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The sexuales of giant black bark aphid, *Pterochloroides persicae* (Hemiptera, Aphidoidea: Lachninae)

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Abstract

The oviparous female and male of the giant black bark aphid *Pterochloroides persicae* (Cholodkovsky) are described and illustrated for the first time. Notes on distribution, biology and host plants are presented.

Key words: Aphidoidea, Lachninae, *Pterochloroides persicae*, sexuales

Introduction

The giant black bark aphid (also known as clouded peach bark aphid, cloudy-winged peach aphid or black peach aphid) *Pterochloroides persicae* (Cholodkovsky) belongs to the subfamily Lachninae (Hemiptera, Aphidoidea) and differs from other members of this subfamily in having a double row of large spinal tubercles. This species is a pest of great horticultural importance associated with fruit trees of the genus *Prunus*, mostly *P. armeniaca* (apricot), *P. amygdalus* (almond) and *P. persica* (peach), and has also been recorded from other plants including *Citrus* and *Malus*. Large colonies of these aphids feed on trunks or branches of their host plants (Stoetzel & Miller, 1998). *P. persicae* is widely distributed in southern Europe, the eastern Mediterranean, North Africa and Asia (Blackman & Eastop, 2013) and has pest status in several countries.

The life cycle of this aphid depends on environmental conditions. Most populations, especially those in warm and humid climates, are anholocyclic, reproducing parthenogenetically throughout the year; holocyclic populations with a sexual phase in autumn have only been observed in cooler regions. Archangelsky (1917) in a study of the biology of *P. persicae* in Turkestan observed oviparous females that were very similar to apterous viviparous females, except for their larger size. Talhouk (1972) provided detailed information about the two types of life cycle of this species in Lebanon. In the humid and warmer coastal biotopes populations were anholocyclic, whereas in the dry and colder interior region this species was almost exclusively holocyclic. Males and oviparous females appeared during October–November, and winter eggs were laid from late October to mid-January. Similarly, oviparous females were observed in autumn in favourable climatic conditions in Iran (i.e. higher altitudes of Taftan Mts. and in Teheran Province) (Rakhshani *et al.*, 2005).

Although the sexuales (mostly oviparous females) of *P. persicae* were observed during these field studies they have never been described in detail. During an examination of aphids in the collection of the Museum national d'Histoire naturelle, Paris, France, specimens of oviparous females and male of *P. persicae* were found. They were collected by G. Remaudiere in 1962 in Iran. Recognition of sexual morphs and knowledge of the type of life cycle is important for devising effective control measures, so descriptions of these morphs are presented here.

Material and methods

The specimens were examined using the light microscope Nikon Ni-U. Drawings were made with a camera lucida.