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Short paper

First record of *Phylloplecta trisignata* (Löw, 1886) (Hemiptera: Triozidae) in Iran

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Abstract During a faunistic survey of the jumping plant-lice in the Tehran province of Iran in spring 2016, the blackberry psyllid, *Phylloplecta trisignata* (Löw, 1886), was collected on *Rubus* sp. (Rosales: Rosaceae). This is the first record of the species and the genus *Phylloplecta* for Iran, expanding the known distributional range of the species considerably eastwards.

Keywords: Blackberry psyllid, Psylloidea, *Rubus*

Introduction

Phylloplecta (Hemiptera: Triozidae) was erected by Riley (1884) for the North American *Psylla tripunctata* Fitch, 1851, developing on blackberries (*Rubus* spp., Rosaceae, Rosales). Subsequently, *Phylloplecta* was used to include unrelated triozids bearing a produced anterior margin of the metacoxa (Tuthill, 1943; Mathur, 1975; Hodkinson, 1983; Burckhardt and Lauterer, 1997) until Conci and Tamanini (1984) narrowed the generic definition to contain three Nearctic species, including the type species, and the west Palaearctic *Trioza trisignata* Löw, 1886. In a revision of *Bactericera* Puton, Burckhardt and Lauterer (1997) redefined the genus to include seven Holarctic species; two species were added since. *Phylloplecta* species are, as far as known, univoltine, develop on *Rubus* spp. and overwinter as adults on conifers (Hodkinson, 2009). *Phylloplecta tripunctata* is considered a pest of blackberries in the eastern USA (Mead, 1966).

During the study of jumping plant-lice in the Tehran province (Iran) in spring 2016, the related *Phylloplecta trisignata* (Löw, 1886) was collected on blackberries. Here we report the species and the genus *Phylloplecta* Riley for the first time from Iran.

Materials and Methods

The examined specimens are deposited in the Department of Biodiversity, Institute of Science and High Technology and Environmental Sciences, Graduate University of Advanced Technology, Kerman and the Naturhistorisches Museum Basel, Switzerland. They were identified by the second author.

Results

***Phylloplecta trisignata* (Löw, 1886)**

Trioza tripunctata Löw, 1877, nec Fitch, 1851.
Trioza trisignata Löw, 1886, replacement name for *T. tripunctata* Löw, 1877, nec Fitch, 1851.
Bactericera trisignata (Löw, 1886); Klimaszewski, 1973.

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Phylloplecta trisignata (Löw, 1886); Conci and Tamanini, 1984.

Material examined

IRAN: 8 ♂♂, 10 ♀♀, Tehran province, N 35°48′48", E 51°31′17", 1883 m, June 2016, on *Rubus* sp., leg. M. Lashkari.

Description

Good descriptions are provided by Šulc (1913) and Conci and Tamanini (1984).

Distribution

Recorded from Bulgaria, Croatia, Cyprus, France (including Corsica), Greece, Israel, Italy (including Sicily), Lebanon, Montenegro, Slovenia, Spain (including Mallorca), Switzerland and Turkey (Conci and Tamanini, 1984; Ouvrard, 2017). The records from Germany and Hungary by Ouvrard (2017) are erroneous (Conci and Tamanini, 1984). Here we record the species for the first time from Iran.

Host plants *Rubus corylifolius* auct. group, *R. fruticosus* auct. [L.], *R. sanctus* Schreb. (Conci and Tamanini, 1984).

Discussion

The currently known distribution of *Phylloplecta trisignata* stretches from the Pyrenees mountains and southern France in the west (westernmost locality in the department Charente), along the southern part of the Alps (northernmost locality in Switzerland, Valais near Martigny), the Balkan and eastern Turkey to the Levant in the east (Conci and Tamanini, 1984; Ouvrard, 2017). With the new record from Iran, the known distributional range of *P. trisignata* is considerably expanded eastwards. Whereas the North American close relative *P. tripunctata* is widely distributed in the eastern USA and sometimes considered a pest (Mead, 1966), *P. trisignata* is more restricted in distribution and relatively scarce. So far there are no reports of the species being a pest.

P. trisignata is narrowly oligophagous on *Rubus* species. The records from *Rubus corylifolius* and *R. fruticosus* need confirmation as the taxonomy of these plant species is currently not resolved (The Plant List, 2013).

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اولین گزارش *Phylloplecta trisignata* (Löw, 1886) (Hemiptera: Triozidae) از ایران

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چکیده: در بررسی فونستیک بالاخانواده Psylloidea در بهار سال ۱۳۹۵ از استان تهران، نمونه‌هایی متعلق به پسیل تمشک *Phylloplecta trisignata* (Löw, 1886) از روی تمشک *Rubus* sp. (Rosales, Rosaceae) جمع‌آوری و شناسایی شد. این گونه و جنس برای اولین بار از ایران گزارش می‌شود.

واژگان کلیدی: پسیل تمشک، Psylloidea، *Rubus*