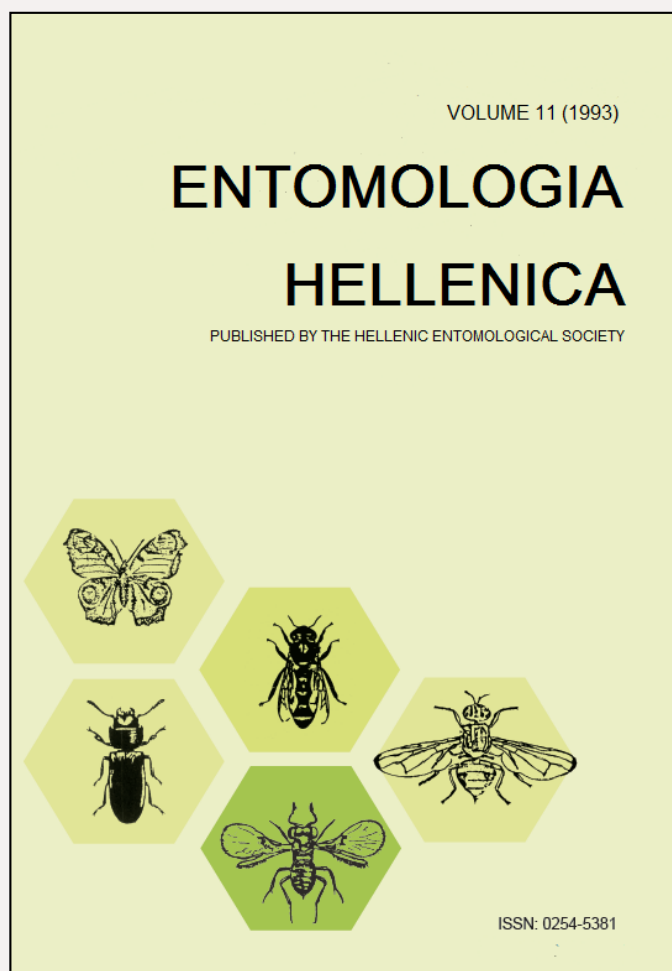


ENTOMOLOGIA HELLENICA

Vol. 11, 1993



The Occurrence of the Polyphagous Predator *Orius niger* (Wolff) (Hemiptera, Anthocoridae) in Greece

Lykouressis D.

Laboratory of Agricultural
Zoology and Entomology,
Agricultural University of
Athens, 75 Iera Odos, GR
118 55 Athens, Greece

<https://doi.org/10.12681/eh.14012>

Copyright © 2017 P. Lykouressis



To cite this article:

Lykouressis, D. (1993). The Occurrence of the Polyphagous Predator *Orius niger* (Wolff) (Hemiptera, Anthocoridae) in Greece. *ENTOMOLOGIA HELLENICA*, 11, 43-44. doi:<https://doi.org/10.12681/eh.14012>

The Occurrence of the Polyphagous Predator *Orius niger* (Wolff) (Hemiptera, Anthocoridae) in Greece¹

D. P. LYKOYRESSIS

Laboratory of Agricultural Zoology and Entomology,
Agricultural University of Athens,
75 Iera Odos, GR 118 55 Athens, Greece

The genus *Orius* belongs to the family Anthocoridae of Hemiptera and includes small oval species with shiny black or dark brown colour (Kerzhner and Yachevskii 1967). They are found usually on flowers and leaves of various cultivated or other plants. They are predaceous preying usually on thrips, aphids, whiteflies, mites and eggs of Lepidoptera.

Several species such as *O. niger* Wolff (Schreuder and Ramakers 1989), *O. majusculus* (Reuter) (Trottin - Caudal et al. 1991, Jacobson 1993) and *O. laevigatus* (Fieber) (Tavella et al. 1991, Villeveille and Millot 1991) have been experimentally appraised and established in glasshouse crops such as peppers, cucumbers, aubergines, ornamentals and strawberries throughout Europe, mainly for control of western flower thrips.

O. laevigatus, an indigenous species in England can offer improved control of western flower thrips in peppers but not on cucumbers where it has proved very difficult to establish (Chambers and Long 1992). In a comparative study for biological control of western flower thrips in commercial glasshouses with sweet peppers, the introduced native *O. niger* replaced the introduced imported *O. insidiosus* (Say) by the end of the growing season (Van de Vrie and Degheele 1992). In that study, it was shown that

shorter daylengths did not affect *O. niger* in terms of egg laying, in contrast with *O. insidiosus*. However, in another comparative study for biological control of western flower thrips testing *O. majusculus*, *O. laevigatus*, *O. niger* and *O. insidiosus*, *O. niger* showed a lower oviposition rate than the other species (Tommasini and Nicoli 1993).

O. niger is 1.2-2 mm in length. Each corner in the pronotum, either anterior or posterior, bears one seta (Fig. 1a). The length of these setae is as long as the breadth of an eye. There are no setae in the pronotum of *O. minutus* L. and *O. majusculus* (Kerzhner and Yachevskii 1967). The left paramere, for three species of *Orius*, is shown in Fig. 1b. The male genitalia provide important and reliable distinctive characters for identification.

O. niger was found in a tomato processing field near Thiva Co. Boiotia during September 1992. The next year, it was also found during the summer months and September. This is the first record of this species for Greece. The adults found on that crop in both years were dead. Live

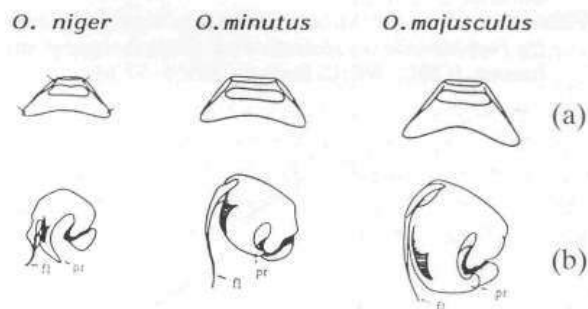


FIG. 1. Pronotum (a) and dorsal view of the left paramere (b) of *Orius niger*, *Orius minutus* and *Orius majusculus* (fl-flagellum, pr-process) (after Kerzhner and Yachevskii 1967).

nymphs of this species were recorded however. *O. niger* is a predator of western flower thrips, a serious pest of glasshouse cucumbers, peppers and ornamentals as well as of other plants. Its presence in Greece, as a native species, is very important and it is worth while the study of its biological and behavioural properties for a better understanding of the capabilities for its use as a biological control agent.

¹ Received for publication December 20, 1993.

References

- Chambers, R.J. and S. Long. 1992. New predators for bio-control under Glass. *Phytoparasitica* 20 (Suppl.): 57-60.
- Jacobson, R. 1993. Control of *Frankliniella occidentalis* with *Orius majusculus*: experiences during the first full season of commercial use in the U.K. IOBC/ WPRS Bulletin 16(2) : 81-84.
- Kerzhner, I.M. and T.L. Yachevskii. 1967. Order Hemiptera (Heteroptera). In: Keys to the Insects of the European USSR, Vol. I, edited by G. Ya. Beibienko, Translated by J. Salkind, Jerusalem: 851-1118.
- Schreuder, R.G. and P.M.J. Ramakers. 1989. Onverwachte hulp bij geïntegreerde bestrijding. *Groenten en Fruit* 45(5) : 28-29.
- Tavella, L., A. Arzone and A. Alma. 1991. Researches on *Orius laevigatus* (Fieb.), a predator of *Frankliniella occidentalis* (Perg.) in greenhouses. A preliminary note. IOBC/ WPRS Bulletin XIV/ 5 : 65-72.
- Trottin - Caudal, Y., D. Grasselly, M. Trapateau, H. Dodelin and P. Millot. 1991. Lutte biologique contre *Frankliniella occidentalis* avec *Orius majusculus* sur concombre. IOBC/ WPRS Bulletin XIV/ 5 : 50-56.
- Tommasini, M.G. and G. Nicoli. 1993. Adult activity of four *Orius* species reared on two preys. IOBC/ WPRS Bulletin 16(2) : 181-184.
- Van de Vrie, M. and D. Degheele. 1992. Biological control of the western flower thrips, *Frankliniella occidentalis* (Pergande) (Thysanoptera: Thripidae), in glasshouse sweet peppers with *Orius* spp. (Hemiptera: Anthocoridae). A comparative study between *O. niger* (Wolff) and *O. insidiosus* (Say). *Biocontrol Sci. Technol.* 2 : 281-283.
- Villevieille, M. and P. Millot. 1991. Lutte biologique contre *Frankliniella occidentalis* avec *Orius laevigatus* sur fraisier. IOBC/ WPRS Bulletin XIV/5: 57-64.

Πρώτη Καταγραφή του *Orius niger* (Wolff) στην Ελλάδα

Δ.Π. ΛΥΚΟΥΡΕΣΣΗΣ

Εργαστήριο Γεωργικής Ζωολογίας και
Εντομολογίας
Γεωργικό Πανεπιστήμιο Αθηνών

ΠΕΡΙΛΗΨΗ

Το αρπακτικό ημίπτερο *Orius niger* (Wolff) επισημάνθηκε για πρώτη φορά στην Ελλάδα σε φυτεία βιομηχανικής τομάτας στην περιοχή Βάγια Βοιωτίας κατά τις καλλιεργητικές περιόδους των ετών 1992 και 93. Το *O. niger* είναι κυρίως αρπακτικό θριπών και ιδιαίτερα του θρίπα των ανθέων (*Frankliniella occidentalis* (Perg.)). Είναι μικρό ημίπτερο, μήκους 1,2-2 mm και καστανόμαυρου χρώματος. Χαρακτηριστικό διάκρισής του από τα συγγενή του είδη *Orius minutus* L. και *Orius majusculus* (Renter) είναι ότι φέρει σε κάθε γωνία του προνώτου του μια ευδιάκριτη τρίχα. Επίσης διαφορές υπάρχουν στα εξαρτήματα (parameres) του γεννητικού οπλισμού των αρρένων ατόμων.

KEY WORDS: *Orius niger*, *O. minutus*, *O. majusculus*, Anthocoridae, predators.