

Faunistic notes on the Mesochorinae (Hymenoptera: Ichneumonidae) of Northwestern Russia, with descriptions of the males of *Astiphromma flavoventrale* Riedel and *A. flagellator* Riedel

Фаунистические заметки о Mesochorinae (Hymenoptera: Ichneumonidae) Северо-Западной России с описанием самцов *Astiphromma flavoventrale* Riedel и *A. flagellator* Riedel

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КЛЮЧЕВЫЕ СЛОВА: Mesochorinae, наездники-ихневмониды, фауна, Северо-Западная Россия, описания.

ABSTRACT. In this faunistic survey, we give distributional records of 33 species of Mesochorinae (Hymenoptera: Ichneumonidae) which have recently been collected in Northwestern Russia. Of these, 13 taxa are new for the Russian fauna, namely *Mesochorus curvicauda* Thomson, 1886, *M. declinans* Habermehl, 1922, *M. diluvius* Schwenke, 1999, *M. errabundus* Hartig, 1838, *M. frondosus* Schwenke, 1999, *M. fulgorator* Horstmann, 2006, *M. haeselbarthi* Schwenke, 1999, *M. laricis* Hartig, 1838, *M. perticatus* Schwenke, 1999, *M. suomensis* Schwenke, 1999, and *M. tetricus* Holmgren, 1860. Two unknown males of *Astiphromma flagellator* Riedel, 2015 and *A. flavoventrale* Riedel, 2015 are also described.

РЕЗЮМЕ. В этом фаунистическом обзоре приведены данные по распространению 33 видов Mesochorinae (Hymenoptera: Ichneumonidae), полученные при обработке материала с северо-запада России. Из них 13 видов, а именно *Mesochorus curvicauda* Thomson, 1886, *M. declinans* Habermehl, 1922, *M. diluvius* Schwenke, 1999, *M. errabundus* Hartig, 1838, *M. frondosus* Schwenke, 1999, *M. fulgorator* Horstmann, 2006, *M. haeselbarthi* Schwenke, 1999, *M. laricis* Hartig, 1838, *M. perticatus* Schwenke, 1999, *M. suomensis* Schwenke, 1999 и *M. tetricus* Holmgren, 1860 являются новыми для российской фауны. Кроме того, описаны ранее неизвестные самцы *Astiphromma flagellator* Riedel, 2015 и *A. flavoventrale* Riedel, 2015.

Introduction

The subfamily Mesochorinae is a moderately large, cosmopolitan group of Ichneumonidae with almost 900 extant species, and more than 300 different taxa in the Western Palearctic region [Yu et al., 2012]. Members of this subfamily are endophagous obligatory hyperparasitoids that attack ichneumonids, braconids and tachinid larvae parasitizing a wide range of primary hosts [Gauld, Bolton, 1988]. In the Palearctic region, primary hosts are usually larvae of Lepidoptera or of Tenthredinoidea (Hymenoptera), and rarely adult Coleoptera [Schwenke, 1999].

The European mesochorines were recently revised by Schwenke [1999, 2000, 2002, 2004] who described a large number of new taxa. His descriptions, however, are very short and therefore difficult to use for an unequivocal determination. Horstmann [2006] has corrected some taxonomical mistakes and described a few new species. The European species of *Astiphromma* Förster, 1869 have actually been revised by Riedel [2015], the new males of two *Astiphromma* species described here were identified shortly after publication and could not be included in this revision.

The mesochorine fauna of Russia has been addressed in several publications in the past [Woldstedt, 1873, 1881; Kokujev, 1927; Meyer 1927, 1929, 1930a, 1930b, 1935; Telenga, 1929; Roman, 1931; etc.], but a modern analysis including many Mesochorinae species described by Schwenke has not been performed so far for this area.

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Material and methods

Here, we give an account of Mesochorinae collected in Northwestern Russia (Republic of Karelia and Murmansk Province) in the last years usually by hand-netting or by light-weight Malaise traps. If it is not mentioned otherwise, all specimens were collected by the second author, A. Humala. Almost all determinations were done by the first author, M. Riedel, but for this study we excluded some species which could not be determined with certainty.

In this paper we list a total of 33 species from 4 genera of Mesochorinae from East Fennoscandia, 13 species are new to the Russian fauna.

Location coordinates are given according to the WGS84 coordinate reference system (EPSG:4326), with the following abbreviations for biogeographical provinces of East Fennoscandia: *Kl* — *Karelia ladogensis*, *Kol* — *Karelia olonensis*, *Kon* — *Karelia onegensis*, *Kb* — *Karelia borealis*, *Kpoc* — *Karelia pomorica occidentalis*, *Kk* — *Karelia keretica*, *Lim* — *Lapponia imandrae*, *Lps* — *Lapponia petsamoensis* [Heikinheimo, Raatikainen, 1971; Kravchenko, Kuznetsov, 2001].

The genera and species are listed in alphabetic order according to the recent Interactive Catalogue of World Ichneumonidae [Yu et al., 2012]. We also use distributional records from this catalogue.

List of species

Astiphromma Förster, 1869

Astiphromma anale (Holmgren, 1860)

MATERIAL. Karelia, *Kon*: Kivach nature reserve, pine forest (*Cladonia* type), 62.2517° N 34.007° E, Malaise trap, 4–8.VI.1989, 2 ♀♀ 1 ♂; Karelia, *Kon*: surroundings of Medvezh'egorsk, Padun, pine forest, 62.934° N 34.347° E 11.VI.2000, 1 ♂; Karelia, *Kon*: 3 km NE Medvezh'egorsk, pine forest, plot 6, 62.952° N 34.385° E 19.VII.2002, 1 ♀; Karelia, *Kon*: Vottovaara mt., 63.0842° N 32.6249° E, Malaise trap, 1 ♀ 1 ♂ 17.VI–17.VII.2008; Karelia, *Kk*: 2 km SW Gridino, 65.908° N 34.630° E, Malaise trap 4.VII–9.VIII.2007, 1 ♂; Murmansk Province, *Lim*: Laplandsky nature reserve, 4 km SE Chunozero, 67.642° N 32.681° E 30.V–23.VI.2014, 1 ♀, Malaise trap; ibid, 23.VI–28.VII.2014, 1 ♀; Murmansk Province, *Lim*: Laplandsky nature reserve, El'jav lake, 67.659° N 32.642° E, Malaise trap 23.VI–28.VII.2014, 1 ♂.

DISTRIBUTION. Western Palearctic region, known from Russia [Riedel, 2015] including Karelia [Humala, 1997].

Astiphromma dorsale (Holmgren, 1860)

MATERIAL. Karelia, *Kol*: vicinity of Mayachino, 60.778° N 32.822° E 23.VI.2012, 1 ♂; Karelia, *Kon*: Kivach nature reserve, spruce forest, plot 6, 62.285° N 33.972° E 21.VI.2002, 1 ♀; Karelia, *Kon*: Vanchozero, 62.525° N 34.829° E 23.VII.2012, 1 ♀.

DISTRIBUTION. Palearctic and Oriental regions, known from Russia [Lee, 1992; Riedel, 2015] including Karelia [Humala, 1997].

Astiphromma flagellator Riedel, 2015

MATERIAL. Karelia, *Kon*: Kivach nature reserve, aspen forest, 62.2524° N 33.9572° E, Malaise trap 21–27.VI.1990, 1 ♂; ibid, 27.VI–7.VII.1990, 1 ♂.

DESCRIPTION OF MALE. Body length 5.0 mm. Flagellum with 25–26 flagellomeres, short, first flagellomere

0.5x as long as eye, preapical flagellomeres 1.5x longer than wide. Mandibular teeth of equal size. Face, temple and frons with coarse puncture. Temple roundly narrowed behind eye, 0.8x as wide as eye in side view. Lateral margins of face slightly divergent ventrally. Distance between lateral ocellus and eye 1.25x diameter of ocellus.

Lower half of mesopleuron with superficial but moderately dense punctures. Scutellum not carinate. Propodeum completely carinate, area superomedia short, about 1.5x as long as wide, area petiolaris very large, hexagonal, about 0.4x as long as propodeum. Femur III stout, 3.6x as long as wide. Metatarsus III about 0.43x as long as tibia III, inner tibial spur III 0.65x as long as metatarsus III. Claw III with short basal teeth. Fore wing with almost interstitial nervulus, nervellus in hind wing more or less broken in lower 0.25, discoidella weakly sclerotized. Pterostigma about 3.0x as long as wide, radial cell about 1.1x as long as pterostigma.

First tergite 2.7x and postpetiolus 1.1–1.2x as long as wide, postpetiolus with fine apical striation, in one specimen lateral carina on postpetiole indistinct. Second tergite about as long as wide, thyridium small, roundish. Stylet short, not completely exposed, stab-shaped.

Colour: black. Flagellum infuscate. Palps, mandibles except teeth and clypeus yellow. Face black or with yellow marks in ventral third. Tegula and hind edge of pronotum yellowish. Coxa II more or less brownish, coxa III blackish. Femur III brownish. Legs otherwise reddish-yellow, tibia III infuscate in apical 0.3 (or completely yellowish), tarsus III brownish. Tergite 2 with narrow yellowish apical margin, tergite 3 with median yellow stripe. Pterostigma yellowish or brown.

TAXONOMICAL REMARK. Within the genus *Astiphromma*, the male can easily be identified by its more or less black face, darkened hind coxa and hind femur, and stout hind leg.

DISTRIBUTION. Western Europe, new for Russia.

Astiphromma flavoventrale Riedel, 2015

MATERIAL. Murmansk Province, *Lps*: Pasvik nature reserve, Menikkajoki, birch forest, 69.3737° N 29.8824° E 5.VI.2007, 1 ♂.

DESCRIPTION OF MALE: Body length 5.0 mm. Flagellum stout, filiform, with 32 flagellomeres, first flagellomere 0.75x as long as eye, preapical flagellomeres about 1.5x as long as wide. Mandibular teeth of equal size. Head granulate, matt. Face with superficial punctures, lateral margins parallel. Temple moderately narrowed behind eye, 0.8x as wide as eye in side view. Distance between lateral ocellus and eye about 1.25x diameter of ocellus. Genal and hypostomal carinae joining far from mandibular base. Hypostomal carina not elevated.

Lower part of mesopleuron with dense granulation and scattered fine punctures, matt. Upper part of mesopleuron granulate and punctate, speculum partly smooth. Scutellum not carinate. Propodeum with complete carination, area superomedia wide, about 1.5x as long as wide, with costula in basal third. Area petiolaris short, about as long as wide. Coxa III rugulose-punctate, matt. Femur III 5.2x as long as wide. Metatarsus III about 0.5x as long as tibia III. Inner spur of tibia III 0.4x as long as metatarsus III. Claw III with distinct basal teeth. Fore wing with interstitial nervulus. Nervellus of hind wing broken in lower 0.2, but discoidella not developed. Pterostigma about 3.3x as long as wide, anterior margin of radial cell as long as pterostigma.

First tergite slender, 2.3x as long as wide, postpetiole 1.4x as long as wide. Postpetiolus with fine rugulo-striation. Second tergite about 1.25x as long as wide, without distinct

thyridium. Stylet slightly clubbed apically, about 0.8x as long as second tarsomere III.

Colour: Black. Clypeus, palps, malar space, mandibles except teeth, lower 0.3 of temple, face, flagellum, propleura, subtegular ridge, dorsal and ventral margins of pronotum, tegulae, anterolateral spots on mesoscutum, mesosternum entirely, lower third of mesopleuron, coxae I and II and all trochanters and trochantelli, ventral part of coxa III, apical triangular stripes of tergites 2–7 pale yellowish. Tergite 3 with reddish basal triangular spot. Legs yellowish-red, coxa III and trochanter III with diffuse dorsal blackish stripe. Pterostigma hyaline yellowish, margins somewhat darkened.

TAXONOMICAL REMARK: This species resembles *Astiphromma luridum* Schwenke, 1999 and runs to this taxon in the recent key by Riedel [2015], but males of the latter species are more robust, temples are less narrowed, hind claws have no distinct teeth, and the flagellum and pterostigma are brownish. The hind coxa also has no dark dorsal stripe. The description of the male of *A. luridum* published in Riedel [2015] is therefore a combination of both species.

DISTRIBUTION. Known from Sweden, new for Russia.

Astiphromma splenium (Curtis, 1833)

MATERIAL. Karelia, *Kon*: Kivach nature reserve, 62.257° N 34.012° E 4.VII.2001, 1♀; Karelia, *Kon*: Kivach nature reserve, aspen forest, 62.2524° N 33.9572° E, Malaise trap 21–27.VI.1990, 1♂; Karelia, Karelia, *Kon*: Samo mt., pine forest, plot 9, 62.038° N 34.097° E 15.VII.2002, 1♀; *Kon*: Kizhi skerries, vicinity of Zharnikovo, 62.06° N 35.21° E 7.VI.1995, 1♂; Karelia, *Kon*: Kizhi skerries, Yu. Oleny island, 62.05° N 35.55° E 20.VII.2000, 1♀; Karelia, *Kon*: vicinity of Turastamozero, pine forest, 62.5603° N 34.7163° E, Malaise trap 21.VII–22.VIII.2012, 1♀; Karelia, *Kon*: Belya Gora, pine forest, 62.581° N 33.947° E 16.VII.2002, 1♀; Karelia, *Kon*: Vottovaara mt., 63.0842° N 32.6249° E, Malaise trap 17.VI–17.VII.2008, 1♂; Karelia, *Kb*: Tolvoyarvi, 62.317° N 31.435° E, Malaise trap 2–11.VI.1999, 1♀; ibid, Malaise trap 3–15–22.VII.1999, 1♀; FINLAND, *Kb*: Ilomantsi, Pirhu, 62.9754° N 31.4021° E 10–17.VI.1993, 1♂.

DISTRIBUTION. Widespread in the Holarctic region, known from Russia [Riedel, 2015] including Karelia [Humala, 1997] (as *A. strenuum* (Holmgren, 1860)).

Astiphromma striatum (Brischke, 1880)

SYN. *A. mandibulare* Thomson, 1886

MATERIAL. Karelia, *Kon*: Kivach nature reserve, aspen forest, 62.2646° N 33.9798° E, Malaise trap 30.VI–3.VII.1989, 1♀; FINLAND, *Kb*: Ilomantsi, Pirhu, 62.9754° N 31.4021° E 10–17.VI.1993, 1♀ 1♂; ibid 2–6.VII.1993, 1♀.

DISTRIBUTION: Palearctic region, known from Russia [Roman, 1931; Riedel, 2015] including Karelia [Humala, 1997].

Cidaphus Förster, 1869

Cidaphus areolatus (Boie, 1850)

MATERIAL. Karelia, *Kon*: Kizhi skerries, Pod'elniki, 62.1057° N 35.1744° E, Malaise trap 18–22.VII.2011, 1♀.

DISTRIBUTION: Palearctic region, known from Russia [Szépligeti, 1914].

Mesochorus Gravenhorst, 1829

Mesochorus atriventris Cresson, 1872

SYN. *M. syvarum* Haliday, 1838 non Curtis, 1833

MATERIAL. Karelia, *Kon*: Kivach nature reserve, pine forest (*Cladonia* type), 62.2517° N 34.007° E, Malaise trap 26–29.VII.1990, 1♀; Karelia, *Kon*: Kivach nature reserve, 62.2667° N 33.9838° E, light trap 11–15.X.1990, 1♀; Karelia, *Kon*: vicinity of Turastamozero, pine forest, 62.5603° N 34.7163° E, Malaise trap 21.VII–22.VIII.2012, 1♂.

DISTRIBUTION. Western Palearctic and Nearctic regions, known from Russia including Karelia [Humala, 1997] as *M. syvarum*.

Mesochorus cimbicus Ratzeburg, 1844

MATERIAL. Karelia, *Kon*: Kivach nature reserve, 62.2667° N 33.9838° E, light trap 11–15.X.1990, 1♀.

DISTRIBUTION. Palearctic and Oriental regions, known from Russia [Meyer, 1927, 1935; Bogush, 1962; Suh et al., 1997].

Mesochorus curvicauda Thomson, 1886

MATERIAL. Karelia, *Kon*: Kivach nature reserve, aspen forest, 62.2524° N 33.9572° E, Malaise trap 10–12.VII.1990, 1♀; Karelia, *Kk*: 2 km SW Gridino, 65.908° N 34.630° E, Malaise trap 4.VII–9.VIII.2007, 1♀.

DISTRIBUTION. Western Palearctic region, new for Russia.

Mesochorus declinans Habermehl, 1922

MATERIAL. Murmansk Province, *Lim*: Laplandsky nature reserve, El'javri lake, 67.659° N 32.642° E, Malaise trap 23.VI–28.VII.2014, 1♀.

DISTRIBUTION. Western Palearctic region, new for Russia.

Mesochorus diluvius Schwenke, 1999

MATERIAL. Karelia, *Kb*: Tolvoyarvi, 62.317° N 31.435° E, Malaise trap 15–22.VII.1999, 1♀.

DISTRIBUTION. Western Palearctic region, new for Russia.

Mesochorus discitergus (Say, 1835)

MATERIAL. Karelia, *Kpoc*: Kostomuksha nature reserve, 64.47° N 30.57° E, Malaise trap 25.VIII.1995, 1♀; ibid, 27.VIII.1995, 1♀.

DISTRIBUTION. Almost worldwide, known from Russia [Horstmann, 2003].

Mesochorus dispar Brischke, 1880

MATERIAL. Karelia, *Kon*: Kivach nature reserve, pine forest (*Cladonia* type), 62.2517° N 34.007° E, Malaise trap 31.V–5.VI.1989, 1♀.

DISTRIBUTION. Western Palearctic region, known from Russia [Meyer, 1935].

Mesochorus errabundus Hartig, 1838

MATERIAL. Karelia, *Kl*: vicinity of Impilahti, 61.66° N 31.13° E 29.VII.1994, 1♂.

DISTRIBUTION. Known from Germany, new for Russia.

Mesochorus frondosus Schwenke, 1999

MATERIAL. Karelia, *Kon*: Kivach nature reserve, pine forest, 62.2517° N 34.007° E, emergence trap 1–11–26.VIII.1992, 1♂.

DISTRIBUTION. Known from Germany, new for Russia.

Mesochorus fulgorans Curtis, 1833

MATERIAL. Karelia, *Kon*: Kivach nature reserve, 62.2667° N 33.9838° E, light trap 1–3.IX.1990, 1♀; Karelia, *Kpoc*: Kuzova archipelago, Zhiloy island, supralitoral meadow, 64.945° N 35.239° E 22.VII.2001, 2♀♀.

DISTRIBUTION. Palearctic and Oriental, known from Russia [Woldstedt, 1873; Roman, 1931; Meyer, 1935; Suh et al., 1997] including Karelia [Humala, 1997].

Mesochorus fulgorator Horstmann, 2006

MATERIAL. Karelia, *Kon*: Kivach nature reserve, aspen forest, 62.2524° N 33.9572° E, Malaise trap 26–30.VII.1990, 1♀.

DISTRIBUTION. Western Palearctic region, new for Russia.

Mesochorus giberius (Thunberg, 1822)

MATERIAL. Karelia, *Kon*: 2 km ESE M. Gomselga, plot 4, 62.066° N 33.980° E 4–6.VII.2012, 2 ♂♂; Karelia, *Kon*: Kivach nature reserve, along the road, 62.2641° N 33.9538° E 10.VI.1991, 1 ♂; Karelia, *Kpoc*: Kamennoe lake, 64.815° N 30.112° E 8.VII.1996, 1 ♂.

DISTRIBUTION. Almost worldwide, known from Russia [Meyer, 1935; Suh et al., 1997].

Mesochorus haeselbarthi Schwenke, 1999

MATERIAL. Karelia, *Kpoc*: Kostomuksha nature reserve, 64.47° N 30.57° E, Malaise trap 25.VIII.1995, 1 ♀.

DISTRIBUTION. Central Europe, new for Russia.

Mesochorus laricis Hartig, 1838

MATERIAL. Karelia, *Kon*: Kivach nature reserve, pine forest (*Vaccinium myrtillus* type), 62.295° N 34.005° E 4.VII.2001, 1 ♀; Karelia, *Kon*: Kivach nature reserve, pine forest, plot 1, 62.286° N 34.006° E 1.VIII.2003, 1 ♀; Karelia, *Kon*: Kivach nature reserve, pine forest (*Cladonia* type), 62.2517° N 34.007° E, Malaise trap 9–12.VII.1990, 1 ♀.

DISTRIBUTION. Western Palearctic region, new for Russia.

Mesochorus olerum Curtis, 1833

MATERIAL. Karelia, *Kpoc*: Kostomuksha Nature reserve, 64.47° N 30.57° E, Malaise trap 25. VIII.1995, 1 ♀; Murmansk Province, *Lim*: Laplandsky nature reserve, 4 km SE Chunozero, 67.642° N 32.681° E, Malaise trap 28.VII–26.VIII.2014, 1 ♀.

DISTRIBUTION. Palearctic region, known from Russia [Woldstedt, 1881; Meyer, 1927, 1935].

Mesochorus perticatus Schwenke, 1999

MATERIAL. Karelia, *Kon*: Kivach nature reserve, pine forest (*Vaccinium myrtillus* type), 62.2648° N 33.9568° E, Malaise trap 31.V–5.VI.1989, 1 ♀.

DISTRIBUTION. Known from Germany and United Kingdom, new for Russia.

Mesochorus pictilis Holmgren, 1860

MATERIAL. Karelia, *Kb*: Tolvoyarvi, 62.317° N 31.435° E, Malaise trap 1 28.VII–5.VIII.1999, 1 ♀.

DISTRIBUTION. Holarctic region, known from Russia [Meyer, 1935].

Mesochorus politus Gravenhorst, 1829

MATERIAL. Karelia, *Kon*: 1 km SSW Konchezero, 62.108° N 33.994° E 4.VII.2012, 1 ♀; Karelia, *Kpoc*: Muarlampi, 64.048° N 32.217° E 9.VII.2009, 1 ♂, leg. A. Polevoi.

DISTRIBUTION. Palearctic and Oriental regions, known from Russia [Meyer, 1935; Suh et al., 1997] including Karelia [Humala, 1997].

Mesochorus rubeculus Hartig, 1838

MATERIAL. Karelia, *Kl*: Valaam island, pine forest, 61.398° N 30.979° E, Malaise trap 27.VII–2.VIII.2009, 1 ♀, leg. A. Polevoi.

DISTRIBUTION. Western Palearctic region, known from Russia [Meyer, 1927].

Mesochorus semirufus Holmgren, 1860

MATERIAL. Karelia, *Kb*: Tolvoyarvi, 62.317° N 31.435° E, Malaise trap 2 11–22.VI.1999, 1 ♀.

DISTRIBUTION. Palearctic and Oriental regions, known from Russia [Meyer, 1927, 1935; Roman, 1931; Suh et al., 1997].

Mesochorus suomensis Schwenke, 1999

SYN. *M. acutus* Schwenke, 1999

MATERIAL. Karelia, *Kon*: Kivach nature reserve, aspen forest, 62.2524° N 33.9572° E, Malaise trap 10–12.VII.1990, 1 ♂.

DISTRIBUTION. Western Palearctic region, new for Russia.

Mesochorus tetricus Holmgren, 1860

MATERIAL. Karelia, *Kon*: Kivach nature reserve, 62.2667° N 33.9838° E, light trap 1–3.IX.1990, 1 ♀.

DISTRIBUTION. Western Palearctic region, new for Russia.

Mesochorus testaceus Gravenhorst, 1829

MATERIAL. Karelia, *Kon*: 2 km ESE M. Gomselga, plot 4, 62.066° N 33.980° E 4–6.VII.2012, 1 ♂; Karelia, *Kon*: Kizhi skerries, Yu. Oleny island, 62.045° N 35.355° E 20.VII.2000, 1 ♂.

DISTRIBUTION. Palearctic region, known from Russia [Becker, 1857; Szépligeti, 1914].

Mesochorus vittator Zetterstedt, 1838

MATERIAL. Karelia, *Kb*: Tolvoyarvi, 62.317° N 31.435° E, Malaise trap 26.VIII–2.IX.1999, 1 ♀.

DISTRIBUTION. Holarctic and Neotropical regions, known from Russia [Woldstedt, 1873; Meyer, 1929, 1935; Uchida, 1933, 1935].

Mesochorus vitticollis Holmgren, 1860

MATERIAL. Karelia, *Kol*: vicinity of Mayachino, 60.776° N 32.826° E 22.VI.2012, 1 ♀; Karelia, *Kol*: Petrozavodsk, 61.768° N 34.370° E 17.VIII.2003, 1 ♀; Karelia, *Kon*: Kivach nature reserve, aspen forest, 62.2646° N 33.9798° E 5–6.VII.1989, 1 ♀.

DISTRIBUTION. Western Palearctic region, known from Russia [Meyer, 1935] including Karelia [Krogerus, 1938; Humala, 1997].

Stictopisthus Thomson, 1886*Stictopisthus unicinctor* (Thunberg, 1822)

MATERIAL. Karelia, *Kon*: Kivach nature reserve, aspen forest, 62.2646° N 33.9798° E, Malaise trap 27–29.VI.1989, 1 ♀; Murmansk Province, *Lim*: Laplandsky nature reserve, El'javr lake, 67.659° N 32.642° E, Malaise trap 26.VIII–22.IX.2014, 1 ♀.

DISTRIBUTION. Palearctic region, known from Russia [Telenga, 1929; Meyer, 1933, 1935].

Discussion

The Mesochorinae is a moderately large group of Ichneumonidae. Here, we give a short account of Mesochorinae from Northwestern Russia (Murmansk Province and Republic of Karelia, belonging to East Fennoscandia). Since this subfamily has been found to be quite species-rich in comparable countries (e.g. 103 species in neighboring Finland [Yu et al., 2012]), we expect much more species of this subfamily to be found in this area in the future.

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References

- Becker A. 1857. Naturhistorischer Bericht aus der Umgebung von Serapta vom Jahre 1855 und einige Bemerkungen über das Tödten und Fangen der Insekten // Bulletin de la Société Impériale des Naturalistes de Moscou. T.30. P.250–272.

- Bogush P.P. 1962. [Flight of Ichneumonidae (Hymenoptera) to a light trap at Bryansk in 1958] // Entomologicheskoe Obozrenie. Vol.41. P.572–575 [in Russian].
- Gauld I., Bolton B. 1988. The Hymenoptera. Oxford University Press. 332 pp.
- Heikinheimo O., Raatikainen M. 1971. The recording of locations of biological finds in Finland // Annales Entomologici Fennici. Vol.37. No.1a. P.1–27.
- Horstmann K. 2003. Revisionen von Schlupfwespen-Arten VII (Hymenoptera: Ichneumonidae) // Mitteilungen Münchner Entomologische Gesellschaft. Vol.93. P.25–37.
- Horstmann K. 2006. Revisionen einiger europäischer Mesochorinae (Hymenoptera, Ichneumonidae) // Linzer Biologische Beiträge. Vol.38. P.1449–1492.
- Humala A.E. 1997. [On the fauna of Hymenoptera Apocrita of Nature Reserve "Kivach" — In: Flora and fauna of the nature protected territories of Karelia] (ed. Kravchenko A.V.). Vol.1. Karel'skiy nauchnyi tsentr RAN, Petrozavodsk. P.50–72. [in Russian with English summary].
- Kokujev N.R. 1927. [Hymenoptera recueillies par V. Sovinskij sur les bords du lac Bajkal en 1902] // Trudy Komissii po izucheniyu ozera Baikal (Leningrad). Travaux de la Commission pour l'étude du lac Bajkal. Vol.2. P.63–76 [in Russian with Latin descriptions].
- Kravchenko A.V., Kuznetsov O.L. 2001. [Peculiarities of biogeographical provinces of the Republic of Karelia on the basis of analysis of vascular plants flora] // Trudy Karel'skogo nauchnogo tsentra RAN. Biogeographia Karelii. No.2. P.59–64 [in Russian with English summary].
- Krogerus R. 1938. Parasitsteklar från torvmakerna i Kuusamo-området // Notulae Entomologicae. Vol.18. S.105–108.
- Lee J.W. 1992. A revision of species of the B-group of *Astiphromma* (Hymenoptera: Ichneumonidae: Mesochorinae) // Oriental Insects. Vol.26. P.213–239.
- Meyer N.F. 1927. [Parasites (Ichneumonidae and Braconidae) bred in Russia from injurious insects during 1881–1926] // Izvestiya Otdela Prikladnoy Entomologii. Vol.3. P.75–91 [in Russian].
- Meyer N.F. 1929. [Schlupfwespen, die in Russland in den Jahren 1891–1926 aus Schädlingen gezogen sind (Vortersetzung)] // Izvestiya Otdela Prikladnoy Entomologii. Vol.4. P.231–248 [in Russian].
- Meyer N.F. 1930a. [Schlupfwespen, die in USSR im Jahre 1929 aus *Loxostege sticticalis* L. gezogen sind] // Izvestiya Otdela Prikladnoy Entomologii. Vol.4(2). P.499–501 [in Russian].
- Meyer N.F. 1930b. [Scientific results of the entomological expeditions of the Zoological Museum in Ussuri territory: I. Hymenoptera, Ichneumonidae] // Ezhegodnik Zoologicheskogo Muzeya Akademii Nauk SSSR. Vol.31. P.165–180. [in Russian].
- Meyer N.F. 1935. [Parasitic Hymenoptera of the family Ichneumonidae of the USSR and adjacent countries. Part 4. Ophioninae] Moscow-Leningrad. Akademia Nauk SSSR Press. 16. Vol.4. P.1–535. [in Russian].
- Riedel M. 2015. Revision of the European species of the genus *Astiphromma* Förster, 1869 (Hymenoptera, Ichneumonidae, Mesochorinae) // Spixiana. Vol.38. P.85–132.
- Roman A. 1931. Entomologische Ergebnisse der schwedischen KamtschatkaExpedition 1920–1922. 33. Ichneumonidae, Subfamilien Pimplinae und Tryphoninae // Arkiv för Zoologi. Bd.23A. Hf.6. S.1–32.
- Schwenke W. 1999. Revision der europäischen Mesochorinae (Hymenoptera, Ichneumonoidea, Ichneumonidae) // Spixiana, Supplement. Vol.26. P.1–124.
- Schwenke W. 2000. Eine neue *Mesochorus*-Art aus Käfern, mit einer Betrachtung der aus Käfern bekannten Mesochorinae (Hymenoptera, Ichneumonidae, Mesochorinae) // Entomofauna. Vol.21. P.49–56.
- Schwenke W. 2002. Neue europäische Mesochorinae-Arten (Hymenoptera, Ichneumonidae, Mesochorinae) // Entomofauna. Vol.23. P.85–92.
- Schwenke W. 2004. Eine neue Gattung und 19 neue Arten und Geschlechter europäischer Mesochorinae (Hymenoptera, Ichneumonidae) // Entomofauna. Vol.25. P.81–88.
- Suh K.I., Lee J.W. and Choi W.Y. 1997. A systematic study of the Mesochorinae (Hymenoptera: Ichneumonidae) from the eastern Palearctic region 1. A review of the genus *Mesochorus* // Entomological Research Bulletin. Vol.23. P.1–28.
- Szépligeti G. 1914. Ichneumoniden aus der Sammlung des ungarischen National-Museums // Annales Musei Nationalis Hungarici. Vol.12. P.414–434.
- Telenga N.A. 1929. [Hymenopterous parasites of the family Ichneumonidae reared at the Kuban' Plant Protection Station in 1927] // Zashchita rasteniy ot vrediteley. Vol.6. P.225–226 [in Russian].
- Uchida T. 1933. Beiträge zur Systematik der Tribus Mesochorini Japans (Hym. Ichneumonidae) // Insecta Matsumurana. Vol.8. P.51–63.
- Uchida T. 1935. Beiträge zur Kenntnis der Ichneumonidenfauna der Kurilen // Insecta Matsumurana. Vol.9. P.108–122.
- Woldstedt F.W. 1873. Materialier till en Ichneumonologia Fennica // Aftryck ur Finska Vetenskaps-societetens. Bidrag till Känndom af Finlands Natur och Folk. H.21. Helsingfors. S.61–92.
- Woldstedt F.W. 1881. Fundorte russischer Ichneumoniden // Horae Societatis Entomologicae Rossicae. T.16. P.58–64.
- Yu D., van Achterberg C., Horstmann K. 2012. Taxapad 2012, Ichneumonoidea 2011 (electronic database). Ottawa, Ontario, Canada. Accessible at: www.taxapad.com