NEW RECORDS OF LANCE FLIES (DIPTERA: LONCHAEIDAE) TO BULGARIA AND MONTENEGRO WITH NOTES ON THE DISTRIBUTION OF THE FAMILY LONCHAEIDAE FOR THE BALKAN PENINSULA

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Abstract

Two species of the family Lonchaeidae (Lonchaea peregrina and Silba fumosa) are recorded as new to the fauna of Bulgaria and one lonchaeid (Lonchaea affinis) is recorded as new to Montenegro and also to the Balkan Peninsula. With these data the number of the Bulgarian lonchaeids is 5 species and for Montenegro is 3. For the Balkan Peninsula the family Lonchaeidae is not well studied and it is average investigated only in Greece where the fauna presents 22 species up to now. The entire number of Lonchaeidae species for the Balkan Peninsula is 26.

Key words: Bulgaria, Montenegro, Lonchaeidae, fauna, new records

INTRODUCTION

Family Lonchaeidae, also called Lance flies encompasses small insects with metallic green, blue or black colored body. The lonchaeids inhabit mainly wooded areas. According to MacGowan (2017) the World fauna is presented with 587 lonchaeids, divided into 9 genera. In Europe the family is presented with two subfamilies encompasses 8 genera with about 100 species.

This family has not been subject of special investigation in Bulgaria and Montenegro and records from these countries are scarce. In Fauna Europaea database is mentioned Dasiops latifrons (Meigen, 1826) for Bulgaria (Carles-Tolra, 2017). MacGowan (2017) listed Silba adipata McAlpine, 1956 for Montenegro and Lonchaea carpathica Kovalev, 1974 for Bulgaria and Montenegro. Doychev et. al. (2016) published Lonchaea fugax Becker, 1895 found in larvae galleries of the spruce bark beetle Ips typographus (Linnaeus, 1758) in Vitosha Mountain, Bulgaria.
MATERIAL AND METHODS

The material was collected in 2002 and 2006 by Malaise traps and tree traps by the second author (Table 1) from Kalimantsi village situated in South Pirin Mountains and Pobeda village situated in the East Rhodopes Mts., along the banks of Kayadzhik Dere River in Bulgaria and Durmitor National Park in Montenegro (Fig. 1). For the determination of the subfamilies, genera and species of the family Lonchaeidae were used books and keys by Stackelberg (1970) MacGowan, Freidberg (2008) and MacGowan (2017), and for the species distribution Carles-Tolra (2017) and MacGowan (2017).

RESULTS

New records for Bulgaria and Montenegro

*Lonchaea affinis* Malloch, 1920
New to Montenegro and the Balkan Peninsula.
General distribution: Europe: Britain, Czech Republic, France, Finland, Italy, Montenegro, Norway, Slovakia, Sweden; North European part of Russia, Northeast Russia; North America: USA.

*Lonchaea peregrina* Becker, 1895
New to Bulgaria.
General distribution: Europe: Bulgaria, Czech Republic, France, Greece, Germany, Hungary, Romania, Switzerland, Sweden, Ukraine.

*Silba fumosa* (Egger, 1864)
New to Bulgaria.
Note: Previously *Silba fumosa* belonged to the genus *Setisquamalonchaea*. In 2013 MacGowan, Okamoto re-evaluated *Setisquamalonchaea* and considering it synonym, added the species to the genus *Silba*.
General distribution: Europe: Austria, Belgium, Britain, Bulgaria, Czech Republic, Denmark, Finland, France, Greece, Germany, Hungary, Ireland, Italy, Poland, Portugal, Romania, Slovakia, Spain, Switzerland, Sweden, The Netherlands; Asia: Israel, Jordania, Uzbekistan; Africa: Morocco; USA: Oregon, California.
With these new data the number of Bulgarian lance flies reaches 5 species [with previously known *Dasiops latifrons* (Meigen, 1826), *Lonchaea carpathica* Kovalev, 1974 and *Lonchaea fugax* Becker, 1895] and for Montenegro is 3 species (with previously known *Lonchaea carpathica* Kovalev, 1974 and *Silba adipata* McAlpine, 1956) which is still insufficient.

### Table 1. Localities of collecting

<table>
<thead>
<tr>
<th>N</th>
<th>Country</th>
<th>District</th>
<th>Dates</th>
<th>Geographical coordinates</th>
<th>Altitude m a.s.l</th>
<th>Habitat</th>
<th>Method of collecting</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Montenegro</td>
<td>Tara Gorge Durmitor National Park/ Devoyachki most Bridge, Tara River</td>
<td>12.-14.VII.2003</td>
<td>N 43.218429° E 19.080354°</td>
<td>560</td>
<td>xeromesophilous scrub</td>
<td>Malaise trap</td>
</tr>
<tr>
<td>3</td>
<td>Bulgaria</td>
<td>East Rhodopes Mts./Kayadzhik Dere River</td>
<td>17.VI.-17.VIII.2006</td>
<td>N 41.439282° E 25.646636°</td>
<td>266</td>
<td>riverbank wood</td>
<td>tree trap</td>
</tr>
</tbody>
</table>

abbreviation: m a.s.l. - meters above sea level

Fig. 1. Map of the Balkan Peninsula with an indication of the studied areas

**DISCUSSION**

With these new data the number of Bulgarian lance flies reaches 5 species [with previously known *Dasiops latifrons* (Meigen, 1826), *Lonchaea carpathica* Kovalev, 1974 and *Lonchaea fugax* Becker, 1895] and for Montenegro is 3 species (with previously known *Lonchaea carpathica* Kovalev, 1974 and *Silba adipata* McAlpine, 1956) which is still insufficient.

Four lonchaeids are known for Serbia (Lonchaea carpathica Kovalev, 1974; Silba adipata McAlpine, 1956; Earomyia crystallophila Becker, 1895) as recently MacGowan, Bächli (2016) described Lonchaea baechlii MacGowan, Bächli 2016 from the same country. To the fauna of Croatia are known 2 lonchaeids up to now (Lonchaea bukowskii Czerny, 1934 and Silba adipata McAlpine, 1956). For Northern Macedonia and Bosnia and Herzegovina is known only one (Silba adipata McAlpine, 1956). After examining the contemporary literature on the spread of the family Lonchaeidae, no results were found for Albania.

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REFERENCES


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