



Contribution to Mesochorinae (Hymenoptera: Ichneumonidae) of Bulgaria and North Macedonia

Matthias Riedel¹ & Janko Kolarov²

¹ Zoologische Staatssammlung München, Münchhausenstr. 21, D-81247 München, Germany; E-mail: mamaflo.riedel@t-online.de

² Faculty of Pedagogy, University of Plovdiv, 4000 Plovdiv, Bulgaria; E-mail: j.kolarov@abv.bg

Abstract: In this faunistic and taxonomic survey, we report distributional records for 91 species of the subfamily Mesochorinae from Bulgaria and North Macedonia. Forty-six taxa are newly reported from Bulgaria and five taxa are newly reported from North Macedonia. Two species, *Mesochorus multicoloratus* sp. n. ♂ and *M. striaticus* sp. n. ♂, are herein described as new. The previously unknown male of *M. samarae* Schwenke, 1999 is also described. The following new synonyms are established: *M. mirabilis* Schwenke, 1999 and *M. plebejanus* Schwenke, 1999 are new synonyms of *M. perugianus* Schwenke, 1999, while *M. temporalis* Thomson, 1886 is a new synonym of *M. giberius* (Thunberg, 1822). *M. thomsonii* Dalla Torre, 1901 is re-established as separate from *M. punctipleuris* Thomson, 1886.

Key words: Bulgaria, North Macedonia, new species, Mesochorinae, Ichneumonidae

Introduction

The subfamily Mesochorinae is a moderately large group of Ichneumonidae, containing nearly 900 described taxa worldwide, about 90% of which belong to the cosmopolitan genus *Mesochorus* Gravenhorst. All species of Mesochorinae are probably obligate hyperparasitoids (BROAD et al. 2018), although some authors previously have mentioned a few (questionable) cases of primary parasitism (BROAD et al. 2018).

The European members of the subfamily Mesochorinae were recently revised by SCHWENKE (1999, 2002, 2004) who also described a large number of new taxa. His descriptions, however, are very brief and, therefore, difficult to utilize for an unequivocal determination of taxa (RIEDEL 2019). HORSTMANN (2006), ARAUJO & VIVALLO (2015), KITTEL (2016), VIKBERG & VARDAL (2017), ARAUJO (2018) and ARAUJO et al. (2018) have corrected some taxonomical mistakes. In addition, HORSTMANN (2006) and VIKBERG & VARDAL (2017) have described a small

number of new taxa. Additional information for the species of *Mesochorus* described by SCHWENKE, along with descriptions of some new European species of *Mesochorus*, were recently published by RIEDEL (2018a, 2018b, 2019). The European species of *Cidaphus* Förster were revised by FITTON (1985) and the West Palearctic species of *Astiphromma* Förster by RIEDEL (2015).

Totally, 355 species of Mesochorinae are known from Europe (YU et al. 2016). Previously, the Bulgarian mesochorine fauna has been studied by GREGOR (1933), GERMANOV (1980), KOLAROV (1981, 1986, 1990a, 1990b), ZAPRYANOV (1985) and GEORGIEV et al. (2004), who reported a total of 54 species for the country, but no species of Mesochorinae have been reported from North Macedonia so far.

Over the past few years, the first author had the opportunity to study and determine a large collection of Bulgarian and North Macedonian Mesochorinae sent to him for determination by the second author. Here, we give a first account of these findings.

Materials and Methods

The majority of the specimens we examined were collected by Kolarov during the last five decades in Bulgaria and North Macedonia. If other individuals collected the material, their names are presented in the text. All determinations were performed by Riedel. Species' distribution records were taken from the catalogue of Yu et al. (2016). The main part of the material is deposited in the collection of Hymenoptera of the Zoological States collection Munich (ZSM) and some voucher specimens are in the private collection of the first author.

The morphological terms used in the species descriptions presented herein follow BROAD et al. (2018). For all measurements presented in the text, we used the following ratios: length of the 1st flagellomere (without including the anellus) measured in lateral view; length of the temple and eye measured in dorsal view and length and width of the hind femur measured in lateral view. For the punctuation of all body parts, we used the following definitions: very scattered – distance between punctures >2.00 x their diameter; scattered – distance between punctures 1.05–2.00 x their diameter; rather dense – distance between punctures approximately equal to their diameter; dense – diameter of punctures larger than the distance between them.

We used an Olympus SZX 7 stereomicroscope with dividing eyepiece for all measurements. All images were taken with an Olympus SC 30 CCD-camera equipped with ANALYSIS getIT and Helicon Focus Pro software and processed with Microsoft Office Picture Manager.

Results

List of species

Genus *Astiphromma* Förster, 1869

Astiphromma (Astiphromma) aggressor (Fabricius, 1804)

Material: **Bulgaria:** *Stara planina Mts.*, Rakovskovo, 1 ♀ 31.V.1988; *Strandzha Mt.*, Voden, 1 ♀ 27.IV.1989, Kraynovo, 1 ♂ 26.IV.1989; *Rhodope Mts.*, Madzharovo, 200 m a.s.l., 1 ♀ 15.V.2000. Remark: The ♀ from Madzharovo is very small (body length 4.00 mm) and has a flagellum with 29 flagellomeres, but is otherwise typical of this species.

Distribution: Europe, known from Bulgaria (RIEDEL 2015).

Astiphromma (Astiphromma) albitarse (Brischke, 1880)

Material: **Bulgaria:** Asenovgrad, 200 m a.s.l., 1 ♀ 1.VI.1985; Elchovo, 1 ♀ and 1 ♂ 15.V.1985; *Rhodope Mts.*, Velinograd, 800 m a.s.l., 1 ♀ 16.VI.1981, hut

Zdravets, 1200 m a.s.l., 1 ♂ 31.V.1981, 1 ♂ 4.VI.1982, Galabovo, 600 m a.s.l., 1 ♀ 6.VI.1982; *Pirin Mts.*, Kresna Gorge, 1 ♀ 15.VI.1991.

Distribution: Europe, known from Bulgaria (RIEDEL 2015).

Astiphromma (Astiphromma) anale (Holmgren, 1860)

Material: **Bulgaria:** Harmanli, 1 ♂ 20.IV.1989; *Rhodope Mts.*, Oreshets, 1 ♂ 16.V.1984; *Strandzha Mt.*, Kraynovo, 1 ♂ 26.IV.1989

Distribution: Europe, known from Bulgaria (KOLAROV 1981, RIEDEL 2015).

Astiphromma (Astiphromma) buccatum (Thomson, 1886)

Material: **Bulgaria:** Svilengrad, 1 ♀ 22.IV.1989; *Strandzha Mt.*, Golyama polyana, 1 ♀ 27.IV.1989, Fakia, 1 ♀ 28.IV.1989, Strandzha, 1 ♂ 25.IV.1989; *Rhodope Mts.*, Madzharovo, 200 m a.s.l., Malaise trap, 1 ♀ 19–29.IV.2000.

Distribution: Europe, known from Bulgaria (RIEDEL 2015).

Astiphromma (Astiphromma) diversum Schwenke, 1999

Material: **Bulgaria:** Svilengrad, 1 ♀ 22.IV.1989; *Strandzha Mt.*, Fakia, 1 ♀ 26.IV.1989, Golyama polyana, 1 ♀ 27.IV.1989.

Distribution: Europe, known from Bulgaria (RIEDEL 2015).

Astiphromma (Astiphromma) dorsale (Holmgren, 1860)

Material: **Bulgaria:** *Stara planina Mts.*, Ledenika, 1 ♀ 17.VI.1982.

Distribution: Europe, known from Bulgaria (KOLAROV 1990, RIEDEL 2015).

Astiphromma (Astiphromma) italicum Schwenke, 1999

Material: **Bulgaria:** Dobrich, 1 ♂ 19.V.1987; *Sakar Mt.*, Dervish mogila, 1 ♂ 23.IV.1989; *Strandzha Mt.*, Fakia, 1 ♀ 27.IV.1989, Lopuchna, 1 ♂ 5.V.2000; *Rhodope Mts.*, Madzharovo, 200 m a.s.l., 1 ♂ 24.IV.2000, 1 ♀ 8.V.2000.

Distribution: Europe, known from Bulgaria (RIEDEL 2015).

Astiphromma (Mesochorella) nigriceps (Brischke, 1880)

Material: **Bulgaria:** Elchovo, Balabana, 1 ♀ 1 ♂ 24.IV.1989, Elchovo, 2 ♂♂ 28.V.1988, 1 ♀ 8 ♂♂ 29.V.1988; Plovdiv, 3 ♂♂ 4.V.1987; Dobrich, 1 ♀ 2.VI.1988; *Dobrudja*, General Toshevo, 2 ♀♀ 1 ♂ 2.VI.1988, Bejanovo, 3 ♀♀ 11 ♂♂ 2.VI.1988; *Rhodope Mts.*, Dolno Lukovo, 1 ♂ 20.V.1977, Sveta Marina, 2 ♂♂ 21.IV.1989; *Black Sea Coast*, Durankulak, 2 ♀♀ 1 ♂ 1.VI.1988.

Distribution: Palaearctic region, known from Bulgaria (KOLAROV 1981, RIEDEL 2015).

Astiphromma (Astiphromma) nigricoxatum (Strobl, 1904)

Material: **Bulgaria:** Petrich 1 ♀ 26.IX.1987; Os-

ogovo Mt., hut Tri Buki, 1 ♂ 13.VI.1988; *Vitosha Mt.*, Kopitoto, 1350 m a.s.l., Malaise trap, 1 ♂ 29.V.-5.VI.1998, 1 ♀ and 1 ♂ 12-19.VI.1998, 1 ♀ 26.VI.-3.VII.1998, leg. T. Ljubomirov, Kopitoto, 1 ♀ 30.VI.1982, Bay Krastyo, 2 ♂♂ 17.V.1997; *Stara planina Mts.*, Staro Oryahovo, 1 ♀ 31.V.1988; *Rhodope Mts.*, hut Zdravets, 1200 m a.s.l., 1 ♂ 31.V.1981, Byala tcherkva, 1600 m a.s.l., 1 ♀ 21.VI.1978, Martsiganitsa, 1600 m a.s.l., 1 ♀ 5.VII.1985; *Strandzha Mt.*, Lopuchna, 2 ♀♀ 5.V.2000, Fakia, 1 ♂ 27.IV.1989.

Distribution: Europe, known from Bulgaria (RIEDEL 2015).

Astiphromma (Astiphromma) scutellatum (Gravenhorst, 1829)

Material: **Bulgaria:** *Stara planina Mts.*, Rakovskovo, 3 ♀♀ 31.V.1988, Buynovtsi, 1 ♂ 9.VII.1982; *Strandzha Mt.*, Voden, 1 ♀ and 1 ♂ 27.IV.1989, Fakia, 1 ♀ 27.IV.1989.

Distribution: Europe, known from Bulgaria (KOLAROV 1981, RIEDEL 2015).

Astiphromma (Astiphromma) simplex (Thomson, 1886)

Material: **Bulgaria:** *Rhodope Mts.*, Velingrad, 800 m a.s.l., 1 ♂ 20.VIII.1977.

Distribution: Europe, new record for Bulgaria.

Astiphromma (Astiphromma) splenium (Curtis, 1833)

Material: **Bulgaria:** Golo bardo near Pernik, 1 ♂ 14.VI.1987; Kalofer, Enina, 600 m a.s.l., 1 ♀ 26.VII.2000; Srebarna near Silistra, 1 ♂ 10.VII.1986; *Razgradski heights*, Trubatch, 1 ♀ 24.V.1999, leg. K. Ivanov; Kurdjali, 1 ♀ 17.V.1981; Vidin, 1 ♀ 11.X.1985; Sofia, 1 ♀ 18.VI.1981; *Black Sea Coast*, Tsarevo, Malaise trap, 1 ♀ 26-29.V.1993, leg. S. Petrov; *Rhodope Mts.*, Galabovo, 600 m a.s.l., 2 ♀♀ 6.VI.1982, hut Bezovo, 1200 m a.s.l., 4 ♂♂ 17.VI.1987, Velingrad, 800 m a.s.l., 2 ♀♀ 20.IX.1977, 1 ♀ 10.VIII.1978, peak Sheinovets, 1 ♂ 22.VII.1979, 1 ♂ 22.IV.1983, Sveta Marina, 1 ♀ 21.IV.1989, hut Rodopski partizanin, 600 m a.s.l., 1 ♂ 16.IV.1989, Devin, 1200 m a.s.l., 1 ♂ 21.VII.1986; *Sakar Mt.*, Dervish mogila, 1 ♂ 23.IV.1989; *Stara planina Mts.*, Rakovskovo, 1 ♀ 31.V.1988, Solnik, 1 ♀ 31.V.1988, Shipkovo, 1 ♀ 12.VIII.1986, 1 ♀ 2 ♂♂ 13.VIII.1986, Krastets, 1 ♀ 9.VII.1992, hut Reselets, 2 ♂♂ 13.VII.1991, 2 ♂♂ 14.VII.1991, 2 ♀♀ 23.VII.1992, hut Bulgarka, 2 ♀♀ 10.VII.1992, hut Bukovets, 2 ♀♀ 9.VII.1992, Teteven, 2 ♀♀ and 1 ♂ 1.VIII.1986; *Sredna Gora Mt.*, Liuben, 1 ♀ 7.VII.1982, hut Bratan, 5 ♂♂ 18.VIII.1982; *Pirin Mts.*, Stara Kresna, 1 ♂ 28.IV.1987, 1 ♀ 23.V.1991, Melnik, 1 ♀ 21.VI.1985; *Strandzha Mt.*, Primorsko, 1 ♀ 27.VI.1983, Golyama polyana, 1 ♂ 27.IV.1981, Trakitsi, 1 ♀ 1 ♂ 26.VII.1985, Vitanovo, 2 ♀♀ 2.VIII.1999, 1 ♀ 28.VIII.1999, 1 ♀ 9.IX.1999, 1 ♂ 12.IX.1999, 1 ♀ 29.IX.1999, 1 ♂ 3.V.2000, 2 ♀♀ 25.V.2000, 2 ♀♀ 1 ♂ 30.V.2000, 1 ♀ 8.VI.2000, 2 ♀♀ 1 ♂ 17.VII.2000, 1 ♂ 27.VII.2000, 1 ♀ 28.VI.2000, Strandzha, 1 ♂ 26.IV.1989, Voden, 1 ♂ 27.IV.1989; *Vitosha Mt.*, Kopitoto, 1350 m a.s.l., Malaise trap, 2 ♀♀ 29.V.-5.VI.1998, 1 ♀ 16-26.

VI.1998, leg. T. Ljubomirov, Bosnek, 940 m a.s.l., 1 ♀ 25.VII.1999; *Rila Mts.*, Rila Monastery, 1 ♀ 17.VII.1974, leg. R. Hinz, Dolna banya, 1 ♀ 7.VIII.1983.

var. *sericans* Curtis, 1833

Material: **Bulgaria:** *Strandzha Mt.*, Vitanovo, 1 ♀ 20.VII.2000; *Stara planina Mts.*, hut Reselets, 1 ♀ 16.VII.1990

Distribution: Holarctic region, known from Bulgaria (GERMANOV 1980, KOLAROV 1981, RIEDEL 2015).

Astiphromma (Astiphromma) striatum (Brischke, 1880)

syn. *Mesochorus mandibularis* Thomson, 1886

Material: **Bulgaria:** *Rhodope Mts.*, Trigrad, 1550 m a.s.l., 1 ♂ 13.VI.1985; *Strandzha Mt.*, Vitanovo, 1 ♀ 30.V.2000; *Vitosha Mt.*, Kopitoto 1350 m a.s.l., Malaise trap, 2 ♀♀ 29.V.-5.VI.1998, 2 ♀♀ 5-12.VI.1998, leg. T. Ljubomirov.

Distribution: Palaearctic region, known from Bulgaria (KOLAROV 1981 as *A. mandibulare*, RIEDEL 2015).

Astiphromma (Astiphromma) tenuicorne (Thomson, 1886)

Material: **Bulgaria:** *Rila Mts.*, Rila Monastery, 1 ♀ 17.VII.1974, leg. R. Hinz; *Rhodope Mts.*, Seliste above Velingrad, 1 ♀ 9.VIII.1975, Osenovo, 1 ♀ 24.VII.1986, hut Izgrev, 1820 m a.s.l., 1 ♀ 13.VII.1977, Zabardo, 1000 m a.s.l., 1 ♀ 17.VII.1980; *Pirin Mts.*, Predela, 1 ♀ 22.VI.1988.

Distribution: Europe, known from Bulgaria (KOLAROV 1981, SCHWENKE 1999, RIEDEL 2015).

Astiphromma (Astiphromma) uliginosum Schwenke, 1999

Material: **Bulgaria:** *Strandzha Mt.*, Vitanovo, 1 ♀ 9.IX.1995, 1 ♀ 2.VIII.1999, 1 ♀ 20.VII.2000.

Distribution: Europe, known from Bulgaria (RIEDEL 2015).

Astiphromma (Astiphromma) varipes (Holmgren, 1860)

Material: **Bulgaria:** *Stara planina Mts.*, Krastets, 1 ♂ 9.VII.1992.

Distribution: Europe, known from Bulgaria (RIEDEL 2015).

Genus *Cidaphus* Förster, 1869

Cidaphus alarius (Gravenhorst, 1829)

Material: **Bulgaria:** Svilengrad, 1 ♂ 22.IV.1989; *Strandzha Mt.*, Fakia, 5 ♀♀ 2 ♂♂ 27.IV.1989, Strandzha, 5 ♂♂ 25.IV.1989, 1 ♀ 26.IV.1989, 1 ♂ 27.IV.1989, Rezovo, 1 ♀ 25.V.1993, leg. S. Petrov, Voden, 2 ♀♀ 5 ♂♂ 27.IV.1989, Krushevo, 3 ♂♂ 25.IV.1989, Krayново, 2 ♂♂ 26.IV.1989.

Distribution: Europe, known from Bulgaria (KOLAROV 1981, 1990a).

Cidaphus areolatus (Boie, 1850)

Material: **Bulgaria:** *Strandzha Mt.*, Voden, 1 ♂ 27.IV.1989.

Distribution: Europe, new record for Bulgaria.

Genus *Mesochorus* Gravenhorst, 1829

Taxonomic remark: *Stictopisthus* Thomson, 1885

has been traditionally separated from *Mesochorus* Gravenhorst, 1829 as a distinct taxon. However, in his cladistic analysis WAHL (1993) transferred *Stictopisthus* back to *Mesochorus* as the separation of both genera would render *Mesochorus* non-monophyletic. In the European fauna, at least, the members of *Stictopisthus* represent a species-group that is easily separable from the main bulk of the species of *Mesochorus* by their distinct morphological features: straight (and not dipped) transversal carina below the antennal sockets; antennal sockets widely separated from each other; mesosoma usually more or less compressed; scuto-scutellar groove narrow; nervulus strongly postfurcal.

For practical reasons and aligned with Araujo et al. (2018), we propose *Stictopisthus* as a subgenus of *Mesochorus* until more cladistic and molecular data become available to allow for a better understanding of the phylogeny of the genus *Mesochorus* in the future.

***Mesochorus (Mesochorus) acutus* Schwenke, 1999**

Material: **Bulgaria:** *Rhodope Mts.*, Selishte above Velingrad, 1 ♂ 9.VIII.1978.

Distribution: Central Europe, **new record for Bulgaria.**

***Mesochorus (Mesochorus) alpigenus* Strobl, 1904**

Material: **Bulgaria:** *Stara planina Mts.*, hut Dermenka, 1500 m a.s.l., 1 ♀ 8.VIII.1986; *Rhodope Mts.*, Pamporovo, 1600 m a.s.l., 1 ♀ 22.VI.1977.

Distribution: Europe, **new record for Bulgaria.**

***Mesochorus (Mesochorus) angustatus* Thomson, 1886**

Material: **Bulgaria:** *Stara planina Mts.*, Beklemeto, 1500 m a.s.l., 1 ♀ 11.VIII.1986, peak Kom, 1800 m a.s.l., 1 ♀ 20.VIII.1987, hut Dermenka, 1500 m a.s.l., 1 ♂ 8.VIII.1986; *Rhodope Mts.*, hut Ledenitsata, 1900 m a.s.l., 1 ♂ 3.IX.1984, Pamporovo, 1600 m a.s.l., 1 ♂ 29.VIII.1992, leg. S. Petrov; *Rila Mts.*, Borovets, 1600 m a.s.l., 1 ♀ 7.VIII.1983.

Distribution: Western Palaearctic region, known from Bulgaria (KOLAROV 1981).

***Mesochorus (Mesochorus) arenarius* (Haliday, 1838)**

Material: **Bulgaria:** Mezek near Svilengrad, 1 ♀ 22.IV.1989; Plovdiv, apple garden, 1 ♀ 12.V.2000, 1 ♀ 8.V.2001; Banya, Plovdiv distr., 1 ♀ 4.V.1981; Konuch near Haskovo, 3 ♂♂ 18.IV.1977; Kardzhali, 1 ♀ 18.V.1981; Russe, 6 ♀♀ 4 ♂♂ 7.VII.1984; Byala, Russe distr., 1 ♀ 24.IV.1986; *Black Sea Coast*, Albena, 2 ♀♀ 1 ♂ 18.V.1987; Pavel banya, 1 ♂ 25.IV.1986; Srebarna near Silistra, 1 ♂ 10.VII.1986; Kavarna, 1 ♂ 14.VII.1987; Petrich, 4 ♀♀ 26.IV.1987; Debelets, 1 ♂ 22.IV.1986; Tsarevo, 1 ♀ 1 ♂ VI.1994; *Vitosha Mt.*, Kopitoto 1350 m a.s.l., 1 ♀ 29.V.-5.VI.1998, 1 ♀ 5-16.VI.1998, 1 ♀ 16-26.VI.1998, leg. T. Ljubomirov; *Dobrudja*, General Tochevo, 1 ♀ 2.VI.1988; Varna, 1 ♀ 4.VII.1991; *Strandzha Mt.*, Golyamo Kzushevo, 1 ♀ 21.IV.1986, 2 ♀♀ 4 ♂♂ 25.IV.1989, Bolyarovo, 1 ♂ 24.VI.1980, Golyama polyana, 1 ♀ 27.IV.1989, Fakia, 1 ♀ 25.VI.1980, 9

♀♀ 27.IV.1989, Krajnovo, 5 ♂♂ 26.IV.1989, Voden, 1 ♀ 1 ♂ 27.IV.1989, Kiten, 1 ♀ 23.VI.1983, 1 ♂ 25.VI.1983, Sinemorets, 1 ♂ 2.VII.1983, Grudovo, 4 ♀♀ 13.VI.1989, 1 ♀ 1 ♂ 15.VI.1989; *Rhodope Mts.*, Dolno Lukovo, 3 ♂♂ 20.V.1977, 1 ♀ 14.V.1978, Cepina, 1 ♂ 22.VII.1986, Petelovo, 1 ♀ 7.V.1976, Konuch, 1 ♂ 12.IV.1977, Shiroka polana, 1 ♂ 29.V.1976, 1 ♀ 2.VI.1976, 1 ♂ 11.VI.1976, 3 ♀♀ 4 ♂♂ 18.VI.1976, 1 ♀ 23.VI.1976, 1 ♀ 16.VII.1976, 1 ♀ 1 ♂ 13.IV.1977, 1 ♂ 10.VI.1977, Sveta Marina, 1 ♂ 21.IV.1989, Boyno, 1 ♂ 30.IV.1977, Nikolovo, 1 ♀ 20.IV.1975, 1 ♂ 8.VI.1975, 1 ♂ 25.VI.1975, 4 ♂♂ 28.VI.1975, 1 ♀ 5.VIII.1975, 1 ♂ 10.V.1976, 1 ♀ 10.VI.1976, 8 ♀♀ 7 ♂♂ 16.VI.1976, 1 ♂ 17.VI.1976, 2 ♀♀ 30.VI.1976, 3 ♀♀ 2 ♂♂ 30.IX.1976, 1 ♀ 29.IV.1977, 1 ♂ 1.VI.1977, 1 ♀ 10.VI.1977, leg. J. Kolarov and A. Zaykov, Petelovo, 2 ♀♀ 1 ♂ 15.VI.1976, Ablanitsa, 1 ♀ 1.V.1977, Kardzhali, 1 ♀ 6.V.1978, Tankovo, 1 ♂ 28.IV.1977, 1 ♀ 29.IV.1977, Galabovo, 1 ♀ 16.VII.1976, Mandritsa, 1 ♀ 15.IV.1977, Silen, 1 ♂ 20.VI.1976, 1 ♀ 27.VIII.1976, Konuch near Haskovo, 1 ♂ 18.IV.1977, Beli plast, 1 ♂ 8.V.1977, Belovo, 2 ♀♀ 5.V.1978, Hvoina, 1 ♀ 6.VI.1978, Karamanci, 1 ♀ 2.VI.1975, Kardzhali, 1 ♂ 15.V.1978, Sveta Marina, 1 ♀ 21.IV.1989, Muldava, 1 ♀ 30.V.1986, Varhovrah, 1 ♀ 23.IV.1986, Kormisosh, 1 ♀ 27.IV.1992; *Sakar Mt.*, Madrets, 2 ♂♂ 24.VI.1980, Srem, 1 ♂ 23.IV.1989; *Pirin Mts.*, Kresna, 1 ♂ 27.IV.1988, Melnik, 7 ♂♂ 26.V.1988; *Razgradski heights*, Trubatch, 2 ♀♀ 24.V.1999, Malaise trap, 1 ♀ 30.V.-6.VI.1999, 1 ♀ 6-19.VI.1999, leg. K. Ivanov.

Distribution: Holarctic region, known from Bulgaria (KOLAROV 1981).

***Mesochorus (Mesochorus) arietinus* Schwenke, 1999**

Material: **Bulgaria:** *Rhodope Mts.*, Nikolovo, 1 ♀ 13.VIII.1975, leg. A. Zaykov.

Distribution: Czech Republic, **new record for Bulgaria.**

***Mesochorus (Mesochorus) atriventris* Cresson, 1878**

syn. *Mesochorus sylvarum* auct. non Curtis

Material: **Bulgaria:** Koprivshitsa, 1 ♀ 2 ♂♂ 10.VII.1985; *Rila Mts.*, Iskar Reservoir, 1 ♂ 31.VII.1983; *Sredna gora Mt.*, hut Bratan 2 ♀♀ and 1 ♂ 17.VIII.1982; *Vitosha Mt.*, Bosnek vill. 940 m a.s.l., 1 ♀ 20-28.VIII.1998, leg. T. Ljubomirov; *Stara planina Mts.*, Karandila, 1 ♂ 7.VII.1992, Ledenika, 1 ♀ 18.VIII.1987, Shipka, 1 ♂ 11.VII.1992, hut Bulgarka, 1 ♂ 10.VII.1992; *Rhodope Mts.*, Sveta Maina, 1 ♂ 12.VII.1976, hut Bezovo, 2 ♂♂ 17.VI.1987, Velingrad 2 ♀♀ and 3 ♂♂ 20.VIII.1977, 1 ♀ 26.VI.1981; Bryanovstitsa, 900 m a.s.l., 1 ♂ 14.VI.1984.

Distribution: Almost worldwide, known from Bulgaria (KOLAROV 1981 as *M. sylvarum*).

***Mesochorus (Mesochorus) bicinctus* Schwenke, 1999**

Material: **Bulgaria:** Kalofer, Enina, 600 m a.s.l., 1 ♀ 26.VII.2000.

Distribution: Northern and Central Europe, **new record for Bulgaria.**

***Mesochorus (Stictopisthus) bilineatus* Thomson, 1886**

Material: **Bulgaria:** Russe, 1 ♀ 7.VII.1984; *Stara planina Mts.*, Maglish, 2 ♀♀ 3.VI.1995, 1 ♀ 20.VI.1995, 3 ♀♀ 20.VII.1995, 1 ♀ 23.VII.1995, Maglish, Malaise trap, 1 ♀ 7-31.VII.1995, leg. I. Stojanoff.

Distribution: Holarctic region, **new record for Bulgaria.**

***Mesochorus (Mesochorus) bipartitus* Schwenke, 1999**

Material: **Bulgaria:** Dospat, 1 ♀ 24.VI.1981; *Vitosha Mt.*, Kopitoto, Malaise trap, 1 ♀ 19-26.VI.1998, leg. T. Ljubomirov; *Rila Mts.*, Maljovitza, 1900 m a.s.l., 1 ♀ 22.VII.1982, Borovetz, 1600 m a.s.l., 2 ♀♀ 21.VII.1982; *Rhodope Mts.*, hut Izgrev, 1800 m a.s.l., 1 ♀ 21-26.VII.1977.

Distribution: Italy, **new record for Bulgaria.**

***Mesochorus (Mesochorus) brevicollis* Thomson, 1886**

Material: **Bulgaria:** *Razgradski heights*, Trubatch, Malaise trap, 1 ♀ 30.V.-6.VI.1999, leg. K. Ivanov.

Distribution: Europe, known from Bulgaria (VIKBERG & VARDAL 2017).

***Mesochorus (Mesochorus) bulgaricus* Schwenke, 1999**

Material: **Bulgaria:** *Vitosha Mt.*, Kopitoto, 1350 m a.s.l., Malaise trap, 1 ♀ 26.VI.-3.VII. 1998, leg. T. Ljubomirov, Boyanssko Ezero Lake, 300 m a.s.l., Malaise trap, 1 ♀ 8.X.-1.XI.1999, leg. T. Ljubomirov; *Rhodope Mts.*, Tankovo, 1 ♀ 28.IV.1977, Malko Gradishte, 1 ♀ 28.IV.1977, Dolno Dryanovo, 1 ♀ 1.V.1977.

Distribution: Finland, known from Bulgaria (SCHWENKE 1999).

***Mesochorus (Mesochorus) cimbicis* Ratzeburg, 1844**

syn. *Mesochorus confusus* Holmgren, 1860

Material: **Bulgaria:** Botevgrad, 1 ♂ 17.VIII.1987; *Rhodope Mts.*, Sveti Konstantin, ♂ 22.VII.1986, Dobrostan, 1 ♀ 14.VI.1978, Devin, 1 ♀ 21.VII.1986, Velinograd, 800 m a.s.l., 1 ♂ 10.IX.1978, Gorna Mesta, 1 ♀ 23.VII.1986, Karamantsi, 1 ♀ 22.V.1976, hut Rhodopski partizanin, 1 ♂ 7.VII.1985; *Stara planina Mts.*, hut Reselets, 1 ♂ 17.VII.1990, hut Tchumerna, 1 ♂ 8.VII.1992, hut Dermenka, 1500 m a.s.l., 1 ♂ 8.VIII.1980; *Pirin Mts.*, Predela, 1 ♀ 22.VI.1985.

Distribution: Palaearctic and Oriental regions, known from Bulgaria (GREGOR 1933 and KOLAROV 1981 as *M. confusus*).

***Mesochorus (Mesochorus) cognatus* Schwenke, 1999**

Material: **Bulgaria:** *Vitosha Mt.*, Bosnek, 1 ♀ 16.VII.1999.

Distribution: Germany, **new record for Bulgaria.**

***Mesochorus (Mesochorus) constrictus* Schwenke, 2002**

syn. *Mesochorus extremus* Schwenke, 1999 praecoc.

Material: **Bulgaria:** Popovo, 1 ♀ 4.X.1984.

Distribution: Poland, **new record for Bulgaria.**

***Mesochorus (Mesochorus) crassimanus* Holmgren, 1860**

syn. *Mesochorus globulator* sensu Schwenke non Thunberg

Material: **Bulgaria:** *Vitosha Mt.*, Bosnek, 940 m a.s.l., Malaise trap, 1 ♀ 28.VIII.-4.IX.1998, leg. T. Ljubomirov; *Rhodope Mts.*, Batchkovo, 1 ♀ 6.VI.1978, Hrabrino, 1 ♀ 7.VII.1985.

Distribution: Holarctic region, known from Bulgaria (KOLAROV 1981 as *M. globulator*)

***Mesochorus (Mesochorus) curvulus* Thomson, 1886**

Material: **Bulgaria:** Dospat, 1 ♀ 24.VI.1981; *Rhodope Mts.*, Tschairite, 1 ♀ 14.VI.1985, Karamantsi, 1 ♀ 22.V.1976, Shiroka polyana, 1 ♀ 16.V.1976; *Strandzha Mt.*, Voden, 1 ♂ 27.IV.1989, Fakia, 2 ♀♀ 27.IV.1989, 1 ♂ 28.IV.1989.

Distribution: Holarctic and Neotropical regions, known from Bulgaria (KOLAROV 1981).

***Mesochorus (Mesochorus) declinans* Habermehl, 1922**

Material: **Bulgaria:** *Rhodope Mts.*, Rozhen, 1 ♀ 3.VIII.1978, hut Zdravets, 1200 m a.s.l., 1 ♀ 2.VI.1960, 1 ♀ 20.V.1961, 1 ♀ 31.V.1963.

Distribution: North and Central Europe, **new record for Bulgaria.**

***Mesochorus (Mesochorus) dimidiator* Aubert, 1970**

Material: **Bulgaria:** Svishtov, 1 ♀ 24.VII.1988; *Rhodope Mts.*, Velinograd, 1 ♀ 20.VIII.1977, Tschairite, 1 ♂ 14.VI.1985.

Distribution: North and Central Europe, **new record for Bulgaria.**

***Mesochorus (Mesochorus) discitergus* (Say, 1835)**

Material: Plovdiv, 1 ♂ 10.IV.1983, 1 ♀ 20.IV.1986, 1 ♀ 23.IX.1999; Parvomay, 2 ♂♂ 18.IX.1981, 1 ♀ 23.IX.1981; Popovo, 1 ♂ 4.X.1984, 1 ♂ 5.X.1984; *Vitosha Mt.*, Bosnek, 940 m a.s.l., 1 ♀ 15.VI.1999, Ribni Doll, 1240 m a.s.l., Malaise trap, 1 ♀ 30.V.-28.VI.2000, leg. T. Ljubomirov; *Rila Mts.*, Novo selo, 1 ♀ 9.VIII.1983; *Stara planina Mts.*, Maglish, 1 ♀ 20.VII.1995.

Distribution: Nearly worldwide, known from Bulgaria (GERMANOV 1980, KOLAROV 1981, 1986).

***Mesochorus (Mesochorus) dispar* Brischke, 1880**

Material: **Bulgaria:** Parvomay, 1 ♀ 18.IX.1981; Stara Zagora, 1 ♂ 16.IV.1983; Vidin, 1 ♀ 11.X.1985; *Rhodope Mts.*, Velinograd, 800 m a.s.l., 1 ♀ 15.X.1980; Madzharovo, 200 m a.s.l., Malaise trap, 1 ♀ 19-29.IV.2000, 1 ♀ 9.X.2000, Shiroka polana, 400 m a.s.l., 1 ♀ 25.IV.1977, hut Byanovstitsa, 900 m a.s.l., 1 ♂ 25.VII.1978, leg. A. Zaykov, Tankovo, 400 m a.s.l., 1 ♀ 28.IV.1977, Dolno Lukovo, 200 m a.s.l., 1 ♀ 29.IV.1977; *Stara planina Mts.*, Maglish, 1 ♀ 20.VII.1995, 1 ♀ 18.VIII.1995, Veliko Tarnovo, 1 ♀ 16.X.1984; *Razgradski heights*, Trubatch, Malaise trap, 1 ♀ 19.VI.-3.VII.1999, 1 ♀ 2-17.X.1999, leg. K. Ivanov

Distribution: Europe, known from Bulgaria (KOLAROV 1981).

***Mesochorus (Mesochorus) errabundus* (Hartig, 1838)**

syn. *Mesochorus politus* auct. non Gravenhorst

Material: **Bulgaria:** *Stara planina Mts.*, Rakovskovo, 1 ♀ 31.V.1988; *Rhodope Mts.*, Kotschash, 1 ♀ 24.VIII.1990, Madzharovo, 200 m a.s.l., 1 ♀ 15.VI.2000.

Distribution: Europe, **new record for Bulgaria.**

***Mesochorus (Mesochorus) exquisitus* Schwenke, 1999**

Remark: Flagellum with 38 flagellomeres, hind femur 5.00 × longer than wide. 2nd tergite about as long as wide. Stylet 1.25 × longer than 2nd hind tarsomere. Otherwise typical.

Material: *Vitosha Mt.*, Bosnek vill. 940 m a.s.l., 1 ♂ 10-18.VIII.1998, leg. T. Ljubomirov; *Sredna gora Mt.*, hut Buntovna, 1 ♂ 26.VII.1984.

Distribution: France, **new record for Bulgaria.**

***Mesochorus (Mesochorus) faciator* Horstmann, 2003**

Material: **Bulgaria:** *Black Sea Coast*, Tsarevo, 1 ♂ VI.1994; Gorni Voden near Asenovgrad, 1 ♀ 24.VII.1985; Plovdiv, 1 ♂ 4.V.1987, 1 ♀ 9.X.1999, 1 ♀ 24.VIII.2001; Sadovo, 1 ♂ 19.VI.1985, 1 ♀ 20.VI.1985; *Ludogorsko Plato*, Lipnik, 1 ♂ 29.IX.1999, leg. K. Ivanov; *Rhodope Mts.*, Selishte, 1 ♀ 24.VII.1986, hut Gonda voda, 1 ♂ 13.VII.1985, Kotschash, 1 ♀ 27.VIII.1990, 1 ♀ 24.VIII.1991, Nikolovo, 1 ♀ 22.VIII.1975; *Stara planina Mts.*, Maglish, 1 ♀ 29.VII.1995, hut Reselts, 2 ♂♂ 17.VII.1990; *Razgradski heights*, Trubatch, Malaise trap, 1 ♂ 18.VII.-8.VIII.1999, leg. K. Ivanov.

Distribution: Germany, Italy and Turkey, **new record for Bulgaria.**

***Mesochorus (Mesochorus) flexus* Schwenke, 1999**

Material: **Bulgaria:** *Rhodope Mts.*, Erqupria, 1800 m a.s.l., 1 ♂ 16.VII.1980; *Vitosha Mt.*, Kopitoto, Malaise trap, 1 ♂ 19-26.VI.1998, leg. T. Ljubomirov.

Distribution: North and Central Europe, **new record for Bulgaria.**

***Mesochorus (Mesochorus) fulgurans* Curtis, 1833**

Material: **Bulgaria:** *Stara planina Mts.*, Ledenika, 1 ♂ 18.VIII.1987.

Distribution: Palaearctic region, known from Bulgaria (KOLAROV 1981).

***Mesochorus (Mesochorus) fulvipes* Schwenke, 1999**

Material: **Bulgaria:** Panagurski Koloni, 1 ♀ 1 ♂ 7.VII.1982

Distribution: Germany and Norway, **new record for Bulgaria.**

***Mesochorus (Mesochorus) gemellus* Holmgren, 1860**

Material: **Bulgaria:** Panagiurski Koloni, 1 ♀ 7.VII.1982; Vratsa, 1 ♀ 11.VII.1929, leg. Szilády; *Strandzha Mt.*, Sinemorets, 1 ♀ 2.VII.1983; *Rhodope Mts.*, hut Pashaliitsa, 1600 m a.s.l., 1 ♀ 2.VIII.1978.

Distribution: Holarctic region, known from Bulgaria (KOLAROV 1981)

***Mesochorus (Mesochorus) giberius* (Thunberg, 1822)**

syn. nov. *Mesochorus temporalis* Thomson, 1886

Remark: The lectotype of *Mesochorus giberius* recently was re-described by VIKBERG & VARDAL (2017). Due to the ivory colouration of the entire frontal orbit, this species belongs to the *orbitalis*-group sensu SCHWENKE (1999) and runs to *M. temporalis* Thomson. Both species are synonymised here.

Material: **Bulgaria:** Popovo, 1 ♀ 1 ♂ 4.X.1984; *Vitosha Mt.*, Kopitoto, 1 ♂ 30.VI.1982, Matnitsa, 1 ♂ 11.VII.1998; *Sredna gora Mt.*, hut Bratan, 1 ♂ 17.VIII.1982; *Ograzden Mt.*, Vrabnitsa, 1 ♂ 26.XI.1984; *Stara planina Mts.*, hut Reselts, 1 ♂ 12.VII.1991, Varsnets, 1 ♂ 19.VIII.1987; *Rhodope Mts.*, Muldava, 1 ♂ 14.V.1978, Tankovo, 1 ♀ 1.VII.1978, leg. A. Zaykov, Galabovo, 1 ♀ 6.VI.1982, Zabardo, 1000 m a.s.l., 1 ♂ 21.IX.1977, Hrabrino, 400 m a.s.l., 1 ♂ 9.VI.1985, Madzharovo 200 m a.s.l., 1 ♂ 8.V.2000; **North Macedonia:** *Galichitsa Mt.*, 1500 m a.s.l., 1 ♀ 18.VI.1994

Distribution: Palaearctic region, known from Bulgaria (KOLAROV 1981), **new record for North Macedonia.**

***Mesochorus (Mesochorus) gladiator* Schwenke, 1999**

Material: **Bulgaria:** *Black Sea Coast*, Baltchik, 1 ♀ 25.V.1987.

Distribution: Germany and Norway, **new record for Bulgaria.**

***Mesochorus (Mesochorus) heterodon* Horstmann, 2006**

Material: **Bulgaria:** *Sredna Gova Mt.*, Liuben, 1 ♀ 7.VII.1982; *Rhodope Mts.*, Madzharovo, 200 m a.s.l., 1 ♀ 3.VI.2000; **North Macedonia:** *Galichitsa Mt.*, Oteshevo 1050 m a.s.l., 1 ♀ 18.VI.1994

Distribution: North, Central and East Europe, known from Bulgaria (RIEDEL 2018a), **new record for North Macedonia.**

***Mesochorus (Mesochorus) iburganus* Schwenke, 1999**

Material: **Bulgaria:** *Rhodope Mts.*, Velingrad, 1 ♀ 19.VIII.1977.

Distribution: Germany, **new record for Bulgaria.**

***Mesochorus (Mesochorus) jenensis* Schwenke, 2002**

syn. *Mesochorus hyalinus* Schwenke, 1999 praecoc.

Material: **Bulgaria:** *Razgradski heights*, Trubatch, 1 ♂ 21.VIII.1999, light trapping, leg. K. Ivanov.

Distribution: Germany, **new record for Bulgaria.**

***Mesochorus (Mesochorus) jugicola* (Strobl, 1904)**

Material: **Bulgaria:** Elchovo, Balabana, 1 ♂ 24.IV.1989; *Rhodope Mts.*, Dobrostan 1000 m a.s.l., 1 ♀ 6.VII.1985, leg. J. Papp.

Distribution: Western Palaearctic region, known from Bulgaria (KOLAROV 1981).

***Mesochorus (Mesochorus) laricis* Hartig, 1838**

syn. *Mesochorus georgievi* Schwenke, 2004, synonymized by RIEDEL (2018a)

Material: **Bulgaria:** *Stara planina Mts.*, Beklemeto, 1500 m a.s.l. 1 ♀ 9.VIII.1986; *Pirin Mts.*, Kresna Gorge, 1 ♀ 9.XI.1991.

Distribution: West Palaearctic region, known from Bulgaria (SCHWENKE 2004 as *georgievi*, RIEDEL 2018a).

***Mesochorus (Mesochorus) latus* Schwenke, 1999**

Material: **Bulgaria:** *Strandzha Mt.*, Vitanovo, 1 ♀ 18.VIII.2000; *Stara planina Mts.*, Maglish, 1 ♀ 3.VI.1995.

Distribution: United Kingdom, **new record for Bulgaria.**

***Mesochorus (Mesochorus) marginatus* Thomson, 1886**

syn. *Mesochorus giberius* auct. non Thunberg

Material: **Bulgaria:** Sandanski, 1 ♀ 27.V.1988; Koprivshitsa, 945 m a.s.l., 3 ♀♀ 10.VII.1985; Kyustendil, 1 ♀ 25.VIII.1928, leg. Biro; Varna, 1 ♀ 29.VII.1989; *Vitosha Mt.*, Kopitoto, 1 ♀ 20.VI.1981, Kopitoto 1350 m a.s.l., 1 ♀ 5-12.VI.1998, 2 ♀♀ 19-26.VI.1998, leg. T. Ljubomirov; *Vitosha Mt.*, 1240 m a.s.l., 1 ♀ 26.V.2000; *Stara planina Mts.*, hut Dermenka, 2 ♀♀ 8.VIII.1986, 1 ♀ 1 ♂ 9.VIII.1986, Beklemeto, 1500 m a.s.l., 1 ♀ 11.VIII.1986, hut Reselets, 2 ♀♀ 16.VII.1990, 1 ♀ 17.VII.1990, 2 ♂♂ 14.VII.1991, peak Stoletov, 1 ♀ 7.VI.1982, Teteven, 1 ♀ 1 ♂ 1.VIII.1986, Shipkovo, 1 ♀ 1 ♂ 12.VIII.1986, Koprivshitsa, 1 ♀ 9.IX.1987, hut Vejen, 2 ♀♀ 4.VIII.1986; *Strandzha Mt.*, Sinemorets, 1 ♀ 2.VII.1983, Fakia, 1 ♀ 16.V.1985, Vitanovo, 1 ♀ 7.VIII.2000, Gramatikovo, 1 ♂ 26.VI.1980; *Rhodope Mts.*, Jundola, 1 ♀ 22.VI.1985, Trigrad, 1550 m a.s.l., 1 ♀ 15.VI.1985, Tschairite, 1 ♂ 14.VI.1985, peak Prespa, 2000 m a.s.l., 1 ♀ 28.VII.1985, hut Pashaliitsa, 1600 m a.s.l., 1 ♀ 2.VIII.1978, Zagrazhden, 1 ♂ 5.VI.1991, Jundola, 1 ♀ 22.VI.1985, Gospodinovo, 1 ♀ 24.VII.1986, Petelovo, 1 ♂ 30.IV.1977, Pamporovo, 1600 m a.s.l., 2 ♀♀ 30.VIII.1992, leg. S. Petrov, Shiroka laka, 1 ♂ 23.IX.1977, Fatovo, 4 ♂♂ 30.IV.1977, hut Zdzavec, 1200 m a.s.l., 1 ♂ 27.VII.1977, hut Zdravets, 1200 m a.s.l., 1 ♀ 31.V.1981, Satovtcha, 1 ♀ 1.V.1977, Dobrostan, 1 ♂ 27.VI.1978, Byal izvor, 1 ♂ 14.V.1976, Ptschelarovo, 1 ♀ 22.V.1977, Velingrad, 800 m a.s.l., 1 ♂ 13.VIII.1977, Madzharovo, 200 m a.s.l., 1 ♀ 2.IV.2001, hut Martsiganitsa, 1400 m a.s.l., 15 ♀♀, 2 ♂♂ 5.VII.1985, leg. J. Kolarov & J. Papp; *Stara planina Mts.*, peak Shipka, 1 ♀ 13.VI.1981; *Pirin Mts.*, Predela, 1 ♀ 22.VI.1985; *Sredna gora Mt.*, hut Bratan, 1 ♀ 17.VIII.1982, 1 ♀ 18.VIII.1982; *Rila Mts.*, Dolna banya, 3 ♀♀ 7.VIII.1983; **North Macedonia:** *Galichitsa Mt.*, 1000 m a.s.l., 1 ♀ 18.VI.1994, Kriva Palanka, 1 ♂ 16.VI.1994.

Distribution: Nearly worldwide, known from Bulgaria (GERMANOV 1980 and KOLAROV 1981 as *M. giberius*), **new for North Macedonia.**

***Mesochorus (Stictopisthus) moravicus* (Schwenke, 1999)**

Material: **Bulgaria:** *Razgradski heights*, Trubatch, 1 ♂ 6-19.IX.1999, leg. K. Ivanov.

Distribution: Czech Republic, **new record for Bulgaria.**

***Mesochorus (Mesochorus) multicoloratus* sp. n. (Figs 1-4)**

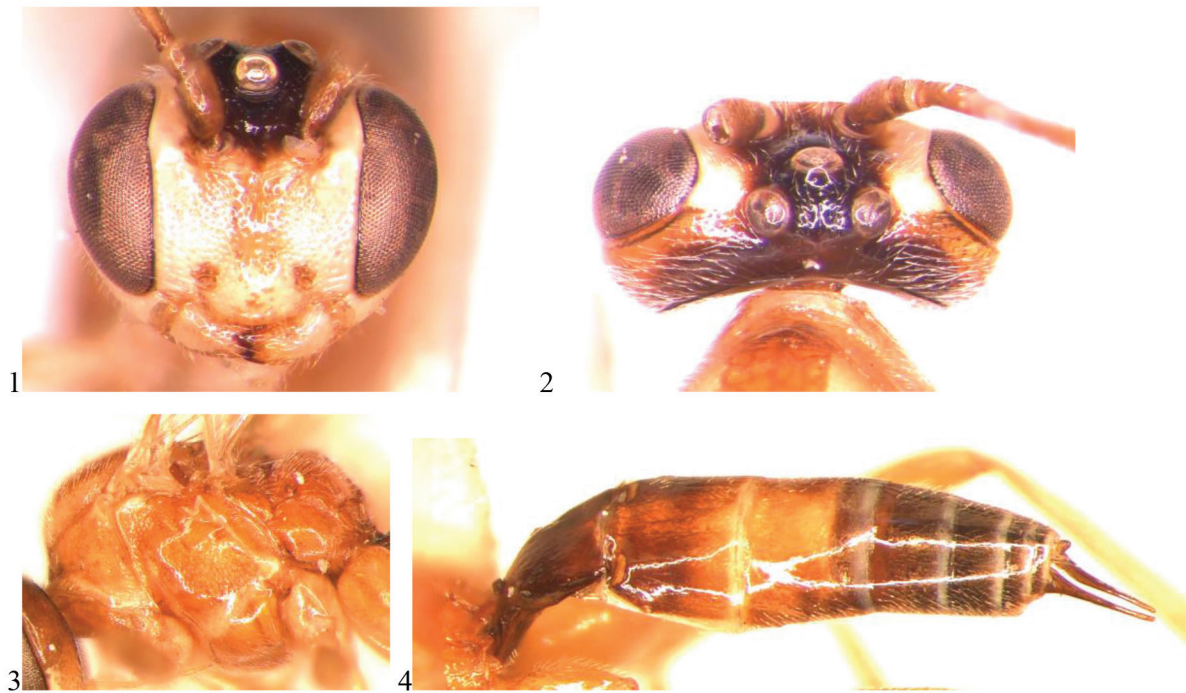
Holotypus: (♂) **Bulgaria:** Srebarna near Silistra, 10.VII.86 leg. Kolarov (ZSM)

Diagnosis of holotype: Body length 6.00 mm. Temple dorsally $0.55 \times$ as long as eye. Ocellus as large as its distance to eye. Lower mandibular tooth slightly shorter than upper one. Ventral part of mesopleuron with dense coarse punctures. Hind claw with five long and widely spaced teeth. First tergite stout, only $2.00 \times$ longer than wide. Stylet with rectangular cross-section, slightly longer ($1.20 \times$) than the 2nd hind tarsomere. Face ivory, with median reddish stripe. Mesosoma red; mesoscutum with H-shaped yellow stripes; scutellum yellow, with antero-median red spot; ventral mesopleuron with yellow longitudinal stripe. Metasoma black; 2nd tergite red in apical half; 3rd tergite reddish, with darkened sides; following tergites mainly blackish, with pale hind margins. Legs yellow-red; hind tibia narrowly infuscate apically. Pterostigma hyaline.

This new taxon belongs to the *orbitalis*-group sensu SCHWENKE (1999) and runs to *M. salicis* Thomson in his key to ♂♂ (SCHWENKE 1999: 63), but differs from it by the shorter clasper, densely punctate mesopleuron, yellow stripes on mesoscutum, yellow scutellum and vespid colouration of apical tergites.

Description of male: Body length 6.00 mm. Flagellum with 32 flagellomeres; 1st flagellomere $6.00 \times$ longer than wide; 2nd flagellomere $4.30 \times$ longer than wide; preapical flagellomere ca. $2.00 \times$ longer than wide. Temple roundly narrowed behind eye, dorsally $0.55 \times$ as long as eye. Distance of lateral ocellus to eye $1.00 \times$ ocellar diameter. Frons with scattered fine punctures. Face densely punctate. Ventral 0.20 of facial orbit and malar space striate. Lower mandibular tooth slightly shorter than upper one. Malar space $0.30 \times$ as long as width of mandibular base. Genal carina reaching hypostomal one far from mandibular base. Mesoscutum with dense punctures, smooth between punctures. Mesopleuron with fine dense punctures dorsally and with dense coarse punctures ventrally. Propodeum completely carinate. Area basalis rectangular, $2.00 \times$ longer than wide. Area superomedial $2.70 \times$ longer than wide and $1.40 \times$ longer than area petiolaris; anterior transverse carina in its anterior 1/5. Area petiolaris $1.20 \times$ longer than wide. Hind femur $4.60 \times$ longer than wide. Hind claw with circa five long and widely spaced teeth. Areolet shortly stalked; 2nd recurrent vein in its middle. Nervulus interstitial. 1st tergite stout, $2.00 \times$ longer than wide; postpetiolus $1.05 \times$ longer than wide, smooth. 2nd tergite $0.90 \times$ as long as wide. Thyridium transverse, comma-shaped. Stylet with rectangular cross-section, $1.20 \times$ as long as 2nd hind tarsomere.

Colour: Face, mandible, gena and inner orbit up to lateral ocellus ivory; face with reddish stripe medially. Frons medially, stemmaticum and occiput blackish. Outer orbit reddish. Mesosoma red; mesoscutum with H-shaped yellow stripes; scutellum yellow, with antero-median red spot; ventral mesopleuron with yellow longitudinal stripe. Metasoma black; 2nd tergite diffusely red in apical half; 3rd tergite reddish, with darkened sides; following tergites blackish; 2nd to 7th tergites with hyaline-ivory apical margins. Legs yellow-red; fore and mid coxae and



Figs 1-4. *Mesochorus muticoloratus* sp. n. ♂: (1) face; (2) head, dorsal view; (3) mesopleuron, lateral view; (4) metasoma, lateral view.

trochanters cream-yellow; hind tibia narrowly brownish apically ($0.50 \times$ tibial width). Pterostigma hyaline.

♀ unknown. Hosts unknown.

Etymology: The name refers to the colouration of the metasoma.

***Mesochorus (Stictopisthus) nemoralis* (Schwenke, 1999)**

Material: **Bulgaria:** *Strandzha Mt.*, Vitanovo, 1 ♀ 30.V.2000; *Rila Mts.*, Samokov, 1 ♂ 22.VII.1982.

Distribution: Germany, **new record for Bulgaria.**

***Mesochorus (Mesochorus) nuncupator* (Panzer, 1800)**

Material: **Bulgaria:** *Pirin Mts.*, Predela, 1 ♀ 22.VI.1985.

Distribution: Palearctic region, **new record for Bulgaria.**

***Mesochorus (Mesochorus) olerum* Curtis, 1833**

syn. *Mesochorus pectoralis* Ratzeburg, 1844

Material: **Bulgaria:** Panagiurski Koloni, 1 ♀ 7.VII.1982; Popovo, 1 ♀ 4.X.1984; *Vitosha Mt.*, Bosnek vill. 940 m a.s.l., 1 ♀ 25.VII.1999, leg. T. Ljubomirov; *Rhodope Mts.*, Erqupria, 1 ♀ 15.VII.1978, 1 ♀ 2.VIII.1978, hut Pashaliitsa, 1600 m a.s.l., 2 ♀♀ 2.VII.1978, Dospat, 1 ♀ 24.VI.1981, Stoykite, 1100 m a.s.l., 1 ♀ 4.VIII.1978, Barakli, 2 ♀♀ 21.VII.1986, 1 ♀ 25.VII.1986, hut Zdravets, 1 ♀ 30.VII.1978, hut Martsiganitsa, 1400 m a.s.l., 1 ♀ 5.VII.1985; *Rila Mts.*, Raduil, 1 ♀ 24.VII.1982; *Stara planina Mts.*, hut Reselets, 1 ♀ 17.VII.1990, 1 ♀ 14.VII.1991; *Strandzha Mt.*, Vitanovo, 1 ♀ 17.VII.2000, Sinemorets, 1 ♀ 2.VII.1982.

Distribution: Palearctic region, known from Bulgaria (GREGOR 1933 and KOLAROV 1981 as *M. pectoralis*).

***Mesochorus (Mesochorus) oppacheus* Schwenke, 1999**

Material: **Bulgaria:** *Stara planina Mts.*, hut Reselets, 1 ♀ 9.XI.1991.

Distribution: Germany, **new record for Bulgaria.**

***Mesochorus (Mesochorus) orbitalis* Holmgren, 1860**

Material: **Bulgaria:** *Strandzha Mt.*, Vitanovo, 1 ♀ 2 ♂♂ 17.VII.2000, 1 ♂ 27.VII.2000, Trakiitsi, 1 ♀ 26.VII.1985.

Distribution: West Palearctic region, known from Bulgaria (GERMANOV 1980, KOLAROV 1981).

***Mesochorus (Mesochorus) pallipes* Brischke, 1880**

Material: **Bulgaria:** *Rhodope Mts.*, Velingrad, 1 ♀ 20.VIII.1977.

Distribution: West Palearctic region, known from Bulgaria (KOLAROV 1981).

***Mesochorus (Mesochorus) pascuus* Schwenke, 1999**

Remark: The Bulgarian specimen differs from the holotype by its reddish H-shaped mark on the mesoscutum, the stouter area superomedia ($1.50 \times$ longer than wide) and the slenderer hind femur ($4.70 \times$ longer than wide), but is otherwise typical.

Material: **Bulgaria:** *Rhodope Mts.*, Stephanovo, 1 ♀ 20.V.1987.

Distribution: Known from Austria, **new record for Bulgaria.**

***Mesochorus (Mesochorus) pelvis* Schwenke, 2002**

Material: **Bulgaria:** *Pirin Mts.*, Stara Kresna, 1 ♀ 23.V.1991; *Rhodope Mts.*, Velingrad, 1 ♀ 26.VI.1981; Ka-

varna, 1 ♀ 25.V.1987, hut Bezovo, 1200 m a.s.l., 2 ♀♀ 16.VI.1977, 1 ♂ 16.VI.1977, 1 ♂ 4 ♀♀ 17.VI.1987, 1 ♀ 18.VI.1987, 1 ♀ 16.VI.1989, Mineralni bani, 1 ♂ 25.V.1982, Dobrostan, 1000 m a.s.l., 1 ♂ 24.VI.1978; *Strandzha Mt.*, Voden, 1 ♀ 27.VII.1989, Vitanovo, 1 ♀ 18.VIII.1999; *Stara planina Mts.*, Ledenika, 1 ♀ 17.VI.1982, peak Shipka, 1 ♀ 13.VI.1981; *Belasitsa Mt.*, hut Belasitsa, 1 ♀ 19.V.1981, 1 ♀ 12.VII.1991.

Distribution: Europe, known from Bulgaria (RIEDEL 2018a).

***Mesochorus (Mesochorus) pectinipes* Bridgman, 1883**

Material: **Bulgaria:** Petrich, 1 ♀ 25.IV.1987; Stara Zagora, 1 ♀ 16.IV.1983; Elchovo, Balabana, 1 ♀ 24.IV.1989; *Strandzha Mt.*, Golyamo Krushevo, 1 ♀ 25.IV.1989; *Rhodope Mts.*, peak Sheinovets, 1 ♀ 22.IV.1989, Tankovo, 1 ♀ 30.V.1976; *Sakar Mt.*, Srem, 1 ♀ 23.IV.1989.

Distribution: Central Europe and Romania, **new record for Bulgaria.**

***Mesochorus (Mesochorus) perticatus* Schwenke, 1999**

Material: **Bulgaria:** *Rhodope Mts.*, Madzharovo, 200 m a.s.l., 1 ♀ 24.V.2000.

Distribution: Germany and United Kingdom, **new record for Bulgaria.**

***Mesochorus (Mesochorus) perugianus* Schwenke, 1999**

syn. nov. *Mesochorus mirabilis* Schwenke, 1999

syn. nov. *Mesochorus plebejanus* Schwenke, 1999

Remark: Comparing the holotypes of *M. perugianus* and *M. plebejanus* (see RIEDEL 2019 for description) with the available paratypes of *M. mirabilis* deposited in the ZSM and with other collected material of the three taxa, we found only slight and variable differences in the length of the ovipositor sheaths and the colour patterns of the hind coxa and hind tibia. In our opinion, *M. mirabilis* and *M. plebejanus* are new synonyms of *M. perugianus*.

The characteristic features of this species belonging to the *angustatus*-group sensu SCHWENKE (1999) are outlined below. Flagellum with 34-35 flagellomeres, preapical flagellomere stout (1.30-1.60 × longer than wide). Mesopleuron black, reddish antero-dorsally. Hind tarsus brown in distal half. Pterostigma wide, 2.40 × longer than wide, brown, almost hyaline proximally and distally; colouration of the hind coxa variable from reddish to reddish-brown and ovipositor sheath 0.90-1.00 × as long as hind metatarsus. *Mesochorus perugianus* is closely related to *M. angustatus*, but differs by its stout preapical flagellomeres and the infusate apical fifth of hind tibia.

Material: **Bulgaria:** Koprivshtitsa, 1 ♀ 10.VII.1985; *Rhodope Mts.*, Padalo, 1 ♀ 20.VI.1970, Gornoslav, 1 ♀ 4.VII.1985.

Distribution: France, Germany and Italy, **new record for Bulgaria.**

***Mesochorus (Mesochorus) pictilis* Holmgren, 1860**

Material: **Bulgaria:** Popovo, 1 ♀ 6.X.1984; *Strandzha Mt.*, Vitanovo, 1 ♀ 12.IX.1999, 1 ♀ 1 ♂ 22.VII.2000, 1 ♀ 27.VII.2000; *Stara planina Mts.*, Teteven, 1 ♀ 1.VIII.1986; *Razgradski heights*, Trubatch, Malaise trap, 1 ♀ 6-19.IX.1999, leg. K. Ivanov.

Distribution: Holarctic region, known from Bulgaria (KOLAROV 1981).

***Mesochorus (Mesochorus) politus* Gravenhorst, 1829**

Material: **Bulgaria:** *Vitosha Mt.*, Kopitoto, 2 ♂♂ 30.VI.1982; *Strandzha Mt.*, Krajnovo, 1 ♀ 26.IV.1989

Strandzha Mt., Fakia, 1 ♀ 16.V.1985, Vitanovo, 1 ♂ 17.VII.2000; *Stara planina Mts.*, hut Reselets, 2 ♀♀ 16.VII.1990, 1 ♀ 17.VII.1990, Teteven, 1 ♂ 1.VIII.1986; *Rhodope Mts.*, Hrabrino, 400 m a.s.l., 1 ♂ 1.VI.1985, Popsko, 1 ♀ 21.V.1977, hut Bezovo, 1200 m a.s.l., 1 ♀ 16.VI.1987, 1 ♀ 17.VI.1987, Galabovo, 600 m a.s.l., 1 ♀ 6.VI.1982, Mineralni bani, 2 ♀♀ 25.V.1982, Madzharovo, 200 m a.s.l., 1 ♀ 19-29.IV.2000; *Rila Mts.*, Raduil, 2 ♂♂ 24.VII.1982; *Pirin Mts.*, Kresna Gorge 1 ♀ 15.VI.1991.

Distribution: Palaearctic and Oriental regions, **new record for Bulgaria.**

***Mesochorus (Mesochorus) provocator* Aubert, 1965**

Material: **Bulgaria:** *Strandzha Mt.*, Vitanovo, 1 ♀ 27.VII.2000; *Stara planina Mts.*, Krastets, 1 ♀ 9.VII.1992.

Distribution: France, **new record for Bulgaria.**

***Mesochorus (Mesochorus) punctipleuris* Thomson, 1886**

Material: **Bulgaria:** Smolyan, 1100 m a.s.l., 1 ♀ 22.IX.1977; *Vitosha Mt.*, Kopitoto, 1350 m a.s.l., Malaise trap, 1 ♂ 29.V.-5.VI.1998, 1 ♀ 19-26.VI.1998, leg. T. Ljubomirov; *Sredna gora Mt.*, hut Buntovna, 1 ♀ 26.VII.1984; *Stara planina Mts.*, hut Vejen, 1680 m a.s.l., 1 ♂ 5.VIII.1986, Gabrovo, 4 ♂♂ 22.IV.1986, Byalata voda, 1 ♀ 19.VIII.1987, Debelets, 2 ♀♀ 1 ♂ 22.IV.1986; *Rhodope Mts.*, peak Persenk, 2091 m a.s.l., 1 ♂ 2.VIII.1978, Hrabrino, 400 m a.s.l., 1 ♂ 1.VI.1985, Ledenitsata, 2 ♀♀ 3.V.1994.

Distribution: Holarctic region, known from Bulgaria (KOLAROV 1981).

***Mesochorus (Mesochorus) rufoniger* Brischke, 1880**

Material: **Bulgaria:** *Rhodope Mts.*, Tscherna Mesta, 1 ♂ 25.V.1988; Konush, 1 ♂ 12.IV.1977.

Distribution: Europe, **new record for Bulgaria.**

***Mesochorus (Stictopisthus) ruscicus* (Schwenke, 1999)**

Material: **Bulgaria:** *Rhodope Mts.*, Shiroka polyana, 400 m a.s.l., 1 ♂ 25.IV.1977.

Distribution: Known from Republic of Moldova, **new record for Bulgaria.**

***Mesochorus (Mesochorus) salicis* Thomson, 1886**

Material: **Bulgaria:** *Rhodope Mts.*, Martsiganitsa, 1400 m a.s.l., 2 ♂♂ 5.VII.1985; *Vitosha Mt.*, Kopitoto, 1 ♂ 30.VI.1982; *Stara planina Mts.*, Beklemeto, 1500 m a.s.l., 1 ♂ 20.VII.1980.

Distribution: West Palaearctic region, **new record for Bulgaria.**

Mesochorus (Mesochorus) samarae Schwenke, 1999, **undescribed male (Figs 8-10)**

Diagnosis: This ♂ belongs to the *orbitalis*-group sensu SCHWENKE (1999), e.g. frontal orbit cream-yellow and is characterized by the following features: mesopleuron with scattered punctures, stylet slightly clubbed apically, hind coxa reddish, petiolus brown and pterostigma hyaline. In the key to the ♂♂ of the *orbitalis*-group (SCHWENKE 1999: 63) it runs to *M. zygaenae* Schwenke but differs by the rectangular area basalis (triangular in *M. zygaenae*), wider area superomedia (2.20 × longer than wide; 2.90 × longer in *M. zygaenae*) and rectangular yellow apical band of 2nd tergite (triangular in *M. zygaenae*).

Description of ♂: Body length 6.00 mm. Flagellum with 35-38 flagellomere; 1st flagellomere 5.80 × longer than wide. Temple moderately narrowed behind eye, dorsally 0.60 × as long as eye. Distance of lateral ocellus to eye 1.20 × ocellar diameter. Face width 1.00 × eye length and 1.20 × combined length of face+clypeus, with parallel sides and dense, partly superficial punctures. Facial orbit not striate. Clypeus with scattered punctures. Mandible with two equal teeth. Malar space 0.20 × as long as width of mandibular base. Mesopleuron with scattered superficial punctures. Area basalis about rectangular, slightly longer than wide. Area superomedia 2.20 × longer than wide and 1.20 × longer than area petiolaris; anterior transversal carina in anterior 4/10. Area petiolaris c. 1.20 × longer than wide. Areolet shortly sessile or pointed; 2nd recurrent vein in its middle. Nervulus interstitial. Pterostigma ca 3.20 × longer than wide; radial vein in its distal 0.7. 1st tergite 2.40-3.00 × longer than wide, postpetiolus smooth. 2nd tergite 1.05-1.10 × longer than wide. Thyridium large, transverse-oval. Stylet c. 1.10 × longer than 2nd hind tarsomere, slightly clubbed apically.

Colour: Head yellowish-red. Palps, mandible, clypeus, face, gena and wide frontal orbit up to lateral ocellus cream-yellow, face sometimes with some reddish spots. Stemmaticum and occiput ± brownish. Mesosoma red; mesoscutum reddish-brown, with paramedian and lateral cream-yellow stripes. Scutellum yellowish, red antero-medially. Side and hind edge of pronotum, tegula and subtegular ridge cream-yellow. Propodeum brownish, ± yellowish apically. Metasoma reddish-yellow; 1st tergite brown, yellowish in apical 0.10-0.20; 2nd tergite brown, yellow in apical 0.20; 3rd tergite yellowish, with brown lateral spots; following tergites yellowish. Legs reddish-yellow; hind tibia yellow, narrowly black basally and pale brownish in apical 0.15. Hind tarsus ± brownish. Pterostigma hyaline, margins ochreous.

Material: **Bulgaria:** *Rhodope Mts.*, Galvabovo, 1 ♀ 25.IV.1976, Sviratchi, 1 ♀ 14.VII.1976, Podkrepa, 1 ♀ 10.X.1976, Shiroka polyana, 400 m a.s.l., 1 ♂ 22.V.1976, Karamantsi, 1 ♂ 8.V.1976.

Distribution: Russia (Samarskaya oblast), **new record for Bulgaria.**

Mesochorus (Mesochorus) scopulus Schwenke, 1999

Remark: Flagellum very slender, with 39 flagellomeres, otherwise typical.

Material: **Bulgaria:** *Stara planina Mts.*, Elena, 1 ♂ 9.VII.1992.

Distribution: Switzerland, **new record for Bulgaria.**

Mesochorus (Mesochorus) semirufus Holmgren, 1860

Material: **Bulgaria:** Svishtov, 1 ♂ 22.IV.1986; Elchovo, 1 ♀ 24.VI.1980; Plovdiv, 1 ♂ 8.IX.1999; Kalofer, Enina, 600 m a.s.l., 1 ♀ 26.VII.2000; *Vitosha Mt.*, Kopitoto, 1350 m a.s.l., 1 ♀ 29.V.-5.VI.1998, leg. T. Ljubomirov, Bosnek, 940 m a.s.l., 1 ♀ 4-10.VIII.1998, leg. T. Ljubomirov, Dragalevtsi, 1 ♂ 29.IV.1992; *Strandzha Mt.*, Vitanovo, 1 ♀ 12.IX.1999, 1 ♀ 17.VII.2000, 2 ♀♀ 27.VII.2000, Strandzha, 1 ♂ 26.IV.1989, Bol-yarovo, 1 ♂ 16.V.1985, Fakia, 1 ♂ 27.IV.1989; *Rhodope Mts.*, hut Bezovo, 1200 m a.s.l., 1 ♀ 17.VI.1987, Dospat, 1 ♀ 21.VI.1981, Ptschelarovo, 1 ♂ 4.VII.1975, Silen, 1 ♀ 27.VIII.1976, Velingrad, 1 ♀ 20.VIII.1977, 2 ♀♀ 10.IX.1978; *Stara planina Mts.*, Aglikina polyana, 1 ♂ 8.VII.1992, Shipkovo, 1 ♂ 12.VIII.1986, 1 ♂ 13.VIII.1986.

Distribution: Palaearctic and Oriental regions, known from Bulgaria (GREGOR 1933, KOLAROV 1981)

Mesochorus (Mesochorus) stigmator (Thunberg, 1822)

Material: **Bulgaria:** *Strandzha Mt.*, Vitanovo, 1 ♀ 12.IX.1999.

Distribution: West Palaearctic region, **new record for Bulgaria.**

Mesochorus (Mesochorus) striaticus sp. n. (Figs 5-7)

Holotype: (♂) **Bulgaria:** Osogovo, hut Tri Buki, 13.VI.1987, leg. J. Kolarov (ZSM).

Etymology: The name refers to the characteristic striae on the mesopleuron.

Diagnosis of the holotype: Body length 5.50 mm. Lower mandibular tooth slightly longer than the upper one. Mesopleuron with radial striae dorsally and fine rather dense punctures ventrally, finely striate caudally. Hind claw with three short basal teeth. First tergite slender, 3.40 × longer than wide. Stylet with round cross-section, as long as 2nd hind tarsomere. First and 2nd tergites black; 2nd tergite with ivory band in apical 0.15. Third tergite yellow, with brown sides. Following tergites blackish, with narrow pale apical margins. Legs yellowish. Hind coxa dorsally and hind femur in apical half ± brownish. Hind tibia cream-yellow, blackish in basal 0.10 and apical 0.30. Pterostigma ochreous. This species belongs to the *petiolaris*-group sensu SCHWENKE (1999). In the key to ♂♂ (SCHWENKE 1999: 115-118) it runs to *Mesochorus skaneus* Schwenke but differs from it by the slightly elongate lower mandibular tooth, partly striated mesopleuron, black petiolus and mainly blackish apical tergites.

Description: Flagellum with 40 flagellomeres; 1st flagellomere 6.70 × longer than wide; 2nd flagellomere



Figs 5-7. *Mesochorus striaticus* sp. n. ♂: (5) face; (6) mesopleuron, lateral view; (7) metasoma, dorsal view.

4.30 × longer than wide; preapical flagellomere c.2.00 × longer than wide. Temple moderately and roundly narrowed behind eye, dorsally 0.80 × as long as eye. Distance between lateral ocelli 1.10 × their diameter, distance of lateral ocellus to eye 1.30 × ocellar diameter. Face densely punctate, partly rugose-punctate, with fine median ridge, width 0.90 × eye length and 1.05 × combined length of face and clypeus, with parallel sides. Clypeus with scattered punctures. Ventral 0.40 of facial orbit and malar space striate. Lower mandibular tooth slightly longer than upper one. Malar space 0.40 × as long as width of mandibular base. Genal carina reaching hypostomal one far from mandibular base. Mesoscutum with superficial punctures anteriorly and laterally, with denser rather coarse punctures medio-posteriorly which are arranged in some longitudinal rows. Mesopleuron with fine radial striae dorsally and with fine rather dense punctures ventrally, with fine striae posteriorly. Area basalis rectangular, 2.00 × longer than wide, confluent with area supermedia. Area supermedia 1.70 × longer than wide and 1.30 × longer than area petiolaris; anterior transversal carina in its anterior 0.30 ×. Area petiolaris 1.10 × longer than wide. Hind femur 5.50 × longer than wide. Hind claw with c.3 short basal teeth. Areolet shortly sessile; 2nd recurrent vein in its middle. Nervulus interstitial.

First tergite slender, 3.40 × longer than wide; post-petiolus 1.70 × longer than wide, with some fine longitudinal striae. Second tergite 1.30 × as long as wide. Thyridium transverse, comma-shaped. Stilet with round

cross-section, 1.00 × as long as 2nd hind tarsomere, slightly clubbed apically.

Colour: Palps, mandible except teeth, clypeus, malar space and facial orbits cream-yellow; face yellowish, with weak brownish tint ventrally. Frontal, vertical and outer orbits reddish-yellow. Stemmaticum and occiput black. Flagellum brownish. Mesosoma black; hind edge of pronotum, tegula and wing base cream-yellow. First and 2nd tergites black; 2nd tergite with ivory band in apical 0.15. Third tergite yellow, sides brown. Following tergites blackish, with narrow pale apical margins. Legs yellowish. Hind coxa dorsally and hind femur in apical half ± brownish. Hind tibia cream-yellow, blackish in basal 0.10 and apical 0.30. Hind tarsus except yellow base of metatarsus ochreous. Pterostigma ochreous.

♀ unknown. Hosts unknown.

Mesochorus (Mesochorus) sufflatus Schwenke, 1999

Material: **Bulgaria:** *Rhodope Mts.*, Tankovo, 1 ♀ 24.IX.1976; **North Macedonia:** *Galichitsa Mt.*, 1 ♀ 19.VI.1994.

Distribution: Known from Austria, **new record for Bulgaria and North Macedonia.**

Mesochorus (Mesochorus) tachypus Holmgren, 1860

syn. *Mesochorus tetricus* auct. non Holmgren

Material: **Bulgaria:** *Rhodope Mts.*, hut Ledenitsata, 1 ♀ 3.IX.1984, Beglika, 2 ♀♀ 9.VIII.1978, hut Pashalitsa, 1600 m a.s.l., 1 ♀ 2.VIII.1978.

Distribution: Europe, known from Bulgaria (KOLAROV 1981 as *M. tetricus*).

Mesochorus (Mesochorus) tenthredinidis Schwenke, 1999

Material: **Bulgaria:** *Rila Mts.*, Dolna banya, 620 m a.s.l., 1 ♂ 7.VIII.1983; *Stara planina Mts.*, Veliko Tarnovo, 1 ♀ 16.X.1984.

Distribution: Europe, known from Bulgaria (HORSTMANN 2006).

Mesochorus (Mesochorus) terebratus Schwenke, 1999

Material: **Bulgaria:** *Rhodope Mts.*, Velingrad, 1 ♀ 26.VI.1981; *Strandzha Mt.*, Krajnovo, 1 ♀ 26.IV.1989

Distribution: Austria, Germany and Turkey, **new record for Bulgaria.**

Mesochorus (Mesochorus) testaceus Gravenhorst, 1829

Material: **Bulgaria:** Elchovo, Balabana, 1 ♀ 24.IV.1989; *Vitosha Mt.*, Kopitoto, 1350 m a.s.l., Malaise trap, 1 ♀ 3-10.VII.1998, Dragalevtsi, 1 ♂ 13.VI.1985; *Rhodope Mts.*, Trigrad, 1550 m a.s.l., 1 ♂ 15.VI.1985, Cygovo tchark, 1200 m a.s.l., 1 ♀ 19.VII.1986, hut Bryanovs-titsa, 900 m a.s.l., 1 ♀ 25.VI.1978, hut Pashaliitsa, 1600 m a.s.l., 1 ♀ 2.VII.1978, Martsiganitsa, 1400 m a.s.l., 1 ♀ 1 ♂ 5.VII.1985; *Strandzha Mt.*, Rezovo, 1 ♀ 25.V.1993; *Stara planina Mts.*, peak Shipka, 1 ♂ 18.VI.1981; *Rila Mts.*, Borovets, 1600 m a.s.l., 1 ♂ 21.VII.1982.

Distribution: Palaearctic region, known from Bulgaria (KOLAROV 1981).

Mesochorus (Mesochorus) thomsonii Dalla Torre, 1901

syn. *Mesochorus nigriceps* Thomson, 1886, preoccupied by Brischke, 1880.

Remark: Recently, VIKBERG studied the types of *Mesochorus punctipleuris* Thomson and *M. nigriceps* Thomson praecoc. (nom. nov. *Mesochorus thomsonii* Dalla Torre) and sent important information about their differences and the separation of both taxa to the first author.

This taxon differs from *M. punctipleuris* mainly by the longer and sharper teeth of the hind claw, ± darkened mid coxa, blackish base of hind tibia and slightly shorter ovipositor sheath (1.00 × as long as hind metatarsus). A more detailed description and comparison will be given in a planned future revision of the *nigripes*-group of *Mesochorus* by the first author and VIKBERG.

Material: **Bulgaria:** *Rhodope Mts.*, hut Ledenitsata, 1 ♀ 3.VIII.1984, 1 ♀ 3.IX.1984

Distribution: Europe, **new record for Bulgaria.**

Mesochorus (Mesochorus) tipularis Gravenhorst, 1829

Remark: Face and hind coxa blackish.

Material: **Bulgaria:** *Stara planina Mts.*, hut Dermeuka, 1 ♂ 8.VIII.1986; *Rhodope Mts.*, hut Izgrev, 1820 m a.s.l., 1 ♂ 13.VII.1977, Tschairite, 1 ♂ 14.VI.1985.

Distribution: West Palaearctic and Nearctic regions, **new record for Bulgaria.**

Mesochorus (Mesochorus) townesi Schwenke, 1999

Material: **Bulgaria:** *Razgradski heights*, Trubatch, Malaise trap, 1 ♀ 22.VIII.-6.IX.1999, leg. K. Ivanov.

Distribution: Russia (Moskow oblast), **new record for Bulgaria.**

Mesochorus (Mesochorus) trentinus Schwenke, 1999

Material: **Bulgaria:** *Stara planina Mts.*, Shipka, 570 m a.s.l., 1 ♀ 25.IV.1986.

Distribution: Known from Italy, **new record for Bulgaria.**

Mesochorus (Mesochorus) versuranus Schwenke, 1999

Material: **Bulgaria:** Asenovgrad, 1 ♀ 1.VI.1985; *Rila Mts.*, Borovetz, 1600 m a.s.l., 1 ♀ 21.VII.1982.

Distribution: Italy, **new record for Bulgaria.**

Mesochorus (Mesochorus) vittator Zetterstedt, 1838

Material: **Bulgaria:** Popovo, 2 ♀♀ 4.X.1984; *Strandzha Mt.*, Vitanovo, 1 ♀ 30.V.2000, 1 ♀ 17.VII.1985; *Stara planina Mts.*, Shipka, 570 m a.s.l., 1 ♀ 25.IV.1986, hut Buntovna, 1 ♀ 26.VII.1984, Botevgrad, 1 ♀ 17.VIII.1987, Buynovtsi, 1 ♀ 9.VII.1992, hut Reselets, 2 ♀♀ 1 ♂ 16.VII.1990, Gabrovo, 1 ♀ 11.VII.1992, Veliko Tarnovo, 1 ♀ 16.X.1987, hut Zdravets, 1 ♀ 19.VIII.1988; *Sredna gora Mt.*, Barikadite, 1 ♀ 26.VII.1984; *Rhodope Mts.*, Kotschash, 1 ♀ 24.VIII.1990, Hrabrino, 400 m a.s.l., 1 ♀ 7.VII.1985, Osenovo, 1 ♀ 24.VII.1986, Velingrad, 800 m a.s.l., 1 ♀ 10.IX.1978; *Vitosha Mt.*, Bossnek, 940 m a.s.l., Malaise trap, 1 ♀ 28.VIII.-4.IX.1998, leg. T. Ljubomirov.

Distribution: Holarctic region, known from Bulgaria (KOLAROV 1981, ZAPRYANOV 1985)

Mesochorus (Mesochorus) vitticollis Holmgren, 1860

Material: **Bulgaria:** Gabrovo, 1 ♀ 14.VI.1981; Smolyan, 1100 m a.s.l., 2 ♀♀ 22.IX.1978; along Iskar Reservoir, 1 ♀ 31.VII.1983; Popovo, 1 ♀ 4.X.1984; Zagrazhden, 1 ♀ 5.VI.1991; Simitli, 1 ♀ 27.V.1988; *Vitosha Mt.*, Vetrovala, 1 ♂ 4.VII.1992, Kniajevo, 1 ♂ 1.VI.1982, 1 ♀ 2 ♂♂ 11.VI.1982, Kopitoto, 1350 m a.s.l., 1 ♀ 30.VI.1982, Bay Krastiu, 1 ♂ 3.VII.1992; *Pirin Mts.*, Kresna Gorge, 1 ♂ 16.V.1991; hut Sandanski, 1230 m a.s.l., 1 ♂ 27.VI.1988; *Stara planina Mts.*, hut Vejen, 1680 m a.s.l., 1 ♀ 1 ♂ 4.VIII.1986, 1 ♂ 5.VIII.1986, Beklemeto, 1500 m a.s.l., 1 ♀ 20.VII.1980, peak Shipka, 1 ♀ 3.VIII.1978, 1 ♂ 13.VI.1981, 1 ♀ 26.VI.1987 1 ♀ 26.VI.1987, 1 ♀ 1 ♂ 18.VII.1987, 1 ♂ 26.VI.1989, hut Dermenka, 1 ♂ 9.VIII.1986, hut Tchumerna, 1 ♀ 8.VII.1992, Aglikina polyana, 2 ♀♀ 8.VII.1992, Buynovtsi, 1 ♀ VII.1992; *Strandzha Mt.*, Vitanovo, 1 ♀ 15.V.2000; *Sredna gora Mt.*, hut Bratan, 1 ♂ 16.VIII.1982, hut Barika dite, 1 ♂ 14.VI.1981; *Rhodope Mts.*, Stoykite, 1 ♂ 4.VIII.1978, hut Tchudnite mostove, 1600 m a.s.l., 1 ♀ 15.VII.1980, Beden, 750 m a.s.l., 1 ♀ 23.IX.1977, Dospat, 1 ♀ 1 ♂ 20.VI.1981, 1 ♀ 1 ♂ 24.VI.1981, Mezek, 1 ♂ 2.VIII.1978, Erqupria, 1700 m a.s.l., 1 ♂ 18.VII.1980, Lisichevo, 1 ♂ 20.VII.1985, 2 ♀♀ 4 ♂♂ 20.VII.1986, Prevala, 2 ♀♀ 25.VII.1986,



Figs 8-10. *Mesochorus samarae* Schwenke, 1999, undescrbed ♂: (8) face; (9) head, dorsal view; (10) metasoma, dorsal view.

Persenk, 1 ♂ 2.VIII.1978, Pamporovo, 1600 m a.s.l., 1 ♂ 3.VIII.1978, 1 ♀ 30.VIII.1992, leg. S. Petrov, hut Pachyaliitsa, 1600 m a.s.l., 3 ♀♀ 2.VIII.1978, 1 ♀ 10.VII.1980, 1 ♂ 12.VII.1980, Selishte, 1 ♀ 25.VII.1986, hut Izgrev, 1800 m a.s.l., 1 ♂ 14.VII.1977, Erupria, 1700 m a.s.l., 1 ♀ 15.VII.1978, Negerna, 1 ♀ 9.VIII.1978, Nikolovo, 400 m a.s.l., 1 ♂ 30.IX.1976, peak Malka Siutka, 2070 m a.s.l., 1 ♀ 10.VIII.1978, Gorna Mesta, 1 ♀ 23.VII.1986, Fotinovo, 2 ♀♀ 19.VII.1986, Velingrad, 800 m a.s.l., 1 ♂ 17.VIII.1977, hut Zdravets, 1200 m a.s.l., 1 ♂ 30.VII.1978, Zabardo, 1000 m a.s.l., 1 ♀ 21.IX.1977, hut Bryanovstitsa, 900 m a.s.l., 1 ♀ 14.VI.1984, Persenk, 1 ♀ 2.VIII.1978; *Osogovo Mt.*, hut Tri Buki, 1 ♂ 13.VI.1988; *Rila Mts.*, Raduil, 1 ♂ 24.VII.1982; *Pirin Mts.*, Gradevo, 1 ♂ 11.VI.1987; *Razgradski heights*, Trubatch, Malaise trap, 1 ♀ 2-17.X.1999, leg. K. Ivanov; **North Macedonia:** *Kitka Mt.*, 1000 m a.s.l., 1 ♂ 24.VI.1994.

Distribution: West Palaearctic region, known from Bulgaria (GREGOR 1933, KOLAROV 1981), **new record for North Macedonia.**

Discussion

With the present study, the number of Bulgarian Mesochorinae is increased from 54 to 100 taxa, representing almost a third of the known European species of this subfamily. This diversity is comparable to or even higher than it is known to date for other Central, South and South-Eastern European coun-

tries such as Austria with 93, Italy with 82 and Romania with 66 recorded taxa of Mesochorinae (YU et al. 2016).

Some groups of the large genus *Mesochorus* are still in need of revision for a correct separation and determination of many species, especially in the *declinans*- and *pectoralis*-groups sensu SCHWENKE (1999). As a result, a portion of our material could not be determined with certainty. We, therefore, expect a significantly higher number of Bulgarian Mesochorinae when more molecular data and hosts records become available in the future.

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