

Cinara fresai (BLANCHARD, 1939) (Hemiptera: Aphidoidea)
– an aphid species new to Poland

Cinara fresai (BLANCHARD, 1939) (Hemiptera: Aphididae)
– nowy gatunek mszycy dla Polski

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ABSTRACT: This is the first report on *Cinara fresai* occurrence in Poland. The apterae viviparous females were described.

KEY WORDS: Aphidoidea, *Cinara* sp., *Juniperus* sp., new record, Poland.

Introduction

Aphid species belonging to *Cinara* (CURTIS, 1835) are connected with the plants of Pinaceae and Cupressaceae families. According to BLACKMAN & EASTOP (1994) 17 *Cinara* species are related to *Juniperus* sp., however, some of them are known only from authors' original reports.

Three of those species have been reported from Poland so far. The one most frequently observed was *Cinara juniperi* (DE GEER, 1773), which occurs in Europe, Middle East, Australia, New Zealand, the USA (BLACKMAN, EASTOP 1994). Another species, *Cinara mordvilkoii* (PAŠEK, 1954) is very rare, reported from the Czech Republic, Poland, Lithuania, Sweden and Italy, from few localities only (SZELEGIEWICZ 1962; HERCZEK et al. 1977; BINAZZI 1996). Both are monophagous species, related only to *Juniperus* sp., particularly to *J. communis* Autor. BLACKMAN & EASTOP (1994) also report that *Cinara cupressi* (BUCTION, 1881) can infest the plants of this ge-

nus. All the species belong to *Cupressobium* BORNER, 1940 subgenus and Lachnidae family (HEIE, WEGIEREK 2009). The conducted studies have reported another species of this subgenus in Poland.

Study area and material examined

The studies conducted in the years 2009–2010 in Rzeszów (UTM: EA74, S-E Poland) reported the occurrence of a new species infesting *Juniperus*, namely *Cinara fresai* (BLANCHARD, 1939). This was the first sighting of this species in Poland. Previously it had been recorded in Central and South America, the USA, Australia, New Zealand, Japan, England and Spain (BLACKMAN, EASTOP 1994).

C. fresai was found in Rzeszów on the branches and trunk of *Juniperus scopulorum* SARG. “Skyrocket”. This oligophagous species, infesting various Cupressaceae (*Juniperus* sp., *Cupressus* sp.), is monoecious and anholocyclic (BLACKMAN, EASTOP 1994). CARTER & MASLEN (1982) give mainly *Juniperus chinensis* L., *J. sabina* L., *J. squamata* BUCH. - HAM. ex LAMB., and *J. virginiana* L. as its host plants. The population of the species was observed in Rzeszów from May to September.

The material examined: 20 apterous viviparae females, 10 nymph (leg. et det. R. DURAK).

Description (based on BLACKMAN & EASTOP 1994)

Apterae pinkish-grey to dark brownish-grey with white wax intersegmentally and with paired black patches on thoracic and anterior abdominal tergites diverging in an inverted “V”. BL 2.2–4.2. Alate have the radial sector not reaching the apex of the forewing.

Description and measurements (R. DURAK)

Apterae viviparous females (Fig. 1)

Colour when alive: dark brownish-grey.

Body: 3.66 mm mean (3.375–3.870); lengths of antenna: 1.41 mm mean (1.35–1.47); lengths of antennal segments: III – 0.48 mm (0.45–0.50); IV – 0.23 mm (0.22–0.25); V – 0.27 mm; VI – 0.25 mm; PT/BASE: 0.01; length of tibia 2.09 mm mean (2.0–2.2); length of sclerotised part of rostrum: 1.59 mm mean (1.58–1.60).

The key to classify the aphid species occurring on *Juniperus* sp. was presented by BLACKMAN & EASTOP (1994). Along with the study by REMAUDIÈRE & BINAZZI (2003) it is available on a website (www.aphidsonwordsplants). It enables to distinguish *C. fresai* from other species related to *Juniperus* sp.



Fig. 1. *Cinara fresai* – apterous vivipara

Ryc. 1. *Cinara fresai* – bezskrzydła dzieworódka

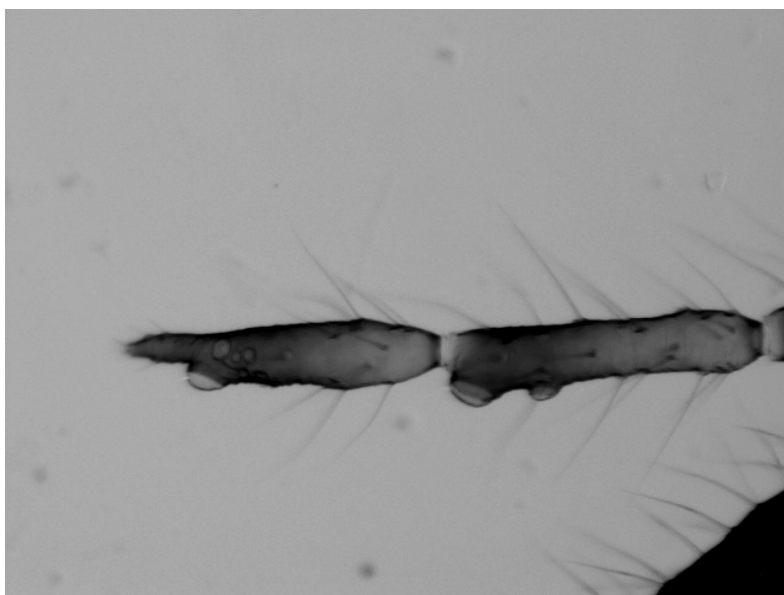


Fig. 2. *C. fresai* – hairs on ANT VI BASE

Ryc. 2. *C. fresai* – włoski na ANT VI BASE



Fig. 3. *C. fresai* – accessory hairs on R IV

Ryc. 3. *C. fresai* – włoski dodatkowe na R IV

i.e. *C. juniperi* and *C. mordvilkoii*. Both *C. juniperi* and *C. mordvilkoii* have hind tibiae wholly dark, while *C. fresai* is distinguished by hind tibiae with a pale section. Thus the species is most similar to *C. cupressi*.

Cinara fresai differs from *C. cupressi* by the number of hairs on ANT VI BASE, as *C. cupressi* has 4–6(7), while *C. fresai* has 7–12 of them (Fig. 2).

Another feature distinguishing both species is the number of accessory hairs on R IV, with *C. cupressi* having 2–4, and *C. fresai* 5–7 of them (Fig. 3) (BLACKMAN & EASTOP 1994).

Bionomics

The aphids were found only on woody plant parts. They preferred the branches and trunk of a host plant and formed very small colonies up to 10 specimens. They were always visited by ants.

STRESZCZENIE

W latach 2009–2010 stwierdzono w Rzeszowie nowy dla fauny Polski gatunek – *Cinara fresai* (BLANCHARD, 1939). Gatunek ten obserwowany był do tej pory w Centralnej i południowej Ameryce, USA, Australii, Nowej Zelandii, Japonii, Anglii i Hiszpanii. Może

żerować na różnych roślinach należących do rodziny Cupressaceae, szczególnie na *Juniperus* sp., i *Cupressus* sp. W Polsce obserwowany był na gałęziach i pniu jałowca skalnego *Juniperus scopulorum* „Skyrocket”. W pracy podano opis bezskrzydłych dzieworódek, cechy wyróżniające ten gatunek oraz dane bionomiczne.

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