα

Δ. ΠΑΠΑΧΡΗΣΤΟΣ[1], Π. ΜΥΛΩΝΑΣ[2] ΚΑΙ Μ. ΠΑΠΑΣΩΤΗΡΙΟΥ[3]

[1]Μπενάκειο Φυτοπαθολογικό Ινστιτούτο, Τμήμα Εντομολογίας και Γεωργικής Ζωολογίας, Εργαστήριο Γεωργικής Εντομολογίας, Σ. Δέλτα 8, 14561 Κηφισιά, Ελλάδα
[2]Μπενάκειο Φυτοπαθολογικό Ινστιτούτο, Τμήμα Εντομολογίας και Γεωργικής Ζωολογίας, Εργαστήριο Βιολογικής Καταπολέμησης, Σ. Δέλτα 8, 14561 Κηφισιά, Ελλάδα
[3]Δ/νση Γεωργικής Ανάπτυξης Μήλου, 84800 Μήλος, Ελλάδα

ΠΕΡΙΛΗΨΗ

Κατά τη διάρκεια του θέρους του έτους 2008 παρατηρήθηκε εκτεταμένη προσβολή σε ανθοφόρους οφθαλμούς φυτών κάπαρης (*Capparis* sp.) στο νησί της Μήλου. Από ενήλικα άτομα που προήλθαν από δείγματα προσβεβλημένων φυτών διαπιστώθηκε ότι πρόκειται για το είδος *Capparimyia savastani* (Martelli) (Diptera: Tephritidae). Η παρουσία του εντόμου αυτού καταγράφεται για πρώτη φορά στην Ελλάδα. Το έντομο αυτό προβάλλει τους ανθοφόρους οφθαλμούς φυτών που ανήκουν στο γένος *Capparis* και φαίνεται ότι μπορεί να προκαλέσει εκτεταμένες ζημιές σε καλλιεργούμενα και αυτοφυή φυτά κάπαρης.