First records of the bayberry whitefly, *Parabemisia myricae* (Kuwana) in Greece

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Citrus groves of Corfu had been attacked during the last decade by citrus whitefly *Dialeurodes citri* (Ashmead) (Pappas 1981). It presumably expanded later, and it was found to cause a serious infestation on lemon trees of Achaia region during summer of 1986, while it disappeared later existing today only in very small pockets on ornamental citrus species in Attica area.

Late in August 1988, the leaves of citrus trees, and to a lesser extent of grapevines, in the region of Corinthia, NE Peloponnesos, in South Greece were covered by larvae, pupae and adults of a whitefly that was different from *D. citri*. In autumn of the same year, it was noticed that the infestation of this new whitefly had expanded to other parts of Peloponnese such as Argos, Patras and Ilia region.

Samples of citrus and grapevine leaves with nymphs of the insect were sent for identification to British Museum of Natural History. Dr. J. H. Martin identified the species as *Parabemisia myricae* (Kuwana) (Homoptera: Aleyrodidae), making the first record of the species in Greece. The species is a native of Japan and possibly of other eastern asian countries such as Taiwan and West Malaysia (Rose et al. 1981).

Today, the insect has been recorded in USA (California), Cyprus, Israel and Turkey (Martin 1987), Egypt (Martin personal communication) and it is a pest of woody plants, especially citrus trees and grapevines.

The damage caused to the plants by this insect, as a feeder, can be serious in cases of large populations accompanied with problems associated with the development of sooty mould on the excreted honeydew, as shown in Fig. 1. In the autumn of 1988, infestation was high (more than 20 nymphs/leaf) in Achaia and Corinthia regions of N. Peloponneses, causing great concern to citrus growers.

This species of whitefly was not included in the lists of known plant pests of Greece, Isaakides (1935, 1936, 1939), Pelekasis (1962), Stathopoulos et al. (1967), Anonymous (Volos, 1963), Buchelos and Soueref (1962), Buchelos et al. (1963, 1965), and Mourikis and Vassilaina-Alexopoulou (1975). It is probable that it invaded Greece from Israel.

*P. myricae* is a newly introduced pest in citrus growing countries and there is little information available on its biology and control. Most of the published data comes from Israel and California on the biology and biological control of the insect (Rose et al. 1981, De Bach and Rose 1982, Rose and De Bach 1982, Swirski et al. 1986, 1988). Additional data have been published on flight behaviour (Meyerdick and Moreno 1984), oviposition behaviour, and survival of young nymphs on leaves of different age citrus leaves (Walker 1984).
First flights of adults were noticed in this area in late February of 1989. By end of March early April the emergence of adults of the first 1989 generation had been completed. It seems that it produces a quite large number of generations during the year, as it requires only 21 days at temperatures fluctuating between 21.0°C and 17.3°C and 65-100 percent relative humidity, to complete its cycle in glasshouse (Rose et al. 1981). Being a pest of Citrus and grapevines (Vitis vinifera) it has also been found on hosts like Ficus, Persea, Prunus, Psidium and Thea (Martin 1987). As a matter of fact it has also been found in small colonies on Prunus cerasi in Northern Peloponnesse in autumn 1988. Work on the control of Parabemisia myricae with the insect growth regulator P,p-rofezin has started in Greece in 1988 and is expected to be concluded in 1990.

Acknowledgment

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References


Martin, J. H. 1987. An identification guide to common...
Pelekasis, C. E. D. 1962. List of the most important insects and other animals injurious to the cultivated plants in Greece, during the last thirty years. Annls Inst. Phytopath. Benaki (N.S.) 5: 5-104.

KEY WORDS: Aleurodidae, Parabemisia myricae, Bayberry whitefly, Citrus, Vines

ΠΡΩΤΗ ΑΝΑΦΟΡΑ ΣΤΗΝ ΕΛΛΑΔΑ ΤΟΥ ΑΛΕΥΡΩΔΗ ΤΩΝ ΕΣΠΕΡΙΔΟΕΙΔΩΝ Parabemisia myricae (Kuwana)

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ΠΕΡΙΛΗΨΗ

Το καλοκαίρι του 1988 παρατηρήθηκε έξαρση της προσβολής των εσπεριδοειδών, και της σουλτανίνας σε μικρότερο βαθμό, από αλευρώδη. Η κύρια εστία εντοπίστηκε στην βορειοδυτική Πελοπόννησο. Στα δείγματα που λήφθηκαν από τις περιοχές Ξυλοκάστρου και Πύργου, διαπιστώθηκε η παρουσία του είδους Parabemisia myricae (Kuwana), για πρώτη φορά σε Ευρωπαϊκή χώρα. Ο αλευρώδης αυτός που ενδημεί σε γειτονικές χώρες της Βόρειας Αφρικής και της Μέσης Ανατολής προσβάλει ξυλώδη φυτά προκαλώντας κυρίως έμμεσες ζημιές από τις οποίες η σημαντικότερη είναι η ποιοτική υποβάθμιση των καρπών από την ανάπτυξη μυκήτων πάνω στα εκκρίματα του.

Η βιολογία του έχει μελετηθεί σχετικά λίγο. Είναι γνωστό ότι τα θηλυκά γεννούν αποκλειστικά σε πολύ τρυφερή βλάστηση. Βρέθηκε ότι η γρήγορη ωρίμανση των φύλλων προκαλεί θνησιμότητα των ατελών μορφών. Αναφέρεται ότι ο βιολογικός κύκλος στη διάρκεια του καλοκαιριού διαρκεί περί τις τρεις εβδομάδες.