

## EIGHT SPECIES OF MIRIDAE (HETEROPTERA) NEW FOR THE FAUNA OF SERBIA

LJ. PROTIĆ

Natural History Museum, P.O. Box 401, YU-11000 Beograd

A part of 4600 specimens of Heteroptera collected in the country surrounding Belgrade from 1995 to 1997 was identified. Eight species of Miridae are new for the fauna of Heteroptera in Serbia. They are: *Campyloneura virgula*, *Macrotylus atricapillus* that are new for Serbia, while six of them, namely: *Macrolophus glaucescens*, *Phytocoris meridionalis*, *Phytocoris reuteri*, *Macrotylus atricapillus*, *Orthotylus viridinervis*, *Campylomma novaki*, *Reuteria marqueti* are new for the fauna of Montenegro too.

KEY WORDS: Heteroptera, Miridae, Serbia, Yugoslavia.

### INTRODUCTION

In the period 1995-97, the Heteroptera collection in the Natural History Museum in Belgrade was enriched by 4600 specimens. The specimens have been collected in various habitats, from weed communities and ruderal vegetation in the neighbourhood of Belgrade to trees and bushes in Belgrade parks and nearby forests. In the course of the identification of only a part of the specimens collected, as many as eight Heteroptera species new for the fauna of Serbia and Yugoslavia were found. The specimens were collected by Aleksandar STOJANOVIĆ, an entomologist of the Natural History Museum in Belgrade. He paid particular attention to trees and bushes, which proved to be very rewarding.

The specimens of all species cited in this paper are kept in the Entomological Collection of the Natural History Museum in Belgrade (600 BEO 0595754).

## LIST OF SITES

The insects were collected in the following ten sites in or near Belgrade [the marks in square brackets indicate UTM codes]:

- Belgrade: Vračar municipality, a private garden [DQ56];
- Surčin, a village in Srem, 18 km W of Belgrade [DQ45];
- Resnik, a Belgrade suburb 12 km S of Belgrade near railway station Jajinci [DQ55];
- Vinča, a village 15 km E of Belgrade, above the Danube, at 260 a.s.l. [DQ65];
- Makiš, a plain of the Sava river towards Obrenovac, 9 km SW of Belgrade [DQ45];
- Mala Moštanica, a village in Posavina, situated 25 km SW from Belgrade, deciduous forest [DQ44];
- Boljevci, the fishpond “Boljevci” in Srem, 23 km SW from Belgrade [DQ35];
- Progar: Bojčinska Šuma, a forest 35 km SW of Belgrade [DQ35];
- Grocka: Begaljica grove of *Quercus cerris* 35 km SE of Belgrade [DQ74];
- Sopot, a village in Šumadija 40 km S of Belgrade, on the slopes of Kosmaj Mt. [DQ62].

## RESULTS

The following eight species of Miridae (Heteroptera) have been found in the country surrounding Belgrade.

*Campylomma novaki* E. Wagner 1951, one male, four females were found at Boljevci, July 21, 1996; Makiš, July 28, 1995; Sopot, September 1, 1995 (Tab. I).

*Campyloneura virgula* (Herrich-Schaeffer, 1835), one female was caught in Belgrade: Vračar, on *Ficus carica*, June 13, 1997.

*Macrolophus glaucescens* Fieber, 1858, two males were found along the road towards the village of Boljevci, July 21, 1996.

*Macrotylus atricapillus* Scott, 1872, three males and two females were found at Resnik, June 16, 1997.

Table I

*Campylomma* species distributed in Serbia and the former Yugoslavia on *Verbascum niger* and some other *Verbascum* species.

<i>C. verbasci</i> (MEYER-DÜR, 1843)	<i>C. novaki</i> WAGNER, 1951	<i>C. nicolasi</i> REUTER, 1883
Antennae pale, straw-coloured;	Antennae pale yellow;	Antennae pale, straw-coloured;
the first antennal segment with a black ring at the top;	the first antennal segment with a black ring at the top;	the first antennal segment with a black half-ring at the top;
the second antennal segment with a wide black ring at the base;	the second antennal segment with a black ring at the base;	the second antennal segment with a narrow black ring at the top;
vertex c. ♂ 1,67-1,75x, ♀ 1,75-1,85x times the width of the eyes;	vertex ♂ ♀ more than twice the width of the eyes;	vertex c. ♂ 1,25x, ♀ 1,6x times the width of the eyes;
body length ♂, ♀ 2,8-3,4 mm	body length ♂ 2,2-2,4 mm ♀ 2,20-2,55 mm	body length ♂ 2,4-2,8 mm ♀ 2,5-2,8 mm
inhabits <i>Verbascum</i> sp. and many other plants; widespread on the whole territory of the former Yugoslavia.	<i>Verbascum nigrum</i> in former Yugoslavia: Dalmatia, Serbia	<i>Verbascum nigrum</i> in former Yugoslavia: Dalmatia
Holarctic	Endemic	Holomediterranean

*Orthotylus (Orthotylus) viridinervis* (Kirschbaum, 1856), one male was collected at Surčin; near the Galovica Channel, on *Prunus cerasifera*, August 22, 1997.

*Phytocoris (Stictophytocoris) meridionalis* (Herrich-Schaeffer, 1835), one male, one female were found at Vinča, on *Acer campestre*, July 29, 1997, and at Bečejica, on *Quercus cerris*, August 9, 1997.

*Phytocoris (Phytocoris) reuteri* Saunders, 1875, one male was taken at Mala Moštanica, in deciduous forest, September 13, 1997.

*Reuteria marqueti* Puton, 1875, eight males, five females were caught in Belgrade: Vračar, on *Vitis vinifera*, July 12, 1996, June 15, 1997, June 21, 1997; at Vinča, July 29, 1997, and Bojčinska forest, August 22, 1997.

## DISCUSSION

The species *Campylomma novaki* (Fig. 1) has previously been recorded on *Verbascum nigrum* at several sites in Dalmatia: Muć, Klis, Split, Omiš, island of Šipan (NOVAK & WAGNER, 1951). The specimens from Dalmatia were collected by Petar NOVAK in the period 1946-48, and were identified by Eduard WAGNER. WAGNER (1975) described the species as limited to Dalmatia. JOSIFOV (1986) stated that in the Balkan Peninsula it had been found in Dalmatia only and that it was endemic. The discovery of the species in the wider area of Belgrade has shown that *C. novaki* occurs further in the land, and is not limited to Dalmatia (Fig. 2). The species is confined to *Verbascum niger* (Tab. I).

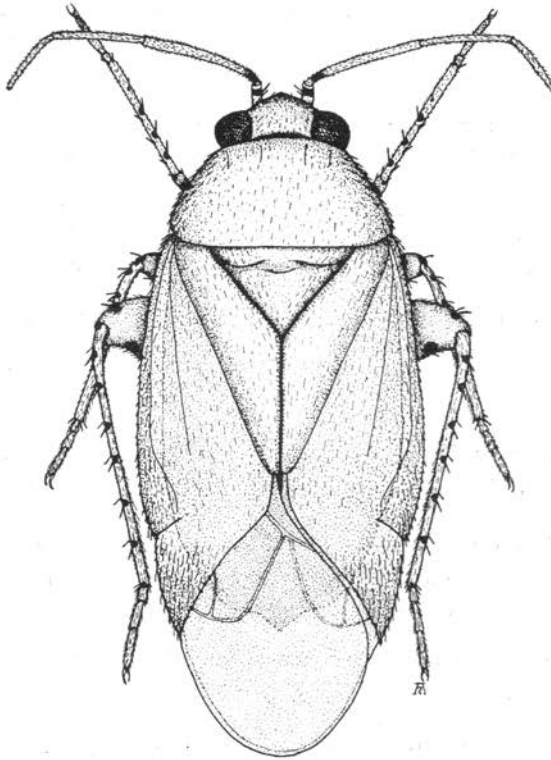


Fig 1. *Campylomma novaki* E. Wagner 1951.

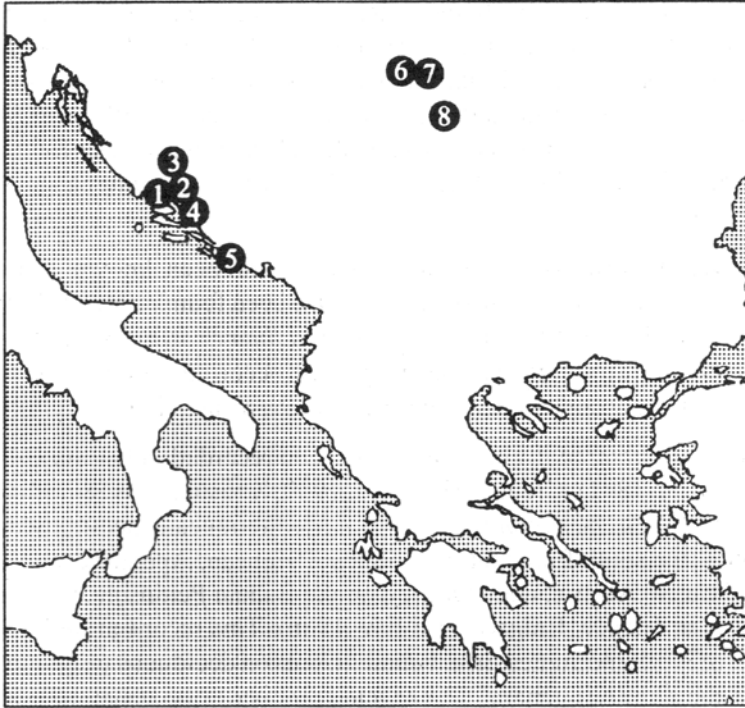


Fig. 2. A sketch map showing the finding sites of the species *Campylomma novaki* on the Balkan Peninsula. Dalmatia: 1 = Split, 2 = Klis, 3 = Muć, 4 = Omiš, 5 = islan of Šipan; Serbia: 6 = Boljevci, 7 = Makiš, 8 = Sopot.

The species *Campyloneura virgula* is distributed in Slovenia (GOGALA & GOGALA, 1986), in Croatia (KORLEVIĆ, 1887; HORVÁTH, 1990; NOVAK & WAGNER, 1951; BALARIN, 1975; FURLAN & GOGALA, 1995), in Bosnia and Herzegovina (APFELBECK, 1891), and in Montenegro (HORVÁTH, 1918). This is the first record of *C. virgula* in Serbia. An Euromediterranean - Central Asian species. It is a zoophagous bug, overwintering in the adult form. It inhabits deciduous trees: *Fraxinus*, *Tilia*, *Quercus*, *Fagus*.

This is the first record of *Macrolophus glaucescens* in Serbia and Yugoslavia. This European species has already been found in Hungary, Bulgaria, and Greece. It inhabits the plants of the genus *Echinops* (WAGNER, 1970/71). The adults appear from July to September.

*Macrotylus atricapillus* is a Mediterranean species distributed in Portugal, France, Italy, the Mediterranean islands (Sicily, Sardinia, Corsica), as well as in Morocco (N

Africa) and Syria (Near East). In the Balkan Peninsula, this species has been found in Dalmatia, Albania, Greece, the island of Crete (JOSIFOV, 1986). Our research into the old literature has enlarged the knowledge on its distribution in the Balkans: the species was also found in Bosnia and Herzegovina (APFELBECK, 1891) and Montenegro (HORVÁTH, 1918). Three males and two females taken at Resnik near Belgrade are the first ones found in Serbia. It was found on *Inula viscosa*. The adults can be found from May until July.

The species *Orthotylus viridinervis* has so far been known from Slovenia (GOGALA & GOGALA, 1986). The species has also been found in Bulgaria and Greece (JOSIFOV, 1986). This is the first record of *O. viridinervis* in Serbia and Yugoslavia. *O. viridinervis* is a Euromediterranean species, occurring on deciduous trees. The adults appear in July and August. The species overwinters in the egg form.

*Phytocoris meridionalis* has previously been recorded in Bosnia and Herzegovina (APFELBECK, 1891), Croatia (HORVÁTH, 1900; KORMILEV, 1928-1929; NOVAK & WAGNER, 1951). *Ph. meridionalis* is a north Mediterranean species, widespread in each of the three south European peninsulas: Pyrenean, Apennine, and Balkan, as well as in France, Austria, and Hungary. In the Balkan Peninsula, it occurs in Dalmatia, Albania, Greece, Bulgaria (JOSIFOV, 1986). This record in Serbia completes the picture of its uninterrupted distribution. It lives on deciduous trees, mostly on the species of the *Quercus* genera. The species produces one generation per year. It overwinters in the egg form. The adults appear in July and August.

The species of *Phytocoris reuteri* has been recorded in Slovenia (GOGALA & GOGALA, 1986) and Croatia (HORVÁTH, 1900). This is a European species. It has so far been recorded only from Bulgaria in the Balkan Peninsula (JOSIFOV, 1986). One male of *Ph. reuteri* taken at Mala Moštanica near Belgrade, Serbia, is therefore the second record of the species in the Balkan Peninsula. It inhabits deciduous trees: *Malus*, *Alnus*, *Quercus*, *Populus*, *Ulmus*, *Ribes*. This is a zoophagous species, that devastates the colonies of *Psylla mali*. It produces only one generation per year. Overwintering in the egg form. The adults appear from July until September (WAGNER, 1970/71).

The species of *Reuteria marqueti* has been recorded in Bosnia and Herzegovina (APFELBECK, 1891), as well as in Albania, Greece, and Bulgaria in the Balkan Peninsula (JOSIFOV, 1986). The specimens from Serbia are the first records for the fauna of Serbia and Montenegro (Yugoslavia). It is a holarctic species that is widespread in Europe, USA, and Mexico (VAN DUZE, 1917; STICHEL, 1956-1958). It inhabits deciduous trees: *Ulmus*, *Tilia*, *Quercus*, *Rubus*. The specimens from Belgrade were caught on vine (*Vitis vinifera*).

## CONCLUSIONS

Two of the eight species identified, *Campyloneura virgula* and *Macrotylus atricapillus*, are new for the Heteroptera fauna of Serbia, whereas six of them, *Macrolophus glaucescens*, *Phytocoris meridionalis*, *Phytocoris reuteri*, *Orthotylus viridinervis*, *Campylomma novaki*, and *Reuteria marqueti* are new for the fauna of Serbia and Montenegro (Yugoslavia).

With these eight species, the number of Miridae species known in Serbia has increased to 243.

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## ОСАМ НОВИХ ВРСТА MIRIDAE (HETEROPTERA) ЗА ФАУНУ СРБИЈЕ

Љ. ПРОТИЋ

### И з в о д

У периоду од 1995. до 1977. збирка Heteroptera Природњачког музеја у Београду обogaћена је са 4600 примерака. Примерци су прикупљани на различитим стаништима, од коровских заједница и рудералне вегетације у околини Београда до дрвећа и шибља у београдским парковима и оближњим шумама. Примерке је сакупио инг. Александар Стојановић, ентомолог у Природњачком музеју у Београду.

После идентификације само једног дела уловљених примерака у наведеном периоду утврђено је чак осам нових врста Heteroptera за фауну Србије и Југославије. Две врсте: *Campyloneura virgula* и *Macrotylus atricapillus* су нове за фауну Хетероптера Србије, а шест врста су нове за фауну Србије и Црне Горе (Југославија): *Macrolophus glaucescens*, *Phytocoris meridionalis*, *Phytocoris reuteri*, *Orthotylus viridinervis*, *Campylomma novaki* и *Reuteria marqueti*. Са ових осам новопронађених врста укупан број познатих врста фамилије Miridae у Србији повећава се на 243.

Од укупно осам обрађених врста у овом раду издвајамо налаз ендемичне врсте *Campylomma novaki* која је до сада била ловљена једино у Далмацији, тако да наши налази у околини Београда значајно проширују њен ареал ка унутрашњости Балканског полуострва.

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