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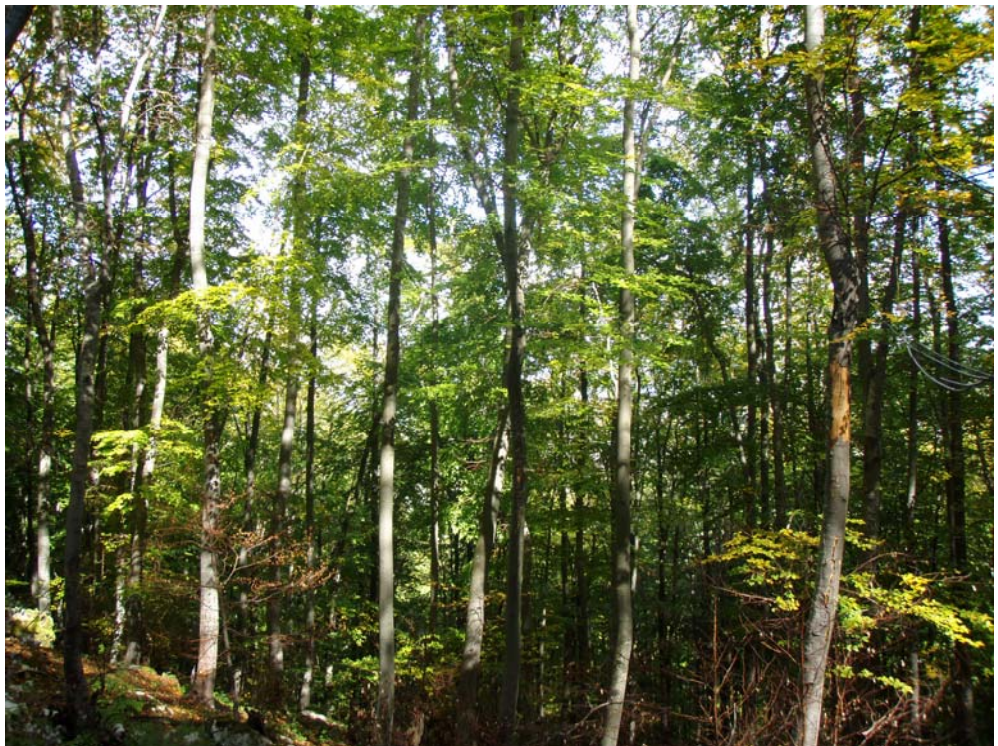


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SUSTAINABLE FORESTRY ODRŽIVO ŠUMARSTVO

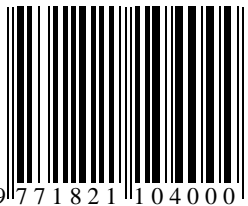
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2009.**

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UDK 630*453:595.752 *Prociphilus fraxinifolii* Riley (497.2) = 111
Original scientific paper

***PROCIPHILUS FRAXINIFOLII* RILEY (HEMIPTERA,
APHIDIDAE, ERIOSOMATINAE) A SPECIES NEW TO THE
BULGARIAN FAUNA**

*Georgi TRENČEV, Katia TRENČEVA*¹

Abstract: *Prociphilus fraxinifolii* Riley (Hemiptera, Aphididae, Eriosomatinae) was observed for the first time in Bulgaria in 2007. This is the third record of the species in Europe. Probably the species was introduced in the country with plant material. It was collected from Sofia on leaves of *Fraxinus pennsylvanica* Marsh. Colonies of compact aphids were observed from May to the end of October. In the second half of September to the mid of October nymphs, apterae viviparae and winged viviparae females can be seen.

Morphological description of species and damage is given.

Key words: Hemiptera, Aphididae, *Prociphilus fraxinifolii*, Bulgaria

1. INTRODUCTION

The species *Prociphilus fraxinifolii* Riley have been described for the first time in 1879 and reported as *Pemphigus fraxinifolii* on *Fraxinus americana* L. (Wilson, Vickery, 1918).

¹ Georgi Trenčev, Katia Trenčeva, University of Forestry, Kliment Ochridski 10, 1756 Sofia, Bulgaria
E-mail: k_trencheva@yahoo.com

In Europe the species is reported by Remaudiere and Ripca (2003) in the region of Budapest, Hungary on *Fraxinus* sp. The second record in Europe of *Prociphilus fraxinifolii* Ril. and first for Serbia have been made by Petrovic et al. (2007). According to them from May till November colonies of the aphid were observed on *Fraxinus pennsylvanica* Marsh. in Belgrade (New Belgrade, Zemum) and Subotica. In Europe on *Fraxinus excelsor* L. two species can develop successfully - *Prociphilus fraxini* F. (*Prociphilus poschingeri* Holzner; *Prociphilus nidificus* Low) and *Prociphilus bumeliae* Schrk. (*Prociphilus eraticus* Koch; *Asiphum ligustrinellum* Koch.), (Blunck, 1957; Remaudiere, Ripca, 2003; Petrovic, 1998; Petrovic et al. 2007).

In Bulgaria four species from genus *Prociphilus* Koch. are known: *Prociphilus fraxini* F., *Prociphilus bumeliae* Schrk, *Prociphilus pini* Burm., (*crataegi* Tullgr.); *Prociphilus tataricus* Rup. (Grigorov, 1980). Four species from genus *Prociphilus* Koch. are known from Serbia (Petrovic et al. 2007) - *Prociphilus bumeliae* Schrk, *Prociphilus fraxini* F., *Prociphilus xylostei* de Geeg, *Prociphilus pini* Burm., *Prociphilus fraxinifolii* Ril.

2. INFORMATION

Prociphilus fraxinifolii Ril. was observed for the first time in Bulgaria in 2007. This is the third record of the species in Europe. Probably it was introduced in the country with plant material. The species was collected from Sofia on leaves of *Fraxinus pennsylvanica* Marsh. Colonies of compact aphids were observed from May to the end of October. In the second half of September to the mid of October nymphs, apterae viviparae and winged viviparae females can be seen. Both species *Prociphilus fraxini* F and *Prociphilus bumeliae* Schrk. develop on their primary host *Fraxinus excelsor* L. to the beginning of early summer and then fly to roots of secondary hosts *Abies* sp. (Blunck, 1957; Wilson, Vickery, 1918; Heie, 1980; Petrovic et al. 2007).

Prociphilus fraxinifolii Ril. can be distinguished from *Prociphilus bumeliae* Schrk. and *Prociphilus fraxini* F. by presence of secondary rhinaria on V and VI antennal segments in alate forms.

The species needs future detail study concerning its biology and distribution in the country.



Figure 1. *Damage at the end of summer*



Figure 2. *Colonies of aphids at the beginning of October*

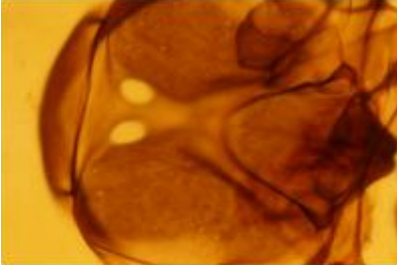


Figure 3. *Wax pore on the thorax viviparae female*



Figure 4. *Tail apterae*

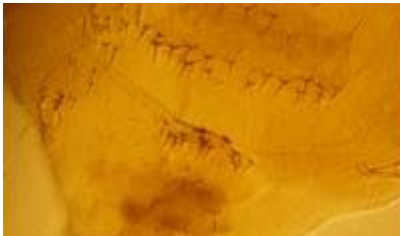


Figure 5. *Genetale plate with tail, segments winged viviparae*



Figure 6. *III-IV anntenal apterae viviparae*



Figure 7. *V anntenal segment with secondary rhinaria*



Figure 8. *VI anntenal segment with secondary rhinaria*

REFERENCES

- Blunck, H.: *Handbuch der Pflanzenkrankheiten*. Band V, Lief.4., p.1-577. 1957.
- Heie, E.: *Fauna Entomologica Scandinavica*, 9, p.1-236. 1980.
- Grigorov, S.: *Leaf Aphides and their control*. Zemizdat, Sofia p.1-285. 1980.
- Petrovic, O. *Check-list of aphids (Homoptera, Aphididae) in Serbia*. Acta entomologica serbica, 3 (1/2): p.9-42.1988.
- Petrovic, O., Tomanovic, L., Paynik, L. and Vucetic, A.: *An invasive species of aphid, Prociphilus fraxinifolii (Homoptera, Aphididae, Eriosomatinae), found in Serbia*. Arch. Biol.Sci., Belgrade, 59 (1). p.9-10. 2007
- Remaudiere, G. and Ripka, G.: *Revue francaise D'entomologie (N.S)*, (3). p.152. 2003.
- Wilson, H. and Vickery, R.: *A species list of the Aphididae of the world and their recorded food plants*. Trans Wisconsin academy, vol.XIX, part I, p26-180, part II, p.181-355. 1918.