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ON THE FAUNA OF ICHNEUMONINAE (HYMENOPTERA, ICHNEUMONIDAE) OF RUSSIAN FENNOSCANDIA

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In this faunistic survey, findings of 114 Ichneumoninae species (excluding the tribe Phaeogenini) from Republic of Karelia, Murmansk and Arkhangelsk Regions are reported. Among them, five species are recorded from Russia for the first time, 54 species are new for the fauna of the Republic of Karelia, 17 for the Murmansk and seven species for the Arkhangelsk regions. A male of *Stenobarichneumon tegelensis* (Heinrich, 1951) is described for the first time. *Ichneumon sedulus* Gravenhorst, 1820 is a synonym of *Barichneumon sexalbatus* (Gravenhorst, 1820) **syn. nov.**, and the species status of *Barichneumon vicarius* (Wesmael, 1845) = *B. sedulus* auct. nec Gravenhorst is resurrected (**stat. rev.**).

Keywords: ichneumon wasps; species list; Russian Fennoscandia; Karelia, fauna, new findings, synonymy.

М. Ридель, А. Э. Хумала. К ФАУНЕ ПОДСЕМЕЙСТВА ICHNEUMONINAE (HYMENOPTERA, ICHNEUMONIDAE) РОССИЙСКОЙ ФЕННОСКАНДИИ

Приведены находки 114 видов наездников-ихневмонид подсемейства Ichneumoninae (кроме трибы Phaeogenini) из Республики Карелия, Мурманской и Архангельской областей. Из них пять видов отмечены впервые на территории России, 54 являются новыми для фауны Карелии, 17 – для Мурманской и 7 – для Архангельской области. Впервые дано описание самца *Stenobarichneumon tegelensis* (Heinrich, 1951). Установлено, что *Ichneumon sedulus* Gravenhorst, 1820 является синонимом *Barichneumon sexalbatus* (Gravenhorst, 1820), **syn. nov.**, а для *Barichneumon vicarius* (Wesmael, 1845) = *B. sedulus* auct. nec Gravenhorst восстановлен видовой статус (**stat. rev.**).

Ключевые слова: наездники-ихневмониды; список видов; российская Фенноскандия; Карелия, фауна, новые находки, синонимия.

Introduction

Ichneumonidae is one of the largest families of hymenopterous insects and the largest family in the Fennoscandian entomofauna, e. g. the num-

ber of recorded species in Finland is more than 2500 [Koponen et al., 2009]. The subfamily Ichneumoninae represents a significant group within the family Ichneumonidae, whose members usually parasitize lepidopteran larvae and pupae. Although this group

includes many large and colorful species, our knowledge of the taxonomy and distribution of Palaearctic Ichneumoninae is still incomplete, even in well studied areas such as Europe. Accounted in a recent catalogue, about 1300 species of the subfamily Ichneumoninae have so far been recorded from the Western Palaearctic region [Yu et al., 2016].

The Russian part of Fennoscandia, encompassing the Murmansk Region, Republic of Karelia and Northern parts of the Leningrad Region (Karelian Isthmus, right bank of the Svir' River), is still studied insufficiently, as all previous researches were fragmentary, based on scarce collections. The ichneumonine fauna of the Russian Fennoscandia has been addressed in few studies. Some records can be found in numerous faunistic articles by Wolter Hellén [1936, 1939, 1946; etc.] and some other authors [Krogerus, 1938, 1960; Kerrich, 1939; Ranin, 1979, 1981; etc.]. These data are available in the papers based on collections from the territories belonging to Finland before World War II, and also resulted from the treatment of the materials collected during the war from temporarily occupied territories of Russian Karelia.

Rasnitsyn and Siyan [1981] provided an overview of the subfamily Ichneumoninae from the European part of the USSR, with useful identification keys and distribution records.

Our previous publication devoted to Ichneumoninae from the European part of Russia referred to 76 species reported from the Russian Fennoscandia (73 species from Karelia and six from the Murmansk Region) [Riedel & Humala, 2009], where 43 species from Karelia and six species from the Murmansk Region were registered for the first time.

In this paper, we report new findings of 114 species of Ichneumoninae (excluding the tribe Phaeogenini). Among them, five species are recorded from Russia for the first time, 54 species are new for Karelia, 17 for the Murmansk and seven species for the Arkhangelsk regions.

Thus, nowadays 262 species from the subfamily Ichneumoninae are known to occur in the Russian Fennoscandia (Humala, pers. obs.). It is roughly a half of the number of species known from Finland (which occupies a comparable territory with similar natural conditions and with ichneumonid fauna considered to be rather well studied), where 451 species of ichneumonines were reported [Koponen et al., 2009]. Thus, the level of our knowledge in this field still remains insufficient, despite of certain progress achieved lately.

Material and methods

The material for the present study was mostly collected by sweep netting and by Malaise and yel-

low pan traps, predominantly by the second author in the Russian Fennoscandia: in Karelia, Murmansk Region and some adjacent territories of the Arkhangelsk Region. Notes of abbreviated biogeographical provinces of East Fennoscandia are given according to Heikinheimo and Raatikainen [1971] with additions by Kravchenko and Kuznetsov [2001]. Members of the tribe Phaeogenini are not treated here. The studied materials are shared and stored in both authors' collections. The Latin names are given in alphabetic order according to the recent version of the World Ichneumonoidea Catalogue [Yu et al., 2016]. We provide general species distribution data with more details on Russian Fennoscandia according to this catalogue as well as to the Key to the insects of the European part of the USSR [Rasnitsyn & Siyan, 1981]. The following abbreviations are used in the text: AH = A. Humala, AP = A. Polevoi, MT = Malaise trap, YPT = yellow pan trap.

Results

Tribe PLATYLABINI

Cyclolabus alpinus (Habermehl, 1917)

Material: **Murmansk Reg.** *Lps*: Pasvik Nature Reserve, Menikkayoki R., 69.3737°N, 29.8824°E, birch forest, MT, 5.VI – 6.VII.2007, 1 ♀, leg. AH; Varlam Is., 69.1376°N, 29.2616°E, MT, pine forest, 3.VIII – 10.X.2007, 1 ♀, leg. AH; *Lim*: Lapland Nature Reserve, 4 km SE of Chunozero, 67.642°N, 32.681°E, pine forest, MT, 23.VI – 28.VII.2014, 1 ♀, leg. AH.

Distribution: Western Palaearctic region, **new for Russia**.

Dentilabus variegatus (Wesmael, 1845)

Material: **Karelia**. *Kk*: Gridino environs, 65.916°N, 34.667°E, 4.VII.2007, 1 ♀, leg. AH.

Distribution: Western Palaearctic region, known from Russia [Rasnitsyn & Siyan, 1981], new for Karelia.

Hypomecus quadriannulatus (Gravenhorst, 1829)

Material: **Karelia**. *Kol*: Mayachino environs, 60.777°N, 32.818°E, YPT, 23–28.VI.2012, 1 ♀, leg. AH; *Kon*: Bolshoy Klimenetskiy Is., Voinavolok Headland, 61.97°N, 35.34°E, meadow, 29.VI.2017, 1 ♀, leg. AH; Yuzhny Oleniy Is., 62.05°N, 35.36°E, meadow, 5.VII.2017, 2 ♀♀, leg. AH; Sukhoi Is., 62.00°N, 35.37°E, meadow, 6.VII.2017, 1 ♀, leg. AH; 1.5 km N of Vendyury, 62.24°N, 33.29°E, mixed forest, 29.VIII.2017, 1 ♂, 30.VIII.2017, 1 ♀ and 1 ♂, leg. AH; *Kton*: Kladovets cape, 61.667°N, 36.046°E, windfall, YPT, 30.VI–3.VII.2018, 5 ♀♀ and 1 ♂, leg. AH.

Distribution: Palaearctic region, known from Karelia [Riedel & Humala, 2009].

***Stenobarichneumon basiglyptus* (Kriechbauer, 1890)**

Material: **Karelia.** *Kl*: Meyeri, 61.621°N, 30.590°E, mixed forest, YPT, 4–6.VII.2010, 1♂, leg. AH; *Ko*: Mayachino environs, 60.78°N, 32.82°E, 23–28.VI.2012, 1♀, leg. AH; *Kpor*: Myagostrov Is., 64.32°N, 35.93°E, sea shore, 14.VIII.2002, 3♂♂, leg. AH; Ladozero, 63.580°N, 35.884°E, spruce forest, MT, 27.VI – 13.VIII.2010, 4♂♂, leg. AH; *Kk*: Lake Morzhovoe, 65.5387°N, 34.7105°E, 18.VII.2003, 1♂, leg. AP; Syrovatka, 65.5282°N, 34.7297°E, spruce forest, MT, 20–22.VII.2003, 1♀, leg. AP.

Distribution: Palaearctic region, known from Russia [Rasnitsyn & Siyan, 1981] including Karelia [Krogerus, 1938; Riedel & Humala, 2009].

***Stenobarichneumon tegelensis* (Heinrich, 1951)**

Material: **Karelia.** *Kk*: Syrovatka, 65.5282°N, 34.7297°E, spruce forest, MT, 20–22.VII.2003, 1♂, leg. AP.

Description of male:

Body length 6.5 mm. Flagella with 26 segments; tyloids on flagellomeres 5–14, long oval, as long as their segments. Temples roundly narrowed behind eyes, ca. 0.75x as long as eye width. Distance between lateral ocelli and eyes 1.3x the diameter of ocellus. Face and clypeus coarsely punctate, with fine granulation, but shining; frons punctate. Malar space ca. 0.7x as long as the width of the mandibular base. Genal carinae reaching hypostomal ones far from the mandibular base. Mesosoma punctate, covered with whitish hairs. Mesopleura and metapleura partly rugose; coxal carina distinct. Scutellum moderately elevated, slightly wider than long, with lateral carinae in the basal 0.5. Propodeum with slit-shaped spiracles. Area basalis with central tubercle; area superomedia crescent-shaped, slightly longer than wide; costulae absent. Hind femora stout, length 3.1x height. Claws without teeth.

Postpetiolus without dorsal carinae, coarsely punctate. Gastrocoeli slightly impressed. Thyridia oblique, wide, ca. 2x wider than their interval. All tergites punctate and more or less shining.

Color: Black. Mandibles centrally reddish. Palps partly ivory. Flagella black, ventrally brownish in the apical third. Vertices opposite to lateral ocelli with small triangular ivory spots. Mesosoma, including tegulae and scutellum, black. First tergite black, hind margin of postpetiolus narrowly red. Second and third tergites red; the following tergites black with narrow reddish hind margins. Coxae and trochanters black, legs with hind trochantelli otherwise reddish; middle femora partly infuscate dorsally and ventrally; hind femora

and hind tibiae infuscate in their apical 0.25; hind tarsi black, except the reddish base of metatarsi. Pterostigma brown.

Distribution: Western Palaearctic region, known from the Netherlands and Poland, new for Russia.

***Sycaonia foersteri* (Wesmael, 1848)**

Material: **Karelia.** *Kon*: Kivach Nature Reserve, 62.254°N, 33.998°E, birch forest, 6.VII.2001, 1♂, leg. AH; Ernitskiy Is., 61.9936°N, 35.1658°E, MT, 23–27.VI.2003, 2♂♂, leg. AH; *Kp*: 3 km SSW of Priechnyi, 61.772°N, 37.583°E, mixed forest, MT, 24.VI – 13.VIII.2009, 1♂, leg. AH; *Kpor*: Myagostrov Is., 64.32°N, 35.93°E, sea shore, 14.VIII.2002, 2♂♂, leg. AH.

Distribution: Western Palaearctic region, known from Russia [Rasnitsyn & Siyan, 1981], new for Karelia.

***Thryateles camelinus* (Wesmael, 1845)**

Material: **Karelia.** *Kl*: Kilpola Is., 61.20°N, 29.98°E, mire, 16.VI.2011, 1♀, leg. AH.

Distribution: Palaearctic region, known from Russia [Meyer, 1921, 1929, 1933; Rasnitsyn & Siyan, 1981], new for Karelia.

***Thryateles haereticus* (Wesmael, 1854)**

Material: **Karelia.** *Ko*: Mayachino environs, 60.78°N, 32.82°E, 22.VI.2012, 1♀, leg. AH; *Kon*: Myagrozero, 62.53°N, 34.76°E, meadow, 20.VII.2012, 1♂, leg. AH; Oyatevchina, 62.081°N, 35.174°E, meadow, 19.VII.2011, 1♂, leg. AH; **Arkhangelsk Reg.** Solovetsky Kremlin, 65.024°N, 35.710°E, 18.VIII.2002, 1♂, leg. AH.

Distribution: Palaearctic region, known from Russia [Meyer, 1933; Rasnitsyn & Siyan, 1981], including Karelia [Krogerus, 1938], new for the Arkhangelsk Region.

***Tricholabus strigatorius* (Gravenhorst, 1829)**

Material: **Karelia.** *Kpoc*: Russkiy Kuzov Is., 64.92°N, 35.14°E, sea shore, 18.VII.2001, 1♀, leg. AH; *Kpor*: Bolshoy Zhuzhmu Is., 64.66°N, 35.58°E, 23.VII.2001, 1♀, leg. AH.

Distribution: Palaearctic and Oriental regions, known from Russia [Woldstedt, 1878; Meyer, 1933; Rasnitsyn & Siyan, 1981], new for Karelia.

***Virgichneumon albosignatus* (Gravenhorst, 1829)**

Material: **Karelia.** *Kon*: Bolshoy Klimentevsky Is., 1 km S of Vorob'i, 62.0459°N, 35.2489°E, 20.VIII.2008, 1♂, leg. AH.

Distribution: Palaearctic region, known from Russia [Meyer, 1933; Rasnitsyn & Siyan, 1981], including Karelia [Hellén, 1936; Riedel & Humala, 2009].

***Virgichneumon callicerus* (Gravenhorst, 1820)**

Material: **Karelia.** *Kol:* Mayachino environs, 60.78°N, 32.82°E, YPT, 4–9.VII.2013, 1 ♀, leg. AH. Distribution: Palaearctic region, known from Russia [Ranin, 1979], new for Karelia.

***Virgichneumon krapinensis* (Schmiedeknecht, 1928)**

Material: **Karelia.** *Kol:* Petrozavodsk – Lososinnoe, 61.720°N, 34.222°E, plot 7, YPT, 9–12.VII.2012, 2 ♀♀, leg. AH; Petrozavodsk – Lososinnoe, 61.707°N, 34.244°E, plot 9, 10.VII.2012, 1 ♀, leg. AH; 61.702°N, 34.242°E, plot 10, 28.V.2013, 1 ♀, leg. AH; *Kk:* Syrovatka, 65.5282°N, 34.7297°E, spruce forest, MT, 20–22.VII.2003, 1 ♀ and 2 ♂♂, leg. AP. Distribution: Western Palaearctic region, known from Russia [Rasnitsyn & Siyan, 1981; Tereshkin, 2006], including Karelia [Riedel & Humala, 2009].

***Virgichneumon tergenus* (Gravenhorst, 1820)**

Material: **Karelia.** *Kol:* Mayachino environs, 60.78°N 32.82°E, YPT, 23–28.VI.2012, 1 ♀, leg. AH. Distribution: Western Palaearctic region, known from Russia [Rasnitsyn & Siyan, 1981; Tereshkin, 2006; Riedel & Humala, 2009], new for Karelia.

***Vulgichneumon deceptor* (Scopoli, 1763)**

Material: **Karelia.** *Kon:* Ernitskiy Is., 61.9936°N, 35.1658°E, MT, 23–27.VI.2003, 1 ♂, leg. AH; *Kpor:* Ladozero, 63.5876°N, 35.8442°E, spruce forest, MT, 27.VI – 13.VIII.2010, 2 ♂♂, leg. AH. Distribution: Palaearctic region, known from Russia [Meyer, 1933; Rasnitsyn & Siyan, 1981; Riedel & Humala, 2009], new for Karelia.

***Vulgichneumon saturatorius* (Linnaeus, 1758)**

Material: **Karelia.** *Kol:* 2 km N of Sheltozero, 61.40°N, 35.34°E, meadow, 13.VII.2004, 1 ♂, leg. AH; *Kon:* 2 km SE of Terek, 62.21°N, 33.86°E, mixed forest, 16.VIII.2017, 1 ♂, leg. AH; Severnyi Oleniy Is. 62.07°N, 35.35°E, 5.VII.2017, 1 ♀, leg. AH; *Kpor:* Myagostrov Is., 64.32°N, 35.93°E, sea shore, 14.VIII.2002, 1 ♂, leg. AH. Distribution: Palaearctic region, known from Russia [Meyer, 1933; Rasnitsyn & Siyan, 1981], including Karelia [Kerrich, 1939; Riedel & Humala, 2009].

***Vulgichneumon suavis* (Gravenhorst, 1820)**

Material: **Karelia.** *Kon:* Ernitskiy Is., 61.9936°N, 35.1658°E, MT, 23–27.VI.2003, 1 ♂, leg. AH; Malyi Lelikovskiy Is., 61.98°N, 35.15°E, meadow, 26.VI.2003, 1 ♂, leg. AH; 1 km E of Malaya Gomsel'ga, 62.066°N, 33.980°E, clear-cut site, 6.VI.2013, 1 ♂, leg. AH. Distribution: Palaearctic region, known from Russia [Meyer, 1933; Rasnitsyn & Siyan, 1981], including Karelia [Ranin, 1979].

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