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Several records of Tachinidae (Diptera) reared from their hosts in Serbia and Montenegro

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Abstract:

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During the year 2013 over fifty tachinid flies were reared. Nine tachinid species from two subfamilies were reported for the territory of Serbia and Montenegro. Species *Erynniopsis antennata* and *Phryxe hirta* are recorded for the first time in Serbia.

Key words: Tachinidae, parasitoids, Serbia, Montenegro.

Sažetak:

Stanković, S.S., Žikić, V., Hric, B., Tschorsnig, H.P.: *Nekoliko zapisa iz familije Tachinidae (Diptera) odgajene sa domaćina na teritoriji Srbije i Crne Gore. Biologica Nyssana, 5 (1), Septembar 2014: 71-73.*

Tokom 2013. godine sakupljeno je i odgajeno preko pedeset jedinki tahinida. Devet vrsta tahinida iz dve potfamilije su zabeležene na teritoriji Srbije i Crne Gore. Vrste *Erynniopsis antennata* i *Phryxe hirta* su po prvi put registrovane u Srbiji.

Ključne reči: Tachinidae, parazitoidi, Srbija, Crna Gora.

Introduction

The family Tachinidae is one of the most diverse group among Diptera order, so far over 10 000 species have been described worldwide (Irwin et al., 2003). All members of the family are endoparasitoids of other insects, but few genera attack centipedes, scorpions and spiders (Williams et al., 1990; Vincent, 1985). Many species parasitize economically important

insects such are many species of Lepidoptera, Coleoptera and Symphyta (Eggleton & Belshaw, 1993) Therefore, they have been often used as biocontrol agents against phytophagous pest insects (Grenier, 1988). Most tachinid species parasitize larval stage of their hosts. They deposit eggs on or near the host since they lack an ovipositor, unlike parasitic Hymenoptera to which they share similar life history. The family Tachinidae comprises four subfamilies: Exoristinae,

Dexiinae, Phasiinae and Tachininae (Herting & Dely-Draskovits 1993) According to Fauna Europaea, Internet Database 877 species have been recorded so far. From that number, 242 species are recorded for the territory of ex Serbia and Montenegro state.

During the year 2013 several tachinids were reared in Serbia and Montenegro from a number of lepidopterous, hymenopterous, and coleopterous hosts. The material was bred by B. Hric, Z. Kojičić, A. Petrović, S. Stanković and V. Žikić. The annotated results are listed below. The Remarks are, as far as they are not referenced in detail, based on a catalogue on Palaearctic tachinid-host records which is currently compiled by the last author (Tschorsnig). Two new species are newly reported for the investigated territory, and they are marked by an asterisk (*).

The arrangement and nomenclature of the tachinids follow Herting & Dely-Draskovits (1993). The data mean the date of collection of the host material. The material is stored at the Department of Biology and Ecology, Faculty of Science and mathematics, University of Niš.

Species list

Subfamily Dexiinae

Voria ruralis (Fallén, 1810)

3 ♂, 1 ♀, Serbia, Stara Pazova, 4.VII 2013, ex *Autographa gamma* Linnaeus [Lep. Noctuidae], leg. B. Hric. – Remark: *Voria ruralis* is a common parasitoid of Noctuidae-Plusiinae, with *A. gamma* as a very often reared host.

Subfamily Exoristinae

Ceromasia rubrifrons (Macquart, 1834)

1 ♂, Serbia, Tara, Mitrovac, 27.VI 2013, ex p. *Aporia crataegi* Linnaeus [Lep. Pieridae], leg. V. Žikić. – Remark: *Ceromasia rubrifrons* typically develops in caterpillars of *Zygaena* spp. [Lep. Zygaenidae]. Other lepidopterous host families are only rarely parasitized by this species. Among the Pieridae, *A. crataegi* was not yet known as host, but *Pieris brassicae* Linnaeus was.

Compsilura concinnata (Meigen, 1824)

12 ♂, 14 ♀, Montenegro, Visitor, 8–10.VII 2013, ex l. *Nymphalis antiopa* Linnaeus [Lep. Nymphalidae] on *Salix caprea*, leg. A. Petrović. – Remark: *Compsilura concinnata* is the tachinid species with the largest number of hosts; many records are known from *N. antiopa*.

Drino inconspicua (Meigen, 1830)

2 ♂, 3 ♀, Serbia, Jelašnička Gorge, 14.V 2013, ex *Neodiprion sertifer* Geoffroy [Hym. Diprionidae] on *Pinus* sp., leg. V. Žikić. – 1 ♂, Montenegro, Visitor, 10.VII 2013, ex *Nymphalis antiopa* Linnaeus [Lep. Nymphalidae] on *Salix caprea*, leg. A. Petrović. – 4 ♂, 2 ♀, Montenegro, Plužine, 8.VII 2013, ex *Nymphalis polychloros* Linnaeus on *Salix caprea*, leg. V. Žikić. – Remark: *Neodiprion sertifer* is, among other Diprionidae, a usual host of *Drino inconspicua*. This tachinid is also known from many lepidopterous hosts, but the two often reared Nymphalidae, *N. antiopa* and *N. polychloros* are untypical. Only a single rearing from another nymphalid host, *Vanessa cardui* Linnaeus, was known before (Richter, 1996).

**Erynniopsis antennata* (Rondani, 1861)

3 ♂, 2 ♀, Serbia, Sićevačka Gorge, 28.V 2013, ex *Xanthogaleruca luteola* Müller [Col. Chrysomelidae], leg. Z. Kojičić. – Remark: *Erynniopsis antennata* is an important parasitoid of the elm leaf beetle (see Silvestri, 1910: under the erroneous name *Erynnia nitida*). This tachinid fly was not yet known from Serbia (compare Hubenov, 2008).

**Phryxe hirta* (Bigot, 1880)

2 ♀, Serbia, Vlasina Lake, 15.VI 2013, ex p. *Heterogynis sondereggeri* De Freina [Lep. Heterogynidae] on *Chamaecytisus heuffelii*, leg. V. Žikić. – Remark: *Phryxe hirta* is well-known as a tachinid specialized on the genus *Heterogynis* (see De Freina & Tschorsnig, 2005), but *H. sondereggeri* as a new described moth for the world fauna has recorded only once (Žikić et al., unpublished). *P. hirta* is herewith also recorded for the first time from Serbia.

Senometopia separata (Rondani, 1859)

1 ♀, Serbia, Bovansko Lake, 9.VI 2013, ex *Lymantria dispar* Linnaeus [Lep. Lymantriidae] on *Prunus domestica*, leg. V. Žikić. – Remark: *S. separata* is a common parasitoid of *L. dispar*. Records from this host were also already known from Serbia (Sisojević, 1959).

Sturmia bella (Meigen, 1824)

1 ♀, Serbia, Stara Pazova, 5.VII 2013, ex *Vanessa atalanta* Linnaeus [Lep. Nymphalidae], leg. B. Hric. – 1 ♀, Serbia, Stara Pazova, 2.VII 2013, ex *Vanessa cardui* Linnaeus [Lep. Nymphalidae], leg. B. Hric. – Remark: *Sturmia bella* is a common parasitoid of Nymphalidae. Abundant records exist for the hosts *V. atalanta* and

V. cardui, for the latter also from Serbia (Lehrer & Dobrivojević, 1967).

***Winthemia quadripustulata* (Fabricius, 1794)**

1 ♀, Serbia, Vlasina Lake, 21.VII 2013, ex l. *Cucullia lanceolata* Villers [Lep. Noctuidae] on *Verbascum thaspus*, leg. S. Stanković. – 1 ♂, Serbia, Jerma Canyon, 19.VII 2013, ex *Cucullia* sp., leg. V. Žikić. – Remark: *Cucullia* spp. belong to the preferred hosts of *W. quadripustulata*, but the species *C. lanceolata* becomes known for the first time.

Here we report nine tachinid species form two subfamilies for the territory of Serbia and Montenegro. Species *Erynniopsis antennata* and *Phryxe hirta* are recorded for the first time in Serbia. Also, for two species of Tachinidae we report new hosts. *Cucullia lanceolata* is a new host for *Winthemia quadripustulata*, while *Aporia crataegi* is new host for *Ceromasia rubrifrons*.

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