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CONTRIBUTIONS TO THE OPIINAE (HYMENOPTERA: BRACONIDAE) OF SERBIA AND MONTENEGRO

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Abstract

This is the first report on the fauna of the subfamily Opiinae (Hymenoptera: Braconidae) in Serbia and Montenegro for the period of 1980 to 1997. The sweeping net method was used for collecting adult specimens from various habitats, mostly in canyons and mountain regions. A total of 39 species from 9 genera of Opiinae were identified. Twenty-eight species are recorded as new for the investigated territory; four genera are new for the territory of Serbia, and one genus for the territory of Montenegro.

KEY WORDS: Serbia, Montenegro, Braconidae, Opiinae

Introduction

The subfamily Opiinae is a very large group of small parasitic wasps (1.5-5 mm) with more than 1863 described species worldwide belonging to 33 genera (Yu *et al.*, 2012). Body colour is usually brown to black, rarely yellowish with yellow legs. Opiinae belong to the lineage of cyclostome braconid subfamilies which means that they belong to the group with a hypoclypeal depression above the mandibles. The ventral margin of the clypeus in Opiinae is variable, varying from weakly concave to straight, rarely triangularly protruding (WHARTON, 1988). All species are solitary (ovo-)larval koinobionts exclusively attacking phytophagous cyclorrhaphous flies (FISCHER, 1971). Their hosts are leaf-miners belonging to the families Agromyzidae and Anthomyiidae or fruit infesting larvae of Tephritidae (FISCHER, 1971, 1972, 1977, 1987; SHAW & HUDDLESTON,

1991). The most specialized genera among Opiinae are the genera *Opius* Wesmael, 1835 and *Phaedrotoma* Foerster, 1862, a species which parasitizes leaf-mining Agromyzidae and Anthomyiidae (*Pegomyza* Schnabl and Dziedzicki; *Chirosia* Rondani) and some Tephritidae (SHAW & HUDDLESTON, 1991). The subfamilies Opiinae and Alysinae are sister groups (Dowton *et al.* 1998; Gimeno *et al.* 1997); leaf-miners are also the target group for part of the Alysinae (e.g. *Dacnusa* Haliday 1833, *Chorebus* Haliday 1833) but they have a narrower host range than Opiinae.

The fauna of Opiinae is poorly investigated in the territory of Serbia and Montenegro as well in the territory of former Yugoslavia. First information about the species presence was given by FISCHER (1959, 1971), PAPP (1973, 1990), and later BRAJKOVIĆ (1989, 1997). The last published data are the result of the material sampled in Montenegro on Mt. Durmitor in 1982, published 23 years later by BRAJKOVIĆ *et al.* (2005), including 10 species of the subfamily Opiinae: *Opius peterseni* Fischer 1964, *O. caudatus* Wesmael 1835, *O. parvungula* Thomson 1895, *O. levis* Wesmael 1835, *O. pallipes* Wesmael 1835, *O. quasiquisti* Fischer 1991, *O. exilis* Haliday 1837, *O. filicornis* Thomson 1895, *O. lugens* Haliday 1837, and *O. meracus* Fischer 1960, all identified by M. FISCHER.

Material and Methods

Collected specimens of Opiinae were sampled from various habitats in Serbia and Montenegro from 1980 – 1997. The majority of the sampled material comes from canyons and mountainous regions. Sweep nets were used to obtain specimens. Specimens were mounted on triangular cards, pinned and appropriately labelled. One part of the specimens is deposited at the faculty of Sciences and Mathematics, Dept. of Biology and Ecology, University of Niš, Serbia, whereas the others are deposited at the Naturalis Biodiversity Center, Leiden, The Netherlands.

The classification of the Opiinae which is used here is according to the Fauna Europaea web site (van Achterberg 2012) and Taxapad data base (Yu *et al.* 2012).

Altitudes (m a.s.l.) for all localities were listed in alphabetical order. For Serbia: Avala 400, Bor: Zlot 270, Goč: Crni vrh 1400, Goč: N. B. Greben 950, Goč: N. B. Jezero, lake 750, Kosjerić: Tubići 670, Kovilovo 70, Prokuplje: Mala Draguša 320, Sićevačka klisura: Ostrovica 500, Sićevačka klisura: Prosek 400, Soko Banja: Bovansko Jezero, lake 300, Stara Mt: Topli Do 730, Užice: Duboko 700, Užice: Lokva 500, Užice: Trešnjica 600, Užice: Vrutci 620. For Montenegro: Barno Jezero, lake 1488, Crno Jezero, lake 1778, Durmitor 1450, Durmitor: Mali Medjed 1850, Durmitor: Virak 1530, Pitomine 1500, Sušica River Canyon 750, Tara River Canyon 850, Vražje Jezero, lake 1400, Žabljak 1450, Zminje Jezero, lake 1540.

Results

From the analyzed material we have identified 39 Opiinae species from nine genera (Table I). In the subsequent list the genera and species names are arranged alphabetically. The locality, date and the collector are presented for every species. Newly recorded species and genera for the investigated territory are marked by an asterisk. For every species (except five of them) in Table I the list of known hosts are given along with their family according to the Taxapad data base and the relevant literature referring to each species where possible.

Faunistic List

Genus *Apodesmia* Foerster 1862

**A. curvata* (Fischer 1957) – SRB, Sićevačka Klisura: Ostrovica, 1♂, 1♀, 15.VIII 1997, V. Žikić; SRB, Sićevačka Klisura: Prosek, 1♀, 22.IX 1997, V. Žikić.

**A. irregularis* (Wesmael 1935) – SRB, Užice: Duboko, 1♀, 25.V 1992, M. Brajković; SRB, Goč: N. B. Jezero, lake, 1♂, 15.IX 1992, Ž. Tomanović; SRB, Sićevačka Klisura: Ostrovica, 1♀, 15.VIII 1997, V. Žikić.

A. similis (Szépligeti 1898) – MNE, Crno Jezero, lake, 1♂, 02.VIII 1982, M. Brajković.

Genus **Atormus* van Achterberg 1997

**A. victus* (Haliday 1837) – SRB, Goč: N. B. Greben, 1♀, 17.IX 1992, M. Brajković.

Genus **Biophthora* Foerster 1862

**B. bajulus* (Haliday 1837) – SRB, Kovilovo, 1♀, 14.V 1982, 1♂, 10.V 1992, M. Brajković.

Genus **Diachasma* Foerster, 1862

**D. cephalotes* (Wesmael 1835) – SRB, Niška Banja: Prosek, 1♂, 10.IX 1997, V. Žikić.

Genus *Opius* Wesmael 1835

**O. singularis* Wesmael 1835 – MNE, Žabljak, 1♀, 28.VI 1983, M. Brajković.

**O. pulicariae* Fischer 1969 – MNE, Sušica River Canyon, 2♀, 08.VIII 1983, M. Brajković.

**O. gracilis* Fischer 1957 – SRB, Užice: Trešnjica, 1♀, 8.VIII 1992, Ž. Tomanović; SRB, Sićevačka Klisura: Ostrovica, 2♀, 20.V 1996, 27.VII 1997, V. Žikić.

**O. tersus* (Förster 1862) – SRB, Užice: Trešnjica, 1♀, 08.VIII 1992, Ž. Tomanović; SRB, Užice: Duboko, 1♂, 13.VIII 1992, Ž. Tomanović.

**O. inancae* Fischer & Beyarslan 2005 – SRB, Sićevačka Klisura: Ostrovica, 1♀, 21.IV 1996, V. Žikić.

**O. pestarus* Fischer 1990 – SRB, Sićevačka Klisura: Ostrovica, 1♀, 2♂, 15.VIII 1997, 1♀, 24.XI 1997, V. Žikić; SRB, Sićevačka Klisura: Prosek, 1♀, 1♂, 22.IX 1997, 3♀, 29.IX 1997, V. Žikić.

**O. ambiguus* Wesmael 1835 – SRB, Soko Banja: Bovansko Jezero, lake, 1♂, 13.VI 2009, V. Žikić.

**O. orbulator* (Nees 1811) – SRB, Prokuplje: Mala Draguša, 1♀, 1♂, 28.VIII 1987, A. Četković; SRB, Sićevačka Klisura: Ostrovica, 1♀, 29.IX 1997, V. Žikić.

**O. peterseni* Fischer 1964 – MNE, Durmitor: Crno jezero, 1♀, VIII 1982, M. Brajković.

**O. pygmaeator* (Nees 1811) – MNE, Crno Jezero, lake, 1♀, VIII 1982, M. Brajković.

**O. pendulus* Haliday 1837 – SRB, Užice: Duboko, 1♂, 25.V 1992, M. Brajković.

O. lucidus Szépligeti 1896 – SRB, Goč: Crni Vrh, 1♂, 16.IX 1992, Ž. Tomanović; SRB, Stara Mt: Topli Do, 1♀, 29.VII 1983, M. Brajković.

O. levis Wesmael 1835 – SRB, Goč: N. B. Jezero, lake, 2♀, 15.IX 1992, M. Brajković; 3♀, 15.IX 1992, 1♀, 17.IX 1992, Ž. Tomanović; SRB, Goč: V. Livada, 1♀, 16.IX 1992, Ž. Tomanović; SRB, Sićevačka Klisura: Ostrovica, 1♀, 20.V 1996, V. Žikić; MNE, Žabljak, 1♂, 01.VIII 1982, M. Brajković; 1♂, 03.IX 1982, Z. Bulić; 1♀, 28.VI 1983, M. Brajković; MNE, Crno Jezero, lake, 1♂, 02.VIII 1982, M. Brajković; MNE, Barno Jezero,

lake, 1♂, 02.VIII 1982, M. Brajković; MNE, Zminje Jezero, lake, 1♂, 04.VIII 1982, M. Brajković; MNE, Pitomine, 3♂, 18.VIII 1982, M. Brajković; MNE, Tara River Canyon, 2♂, 03-04.IX 1982, M. Brajković.

O. nigricoloratus Fischer 1958 – SRB, Bor: Zlot, 1♀, 01.V 1987, M. Brajković; SRB, Sićevačka Klisura: Ostrovica, 1♀, 21.IV 1996, 1♂, 15.VIII 1997, V. Žikić.

O. longicornis (Thomson 1895) – MNE, Durmitor: Crno Jezero, lake, 1♀, VIII 1982, M. Brajković.

O. lugens Haliday 1837 – MNE, Tara River Canyon, 2♂, 04.IX 1982, M. Brajković.

O. pallipes Wesmael 1835 – SRB, Užice: Trešnjica, 7♀, 11♂, 08.VIII 1992, Ž. Tomanović; SRB, Užice: Duboko, 1♂, 13.VIII 1992, Ž. Tomanović; SRB, Goč: N. B. Jezero, lake, 1♂, 15.IX 1992, Ž. Tomanović; SRB, Užice: Lokva, 1♀, 13.VIII 1992, Ž. Tomanović; SRB, Sićevačka Klisura: Ostrovica, 1♀, 14.X 1996, V. Žikić; MNE, Durmitor, 1♀, 10.VIII 1980, M. Brajković; MNE, Zminje Jezero, lake, 1♀, 04.VIII 1982, M. Brajković; MNE, Tara River Canyon, 2♀, 1♂, 04.IX 1982, M. Brajković; MNE, Durmitor: Virak, 1♂, 12.VIII 1988, M. Brajković; MNE, Durmitor: Mali Medjed, 1♀, 4.VIII 2002, V. Žikić.

Genus *Phaedrotoma* Förster 1862

**Ph. aethiops* (Haliday 1837) – SRB, Kovilovo, 1♀, 14.V 1992, M. Brajković.

**Ph. depeculator* Förster 1862 – SRB, Užice: Duboko, 1♀, 13.VIII 1992, Ž. Tomanović; SRB, Užice: Lokva, 2♀, 1♂, 14.VIII 1992, Ž. Tomanović; SRB, Sićevačka Klisura: Ostrovica, 1♀, 29.IX 1997, V. Žikić; MNE, Vražje Jezero, lake, 1♀, 05.VIII 1982, M. Brajković.

**Ph. diversa* (Szépliget 1898) – SRB, Užice: Vrutci, 1♂, 11.VIII 1992, Ž. Tomanović; SRB, Užice: Duboko, 1♀, 1♂, 13.VIII 1992, Ž. Tomanović; SRB, Užice: Lokva, 1♂, 14.VIII 1992, Ž. Tomanović; MNE, Zminje Jezero, lake, 1♂, 05.IX 1982, Z. Bulić.

**Ph. diversiformis* Fischer 1960 – SRB, Kosjerić: Tubići, 1♀, 9.VII 1983, M. Brajković.

Ph. exigua (Wesmael 1835) – SRB, Beograd: Voždovac, 2♂, 3♀, 7.IX 1984, A. Četković; SRB, Užice: Trešnjica, 1♀, 1♂, 08.VIII 1992, Ž. Tomanović; SRB, Užice: Duboko, 2♀, 13.VIII 1992, Ž. Tomanović; SRB, Užice: Lokva, 1♀, 14.VIII 1992, Ž. Tomanović; SRB, Goč: N. B. Greben, 17.IX 1992, 1♀, Ž. Tomanović; SRB, Sićevačka Klisura: Ostrovica, 2♂, 1♀, 14.X 1996, 1♀, 15.V 1997, 2♀, 1♂, 27.VII 1997, 2♀, 15.VIII 1997, 3♀, 10.IX 1997, 2♀, 29.IX 1997, 5♀, 22.X 1997, 1♀, 27.XII 1997, V. Žikić.

**Ph. ochrogaster* (Wesmael 1835) – SRB, Goč: Crni Vrh, 1♂, 16.IX 1992, M. Brajković.

**Ph. peterseni* (Fischer 1964) – MNE, Crno Jezero, lake, VIII 1♀, 1982, M. Brajković.

Ph. quasihvisti (Fischer 1991) – MNE, Tara River Canyon, 2♀, 04.IX 1982, M. Brajković.

**Ph. rhodopicola* (Zaykov & Fischer 1986) – SRB, Kovilovo, 1♀, 10.V 1992, M. Brajković.

**Ph. rudis* (Wesmael 1835) – SRB, Kovilovo, 1♀, 1♂, 07.V 1992, 1♀, 10.V 1992, M. Brajković.

**Ph. staryi* (Fischer 1958) – SRB, Sićevačka Klisura: Ostrovica, 2♀, 15.V 1997, 29.IX 1997, V. Žikić.

Genus **Rhogadopsis* Brèthes 1913

**Rh. reconditor* (Wesmael 1835) – SRB, Avala, 1♀, 14.IX 1986, A. Četković; MNE, Durmitor, 1♀, 2.VIII 1983, M. Brajković.

Genus *Utetes* Foerster 1862

U. caudatus (Wesmael 1835) – MNE, Žabljak, 1♂, 03.IX 1982, Z. Bulić.

U. rotundiventris (Thomson 1895) – SRB, Goč: N. B. Jezero, lake, 1♀, 15.IX 1992, Ž. Tomanović.

Genus *Xynobius* Foerster 1862

**X. macrocerus* (Thomson 1895) – MNE, Zminje Jezero, lake, 1♂, 08.IX 1982, Z. Bulić.

**X. maculipes* (Wesmael 1835) – SRB, Kovilovo, 1♀, 1♂, 07.V 1992, M. Brajković.

Table I. List of Opiinae species and their hosts known in the world fauna.

Species	Country	Hosts
<i>Apodesmia curvata</i> *	SRB	no data
<i>A. irregularis</i> *	SRB	<i>Chromatomyia primulae</i> (Agromyzidae); <i>Pegomya solennis</i> (Anthomyiidae); <i>Asphondylia verbasci</i> (Cecidomyiidae); <i>Hydrellia griseola</i> (Ephydriidae); <i>Tephritis leontodontis</i> (Tephritidae).
<i>A. similis</i>	MNE	<i>Agromyza anthracina</i> , <i>A. potentillae</i> , <i>A. pulla</i> , <i>Amauromyza gyrans</i> , <i>A. labiatarum</i> , <i>Aulagromyza buhri</i> , <i>Calycomyza solidaginis</i> , <i>Cerodontha bimaculata</i> , <i>C. caricicola</i> , <i>C. caricicola</i> , <i>C. chaixiana</i> , <i>C. morosa</i> , <i>C. silvatica</i> , <i>Chromatomyia aprilina</i> , <i>Ch. loniceriae</i> , <i>Ch. millii</i> , <i>Ch. periclymeni</i> , <i>Ch. ramosa</i> , <i>Ch. syngenesiae</i> , <i>Galiomyza violiphaga</i> , <i>Liriomyza amoena</i> , <i>L. centaureae</i> , <i>L. cyclaminis</i> , <i>L. flaveola</i> , <i>L. pascuum</i> , <i>Napomyza xylostei</i> , <i>Ophiomyia maura</i> , <i>Phytomyza affinis</i> , <i>Ph. alpina</i> , <i>Ph. angelicae</i> , <i>Ph. astrantiae</i> , <i>Ph. bellidina</i> , <i>Ph. campanulae</i> , <i>Ph. lappina</i> , <i>Ph. marginella</i> , <i>Ph. myosotica</i> , <i>Ph. obscura</i> , <i>Ph. obscurella</i> , <i>Ph. sedicola</i> , <i>Ph. senecionis</i> , <i>Ph. solidaginis</i> , <i>Ph. tussilaginis</i> (Agromyzidae).
<i>Atormus victus</i> *	SRB	<i>Agromyza abiens</i> , <i>A. alnibetulae</i> ; <i>A. anthracina</i> ; <i>A. arunci</i> , <i>A. nigripes</i> ; <i>A. pseudoreptans</i> ; <i>A. reptans</i> ; <i>Amauromyza labiatarum</i> , <i>Aulagromyza hendeliana</i> , <i>Cerodontha pygmaea</i> , <i>Chromatomyia periclymeni</i> , <i>Liriomyza amoena</i> , <i>L. eupatorii</i> , <i>Phytomyza actaeae</i> , <i>Ph. angelicastroi</i> , <i>Ph. chaerophylli</i> , <i>Ph. heracleana</i> (Agromyzidae).
<i>Biophthora bajulus</i> *	SRB	no data
<i>Diachasma cephalotes</i> *	SRB	no reliable data, the record of <i>Scolytus rugulosus</i> (Scolytidae) is incorrect
<i>Opius ambiguus</i> *	SRB	<i>Agromyza albipennis</i> , <i>A. anthracina</i> , <i>A. nigrescens</i> , <i>A. pseudoreptans</i> , <i>A. reptans</i> , <i>Aulagromyza buhri</i> , <i>Cerodontha caricicola</i> , <i>C. flavocingulata</i> , <i>C. incise</i> , <i>C. luzulae</i> , <i>Chromatomyia horticola</i> , <i>Ch. millii</i> , <i>Liriomyza pusio</i> , <i>Nemorimyza posticata</i> , <i>Phytomyza aegopodii</i> , <i>Ph. alpine</i> , <i>Phytomyza angelicae</i> , <i>Ph. angelicastroi</i> , <i>Ph. lappae</i> , <i>Ph. lappina</i> , <i>Ph. marginella</i> , <i>Ph. montana</i> , <i>Ph. sphondyliivora</i> (Agromyzidae).
<i>O. gracilis</i> *	SRB	<i>Agromyza bicophaga</i> , <i>A. pulla</i> , <i>A. rondensis</i> , <i>Amauromyza gyrans</i> , <i>Chromatomyia syngenesiae</i> , <i>Liriomyza sonchi</i> , <i>L. strigata</i> , <i>L. trifolii</i> , <i>Napomyza xylostei</i> , <i>Phytomyza anemones pulsatilla</i> , <i>Ph. dauci</i> , <i>Ph. ferulae</i> , <i>Ph. obscura</i> , <i>Ph. origani</i> , <i>Ph. silai</i> , <i>Ph. Spondylii</i> (Agromyzidae).
<i>O. inancae</i> *	SRB	no data
<i>O. levis</i>	SRB/MNE	<i>Agromyza nana</i> , <i>Liriomyza congesta</i> , <i>L. flaveola</i> , <i>L. strigata</i> , <i>Phytomyza crassiseta</i> , <i>Ph. glechomae</i> , <i>Ph. scotina</i> , <i>Scaptomyza graminum</i> (Agromyzidae).
<i>O. longicornis</i>	MNE	<i>Phytomyza isais</i> (Agromyzidae).
<i>O. lucidus</i>	SRB	<i>Asphondylia verbasci</i> (Cecidomyiidae).
<i>O. lugens</i>	MNE	<i>Chromatomyia syngenesiae</i> , <i>Liriomyza congesta</i> , <i>L. pusilla</i> , <i>L. trifolii</i> , <i>Ophiomyia</i> sp., <i>Phytomyza thyme</i> (Agromyzidae); <i>Asphondylia verbasci</i> (Cecidomyiidae); <i>Ensina sonchi</i> (Tephritidae).
<i>O. nigricoloratus</i>	SRB	<i>Amauromyza verbasci</i> (Agromyzidae).
<i>O. orbiculator</i> *	SRB	<i>Phytomyza affinis</i> , <i>Ph. ranunculi</i> ; <i>Ph. solidaginis</i> (Agromyzidae).
<i>O. pallipes</i>	SRB/MNE	<i>Agromyza nigrescens</i> , <i>A. potentillae</i> ; <i>A. labiatarum</i> , <i>Amauromyza verbasci</i> , <i>Aulagromyza hendeliana</i> , <i>A. tremulae</i> , <i>Cerodontha angulata</i> , <i>Chromatomyia horticola</i> , <i>Ch. periclymeni</i> , <i>Liriomyza amarellae</i> , <i>L. bryoniae</i> ; <i>L. centaureae</i> , <i>L. eupatoriana</i> , <i>L. huidobrensis</i> , <i>L. pusio</i> , <i>L. strigata</i> , <i>L. taraxaci</i> , <i>L. wachtlii</i> , <i>Ophiomyia maura</i> , <i>Phytomyza angelicae</i> , <i>Ph. fallaciosa</i> , <i>Ph. ferulae</i> , <i>Ph. kyffhusana</i> , <i>Ph. leucantheri</i> ,

Species	Country	Hosts	(Table I - continued)
<i>O. pallipes</i>	SRB/MNE	<i>Ph. minuscula</i> , <i>Ph. obscura</i> , <i>Ph. paulloewii</i> , <i>Ph. pullula</i> , <i>Ph. ranunculi</i> , <i>Ph. spondylii</i> , <i>Ph. thysseolini</i> (Agromyzidae); <i>Anthomyia rumicis</i> , <i>Delia echinata</i> , <i>Pegomya bicolor</i> , <i>P. solennis</i> (Anthomyiidae); <i>Scaptomyza flava</i> , <i>S. graminum</i> , <i>S. graminum</i> (Drosophilidae); <i>Scathophaga</i> sp. (Scatophagidae); <i>Euleia heraclei</i> , <i>Philophylla caesio</i> , <i>Sphenella marginata</i> , <i>Vidalia spinifrons</i> (Tephritidae).	
<i>O. pendulus</i> *	SRB	<i>Liriomyza congesta</i> , <i>Phytomyza cineracea</i> , <i>Ph. cineracea</i> , <i>Ph. evanescens</i> , <i>Ph. nigrifolia</i> (Agromyzidae).	
<i>O. pestarus</i> *	SRB	no data	
<i>O. peterseni</i> *	MNE	no data	
<i>O. pulicariae</i> *	MNE	<i>Chromatomyia syngenesiae</i> , <i>Ophiomyia pulicaria</i> , <i>Phytomyza ranunculi</i> (Agromyzidae).	
<i>O. pygmaeator</i> *	MNE	<i>Liriomyza congesta</i> , <i>L. huidobrensis</i> ; <i>Phytomyza cineracea</i> , <i>Ph. evanescens</i> (Agromyzidae); <i>Chaetostomella cylindrical</i> (Tephritidae).	
<i>O. singularis</i> *	MNE	<i>Agromyza abiens</i> , <i>A. agrosticola</i> , <i>A. alnibetulae</i> , <i>A. anthracina</i> , <i>A. arunci</i> , <i>A. ferruginosa</i> , <i>A. myosotidis</i> , <i>A. nigripes</i> , <i>A. potentillae</i> , <i>A. pseudoreptans</i> , <i>A. pseudorufipes</i> , <i>A. reptans</i> , <i>A. rufipes</i> , <i>Amauromyza labiatarum</i> , <i>Aulagromyza hendeliana</i> , <i>Cerodontha pygmaea</i> , <i>Chromatomyia periclymeni</i> , <i>Liriomyza amoena</i> , <i>L. eupatorii</i> , <i>Phytomyza actaeae</i> , <i>Ph. angelicastris</i> , <i>Ph. chaerophylli</i> , <i>Ph. heracleana</i> (Agromyzidae).	
<i>O. tersus</i> *	SRB	<i>Amauromyza flavifrons</i> , <i>Chromatomyia horticola</i> , <i>Liriomyza bryoniae</i> , <i>L. pisivora</i> , <i>L. pusilla</i> , <i>L. sonchi</i> , <i>Phytomyza scotina</i> (Agromyzidae).	
<i>Phaedrotoma aethiops</i> *	SRB	<i>Cerodontha denticornis</i> , <i>Chromatomyia milii</i> (Agromyzidae).	
<i>Ph. depeculator</i> *	SRB/MNE	<i>Cerodontha denticornis</i> , <i>Chromatomyia ramosa</i> , <i>Ch. succisae</i> , <i>Ophiomyia</i> sp., <i>Phytomyza griffithsi</i> , <i>Ph. plantaginis</i> (Agromyzidae).	
<i>Ph. diversa</i> *	SRB/MNE	<i>Calycomyza solidaginis</i> , <i>Chromatomyia scabiosae</i> , <i>Ch. succisae</i> ; <i>Ch. syngenesiae</i> , <i>Liriomyza centaureae</i> , <i>Phytomyza gentianae</i> , <i>Ph. plantaginis</i> (Agromyzidae).	
<i>Ph. diversiformis</i> *	SRB	no data	
<i>Ph. exigua</i>	SRB	<i>Agromyza nana</i> , <i>Agromyza rondensis</i> , <i>Calycomyza solidaginis</i> , <i>Chromatomyia horticola</i> ; <i>Ch. horticola</i> , <i>Ch. scabiosae</i> , <i>Ch. succisae</i> , <i>Ch. syngenesiae</i> , <i>Liriomyza centaureae</i> , <i>L. congesta</i> , <i>L. flaveola</i> , <i>L. sonchi</i> , <i>Liriomyza strigata</i> , <i>Phytomyza alpina</i> , <i>Ph. crassiseta</i> , <i>Ph. gentianae</i> , <i>Ph. glechomae</i> , <i>Ph. griffithsi</i> , <i>Ph. plantaginis</i> , <i>Ph. pullula</i> , <i>Scaptomyza graminum</i> (Agromyzidae).	
<i>Ph. ochrogaster</i> *	SRB	<i>Agromyza phragmitidis</i> , <i>Amauromyza flavifrons</i> , <i>A. labiatarum</i> , <i>A. verbasci</i> , <i>Phytomyza campanulae</i> (Agromyzidae).	
<i>Ph. peterseni</i> *	MNE	no data	
<i>Ph. quasiqvisti</i>	MNE	no data	
<i>Ph. rhodopicola</i> *	SRB	no data	
<i>Ph. rudis</i> *	SRB	<i>Agromyza nigripes</i> (Agromyzidae).	
<i>Ph. staryi</i> *	SRB	<i>Aulagromyza tremulae</i> , <i>Phytomyza aquilegiae</i> , <i>Ph. minuscula</i> (Agromyzidae).	
<i>Rhogadopsis reconditor</i> *	SRB/MNE	<i>Amauromyza labiatarum</i> , <i>A. verbasci</i> , <i>Coleophora nigricella</i> , <i>Napomyza xylostei</i> , <i>Phytomyza affinis</i> ,	
<i>Utetes caudatus</i>	MNE	<i>Pegomya holosteae</i> (Anthomyiidae).	
<i>U. rotundiventris</i>	SRB	<i>Agromyza albitarsis</i> , <i>A. rufipes</i> , <i>Phytomyza diversicornis</i> , <i>Ph. sedicola</i> (Agromyzidae).	
<i>Xynobius macrocerus</i> *	MNE	<i>Agromyza prespana</i> (Agromyzidae); <i>Euleia heraclei</i> , <i>Trypeta immaculata</i> (Tephritidae).	
<i>X. maculipes</i> *	SRB	<i>Agromyza ambigua</i> , <i>A. bicophaga</i> , <i>A. frontella</i> , <i>A. humuli</i> , <i>A. lathyri</i> , <i>A. nana</i> , <i>A. potentillae</i> (Agromyzidae).	

Discussion

In the Fauna Europaea data base (viewed December 2012) for the territory of Serbia and Montenegro 36 species from the family Opiinae are listed as present. This time we report 28 more species new to the fauna of the investigated territory. We note even four new genera for the territory of Serbia: *Atormus*, *Biophthora*,

Diachasma and *Rhogadopsis*. On the faunistic list we devised, there are three *Opius* species (*O. levis* = *filicornis*, *O. pallipes* = *exilis* and *O. pygmaeator* = *meracus*), which exist as synonyms according to the following authors. In FISCHER's publications and keys for the identification of European Opiinae (FISCHER, 1960, 1971, 1972, 1974, 1981a, 1981b, 1983, 1984, 1986, 1989, 1991, 1995, 1996, 1998, 1999, 2003), FISCHER & KOPONEN (1999a, 1999b), FISCHER & BEYARSLAN (2005) and BEYARSLAN & FISCHER (2011) he recognized the mentioned taxa as six valid species.

Based on detailed morphological investigation of the available material from throughout Europe, however, we consider the concerned taxa to be only three species. Regarding their hosts as reported until now, there are no differences which contradict our suggestion to treat them as synonyms. The intention is to perform geometric morphometrics of the forewing and DNA analysis among different species.

Conclusion

In this faunistic investigation we report 39 species of the subfamily Opiinae from the following genera: *Apodesmia* (3), *Atormus* (1), *Biophthora* (1), *Diachasma* (1), *Opius* (17), *Phaedrotoma* (11), *Rhogadopsis* (1), *Utetes* (2) and *Xynobius* (2). Of the total number, 28 are newly registered for the investigated area: 22 for Serbia (*Apodesmia irregularis*, *A. curvata*, *Atormus victus*, *Biophthora bajulus*, *Diachasma cephalotes*, *Opius ambiguus*, *O. gracilis*, *O. inancae*, *O. orbiculator*, *O. pendulus*, *O. pestarus*, *O. tersus*, *Phaedrotoma aethiops*, *Ph. depeculator*, *Ph. diversa*, *Ph. diversiformis*, *Ph. ochrogaster*, *Ph. rhodopicola*, *Ph. rudis*, *Ph. staryi*, *Rhogadopsis reconditor*, *Xynobius maculipes*); nine for Montenegro (*Opius pulicariae*, *O. peterseni*, *O. pygmaeator*, *O. singularis*, *Phaedrotoma depeculator*, *Ph. diversa*, *Ph. peterseni*, *Rhogadopsis reconditor*, *Xynobius macrocerus*); and three species overlap for both countries: *Phaedrotoma depeculator*, *Ph. diversa* and *Rhogadopsis reconditor*.

The most frequent hosts for the reported species are leaf-miners from the family Agromyzidae, especially from the genera *Agromyza*, *Chromatomia*, *Liriomyza* and *Phytomyza*. Species from the families Tephritidae and Anthomyiidae are also common hosts but to a lesser extent.

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ДОПРИНОС ПОЗНАВАЊУ ОПИНА (BRACONIDAE: HYMENOPTERA) СРБИЈЕ И ЦРНЕ ГОРЕ

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МАРИЈАНА ИЛИЋ-МИЛОШЕВИЋ И ЕХСАН РАКШАНИ

Извод

Ово је први извештај истраживања фауне подфамилије Опинае (Hymenoptera: Braconidae) на територији Србије и Црне Горе за период од 1980 до 1997. Анализирани адултне јединке су прикупљане методом кошења, углавном са планинских локалитета, кањона и клисура на различитим типовима станишта. Укупно је идентификовано 39 врста из 9 родова од којих је 28 врста ново за фауну истраживаног подручја. Од девет родова четири је ново за фауну Србије, а један за фауну Црне Горе.

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