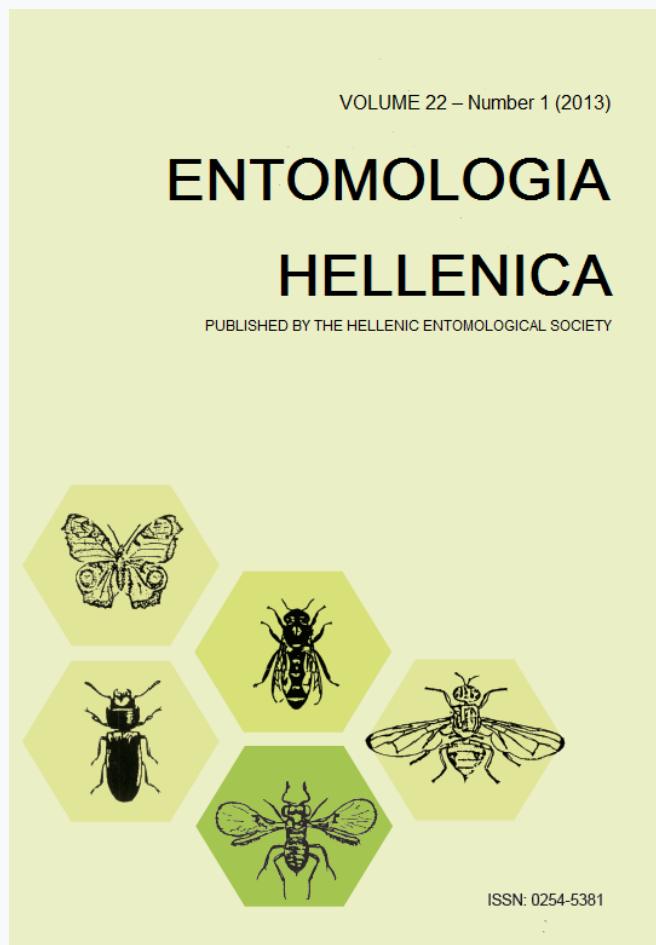


## ENTOMOLOGIA HELLENICA

Vol 22, No 1 (2013)



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doi: [10.12681/eh.11523](https://doi.org/10.12681/eh.11523)

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### To cite this article:

Gkounti, V., & Milonas, P. (2013). First record of the bougainvillea mealybug *Phenacoccus peruvianus* in Greece. *ENTOMOLOGIA HELLENICA*, 22(1), 16–18. <https://doi.org/10.12681/eh.11523>

## First record of the bougainvillea mealybug *Phenacoccus peruvianus* in Greece

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### ABSTRACT

This is the first record of the Bougainvillea mealybug *Phenacoccus peruvianus* in Greece. The mealybug originates from South America and in the last decade has invaded Europe and particularly the Mediterranean basin. It has become a major pest for various ornamental plant species. In Spain, it is found to be parasitized by the parasitoid *Acerophagus* n. sp. near *cocois*.

KEY WORDS: bougainvillea, invasive, mealybugs, parasitoid.

The Bougainvillea mealybug was recorded in Greece, in Voutakos Bay in Paros Island ( $37^{\circ}00'21''N$ ,  $25^{\circ}06'41''E$ ) in autumn of 2012 on *Bougainvillea* sp. during a phytosanitary inspection on ornamental plants in a private garden (Fig. 1). Samples of infested branches were transferred in the Laboratory of Biological Control of Benaki Phytopathological Institute, where species was identified according to Granara de Willink key (2007). Additionally, mounted specimens were sent to Dr G. Pellizzari at the University of Padua for confirmation of the identification.

*Phenacoccus peruvianus* Granara de Willink (Hemiptera: Pseudococcidae) is native to Neotropic region (Peru, Argentina) and has invaded Europe (Granara de Willink and Szumik 2007). It was first reported in the region of Almeria, Spain (1999) on *Bougainvillea glabra*. Later it was found in Sicily, Italy (2002), south East England and Corsica (2005), Portugal (2006), Monaco (2008) and France (2008) on *Bougainvillea* sp. plants while in 2010 was first recorded

on *Justicia suberecta* and *Solanum vespertilio* in Majorca Island (Beltra et al. 2010). Its fast spread throughout the Mediterranean basin is believed to be facilitated by the increase of world trade of ornamental plants (Beltra et al. 2010).

Plant species attacked by *P. peruvianus* belong mainly to the genus *Bougainvillea*. Apart from *Bougainvillea* spp., *P. peruvianus* has been reported to attack several other species belonging to the families Acanthaceae, Amaranthaceae, Asclepiadaceae, Asteraceae, Aucubaceae, Myoporaceae, Scrophulariaceae and Solanaceae (Beltra et al. 2010). Latest research has revealed that the bougainvillea mealybug can successfully complete its life cycle also on *Solanum lycopersicum* L., *Nicotiana tabacum* L., *Aucuba japonica* Thunb. and *Solenospetmon blumei* Benth (Benavent 2012).

The body of the adult female is oval shaped 2.0-3.0mm in length and 1mm in width. Eggs are laid in masses within a waxy ovisac. Damage on the host plant is

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FIG. 1. Bougainvillea infested by the mealybug *Phenacoccus peruvianus*.

similar to other species of mealybugs, by sap sucking and by honeydew secretion, which serves as a substrate for the development of sooty mold. Studies on the natural enemies of *P. peruvianus* in the Mediterranean revealed high levels of parasitization by a species belonging to the genus *Acerophagus*, which is believed to have been accidentally introduced to the area (Beltra et al. 2013). Mealybugs are considered major invasive group and currently one out of four of the mealybug species recorded in Europe are alien species (Pellizzari and Germain 2010).

### Acknowledgments

We would like to thank Dr G. Pellizzari for confirmation of the identified specimens.

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## Πρώτη καταγραφή του ψευδοκόκκου της βουκαμβίλιας *Phenacoccus peruvianus* στην Ελλάδα

**ΒΑΣΙΛΙΚΗ ΓΚΟΥΝΤΗ ΚΑΙ ΠΑΝΑΓΙΩΤΗΣ ΜΥΛΩΝΑΣ**

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### ΠΕΡΙΛΗΨΗ

Ο ψευδοκόκκος της βουκαμβίλιας *Phenacoccus peruvianus* (Hemiptera: Pseudococcidae) καταγράφηκε για πρώτη φορά στην Ελλάδα το φθινόπωρο του 2012 στην περιοχή Βοντάκος της νήσου Πάρου (Γεωγρ. Πλάτος: 37°00'21'', Γεωγρ. Μήκος: 25°06'41''). Το *P. peruvianus* είναι ιθαγενές είδος της νεοτροπικής ζώνης (Περού, Αργεντινή) αλλά αναφέρεται ότι έχει εγκατασταθεί στην Ευρώπη (Αλμερία και Μαγιόρκα Ισπανίας, Σικελία, νοτιοανατολική Αγγλία, Κορσική, Πορτογαλία, Μονακό και Γαλλία).