

ТРУДЫ ЗООЛОГИЧЕСКОГО ИНСТИТУТА
РОССИЙСКОЙ АКАДЕМИИ НАУК

ПРИЛОЖЕНИЕ № 8

**АННОТИРОВАННЫЙ КАТАЛОГ
ПЕРЕПОНЧАТОКРЫЛЫХ НАСЕКОМЫХ РОССИИ**

ТОМ II

**НАЕЗДНИКИ-ПАРАЗИТОИДЫ
(APOCRITA: PARASITICA)**



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(APOCRITA: PARASITICA)

Под общей редакцией С.А. Белокобыльского и А.С. Лелея

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ANNOTATED CATALOGUE OF THE HYMENOPTERA OF RUSSIA. VOLUME II. APOCRITA: PARASITICA

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ABSTRACT

Hymenoptera is one of the largest insect orders, with a world fauna approximately of 160 thousand species in more than 8420 genera from 94 extant families, a Palaearctic fauna of 50–60 thousand estimated species, and a Russian fauna of 15.3 thousand species in 1999 genera from 78 families. The modern classification of Hymenoptera is given. The second volume treats the all recent groups of parasitoids (11 superfamilies, 43 families, 1466 genera, about 10.6 thousand species) recorded in the fauna of Russia. The sections for each of the 43 families include characteristics, number of taxa, references, and an annotated catalogue of the genera and species (subspecies) recorded from the fauna of Russia. For each valid genus, the type species, synonymy, short characterization, and number of species are given. For each valid species the synonymy, known host (often to genus or family level only) or sometimes host plants and distribution (in Russia and in general) are provided. The book is illustrated using geoschemes for Russia, Europe, and China. The large bibliography helps to assess the level of study of each family. The index of scientific names of Hymenoptera (more than 21 thousand names) will be useful for parasitoid taxa searching.

Key words: parasitoids, entomophagues, Stephanoidea, Evanioidea, Ceraphronoidea, Trigonaloidea, Proctotrupoidea, Diaprioidea, Platygastroidea, Cynipoidea, Chalcidoidea, Mymaromatoidea, Ichneumonoidea

АННОТИРОВАННЫЙ КАТАЛОГ ПЕРЕПОНЧАТОКРЫЛЫХ НАСЕКОМЫХ РОССИИ. ТОМ II. НАЕЗДНИКИ-ПАРАЗИТОИДЫ (APOCRITA: PARASITICA)

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РЕЗЮМЕ

Перепончатокрылые – один из самых больших отрядов насекомых, который насчитывает в мире приблизительно 160 тыс. видов, более 8420 родов из 94 рецензентных семейств; в Палеарктике ожидаются 50–60 тыс. видов, а в России отмечены 15.3 тыс. видов из 1999 родов и 78 семейств. Приведена современная классификация отряда Hymenoptera. Второй том включает все рецензентные группы наездников-паразитоидов (11 надсемейств, 43 семейства, 1466 родов, около 10.6 тысяч видов), отмеченных в фауне России. Каждый раздел каталога (43

семейства) содержит краткую характеристику, число таксонов, список основной литературы и аннотированный каталог родов и видов (подвидов), известных из России. Для каждого валидного рода приведены типовой вид, синонимия, краткая характеристика и число видов. Для каждого валидного вида приведены род его первоначального описания, синонимия, известные хозяева (в основном до уровня родов и семейств) и (в ряде случаев) кормовые растения, а также распространение (на территории России и общее). Книга иллюстрирована схематическими картами России, Европы и Китая. Большая библиография дает представление о степени изученности каждого семейства. Указатель латинских названий перепончатокрылых (в целом свыше 21 тысячи названий) должен облегчить поиск необходимых названий паразитоидов.

Ключевые слова: паразитоиды, энтомофаги, Stephanoidea, Evanioidea, Ceraphronoidea, Trigonalyoidea, Proctotrupoidea, Diaprioidea, Platygastroidea, Cynipoidea, Chalcioidea, Mymarommatoidea, Ichneumonoidea

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INFRAORDER EVANIOMORPHA

SUPERFAMILY EVANIOIDEA

15. FAMILY AULACIDAE

YU.N. SUNDUKOV AND A.S. LELEJ

Aulacidae (Evanioidea) are a small cosmopolitan family, with two recent genera: *Aulacus* Jurine, 1807 (83 species) and *Pristaulacus* Kieffer, 1900 (181 species) (Chen et al., 2016; Jennings et al., 2018). Both genera occur in all zoogeographic regions although *Aulacus* is unknown from the Afrotropics. Most species of this family occur in tropical and subtropical regions (Smith, 2001).

Aulacids are endoparasitoids of wood-boring larvae of Xiphydriidae (Hymenoptera), Buprestidae and Cerambycidae (Coleoptera) (Smith, 2001). Oviposition is into the host egg in the case of *Aulacus striatus* Jurine parasitizing *Xiphidrus camelus* L. Our knowledge of the taxonomy, distribution and biology of Aulacidae is unsatisfactory, because species of the family are rarely collected and not easily observed in their natural habitats. Scarcity of available material is a serious limitation for studying the fauna and the taxonomy of these wasps.

The family is distributed worldwide. Number of taxa: World – 2 genera and 264 species, Palaearctic – 2/46, Russia – 2/12.

References. Semenov, 1892, 1903; Alekseev, 1986, 1993, 1995c; Kozlov, 1988; Konishi, 1990; Smith, 2001; Polevoi, Humala, 2006; Turrisi, 2007; Humala, Polevoi, 2011; Sundukov, Lelej, 2015; Chen et al., 2016.

AULACUS Jurine, 1807 (*Aulacus* Jurine, 1801, nomen nudum; *Disphaeron* Dahlbom, 1837; *Aulacinus* Westwood, 1868; *Pammegischia* Provancher, 1882; *Disaulacinus* Kieffer, 1910; *Micraulacinus* Kieffer, 1910; *Neuraulacinus* Kieffer, 1910; *Parafoenus* Kieffer, 1910; *Pycnaulacus* Cushman, 1930). Type species: *Aulacus striatus* Jurine, 1807. Parasitoids of the Xiphydriidae larvae (Hymenoptera). Number of species: World – 83, Palaearctic – 10, Russia – 6.

Aulacus flavigenis Alekseev, 1986 (*Aulacus salicius* Sun et Sheng, 2007). Parasitoid of *Xiphydria palaeantarctica* Semenov and *X. popovi* Semenov et Guss. (Xiphydriidae). Russia: ? EP (Alekseev, 1995c), FE (KH, PR). – China (NE), Korean Peninsula.

Aulacus japonicus Konishi, 1990. Parasitoid of ? *Xiphydria alnivora* Mats. (Xiphydriidae). Russia: FE (KU). – Japan (Hon).

Aulacus jeoffreyi Alekseev, 1993 (*Aulacus jeoffreyi*: Alekseev, 1995). Russia: FE (SA).

Aulacus larisae Sundukov et Lelej, 2015. Parasitoid of ? *Xiphydria camelus* L. (Xiphydriidae). Russia: FE (PR, KU).

Aulacus striatus Jurine, 1807 (*Aulacus arcticus* Dahlbom, 1837; *A. exaratus* Ratzeburg, 1852). Parasitoid

of *Xiphydria camelus* L., *X. longicollis* Geoffr., *X. picta* Konow and *X. prolongata* Geoffr. (Xiphydriidae). Russia: EP (N, NW, C, E, S, NC, CR), UR, ES (IR, ZB). – Europe (WE, NE, SE, EE), N Africa, Kazakhstan (West), China (NC).

Aulacus uchidai Turrissi et Konishi, 2011. Parasitoid of ? *Xiphydria ogasawarai* Mats. (Xiphydriidae). Russia: FE (KU). – Japan (Hok).

PRISTAULACUS Kieffer, 1900 (*Aulacostethus* Philippi, 1873, nom. praeocc., nec Waterhouse, 1869; *Aulacostethus* Schletterer, 1890; *Deraiodontus* Bradley, 1901; *Oleiso-prister* Bradley, 1901; *Aulacostathus* Dalla Torre, 1902; *Anaulacus* Semenov, 1903, nom. praeocc., nec MacLeay, 1825; *Odontaulacus* Kieffer, 1903; *Semenowia* Kieffer, 1903, nom. praeocc., nec Weise, 1889; *Interaulacus* Bradley, 1908; *Neaulacus* Bradley, 1908; *Semenovius* Bradley, 1908; *Tropaulacus* Bradley, 1908; *Psilaaulacus* Kieffer, 1910; *Tetraulacinus* Kieffer, 1910; *Aulacites* Cockerell, 1916; *Aulacomastus* Muesebeck et Walkley, 1956; *Panaulix* Benoit, 1984; *Odontacolus* Kozlov, 1988, nom. praeocc., nec Kieffer, 1910). Type species: *Pristaulacus chlapowskii* Kieffer, 1900. Parasitoids of the larvae from the families Bostrichidae, Buprestidae, Cerambycidae, Cleridae, (Coleoptera) and ? Xiphydriidae (Hymenoptera). The genus distributed worldwide. Number of species: World – 181, Palaearctic – 36, Russia – 6.

Pristaulacus compressus (Spinola, 1808) [Aulacus] (*Aulacus obscuripennis* Westwood, 1841; *Pristaulacus schlettereri* Kieffer, 1903; *Aulacus holtzi* Schulz, 1906; *A. beckeri* Tournier, 1911, nomen nudum; *A. plurimaculatus* Tournier, 1911, nomen nudum; *A. transversostriatus* Tournier, 1911, nomen nudum). Parasitoid of *Chlorophorus* sp., *Exocentrus* sp. and *Xylotrechus* sp. (Cerambycidae), ? *Xiphydria longicollis* Geoffr. (Xiphydriidae). Russia: EP (E), UR. – Europe (WE, SE, EE), Morocco, Turkey, Syria, Iraq, Lebanon, Iran.

Pristaulacus galitae (Gribodo, 1879) [Aulacus] (*Pristaulacus bimaculatus* Kieffer, 1900; *P. immaculatus* Kieffer, 1904; *P. bimaculatus arozarenae* Ortega et Baez, 1985). Parasitoid of the beetle from the families Cerambycidae, Cleridae and Bostrichidae (Coleoptera). Russia: EP (C, NC, CR). – Europe (WE, SE, EE), N Africa, Azerbaijan, Turkey, Cyprus, Iran.

Pristaulacus gibbator (Thunberg, 1822) [Ichneumon] (*Aulacus esenbecki* Dahlbom, 1837; *A. calcaratus* Kriechbaumer, 1878; *A. sibiricola* Semenov, 1892). Parasitoid of *Palaeocallidium coriaceum* Payk. (Cerambycidae). Russia: EP (N, E), ES (TU, KR, BR, ZB), FE (AM, MG). – Europe (WE, NE, EE).

Pristaulacus gloriator (Fabricius, 1804) [Bassus] (*Aulacus flagellatus* Nees von Esenbeck, 1834; *A. erichsonii* Westwood, 1841; *A. fasciatus* Kriechbaumer, 1883; *Pristaulacus holzschuhii* Madl, 1990). Parasitoid of beetle from the families Buprestidae and Cerambycidae (Coleoptera). Russia: EP (C, E, S, NC, CR), UR, WS

(NS, AL). – Europe (WE, SE, EE), Georgia, Azerbaijan, Turkey, Iran.

Pristaulacus intermedius Uchida, 1932 (*Pristaulacus chlapowskii*: Alekseev, 1986). Parasitoid of *Chlorophorus japonicus* Chevr. and perhaps species from the genera *Amarysius*, *Clytus*, *Cyrtoclytus*, *Olenecamptus* and *Xylotrechus* (Cerambycidae). Russia: **FE** (PR). – China (NE, NC, SW), Korean Peninsula, Japan (Hok, Hon, Shi, Kyu).

Pristaulacus kostylevi (Alekseev, 1986) [*Odontaulacus*] (*Odontacolus kostylevi* Kozlov, 1988). Parasitoid of ? *Chrysobothris* sp. (Buprestidae) and ? *Clytus* sp. (Cerambycidae). Russia: **FE** (KH, PR). – Korean Peninsula.

16. FAMILY GASTERUPTIIDAE (*GASTERUPTIONIDAE*) – GASTERUPTIID WASPS, CARROT WASPS

C. VAN ACHTERBERG

A medium-sized family, of which the long and slender adults can be found near bee nests (in wood or in vertical walls) and on flowers with easily accessible nectar. The combination of the inflated hind tibia, the unarmed hind femur and the elongate propleuron (neck) makes them easy to recognise, but confusion with stout-legged Ichneumonoidea can occur. The larva consumes first the bee larva (behaving as an ectoparasitoid) and continues with the stored food (making it a “predator-inquiline”). Considering the size of some individuals it is likely that in some cases more than one larva and its food is devoured. Adult females may show interest in nests of Vespidae-Eumeninae and Crabronidae, but as yet there is no inclusive evidence that they are suitable hosts. The adults fly conspicuously in front of the bee nests with the metasoma upwards and using the hind legs for balance.

The Gasteruptiidae have a nearly worldwide distribution (but unknown from Micronesia and most of Polynesia) with more species in tropical and subtropical than in temperate areas. The family is estimated to contain ca 1500 species worldwide of which about 550 valid species are described.

Number of taxa: World – 6 genera and about 510 species, Palaearctic – 1/more than 70, Russia – 1/29.

R e f e r e n c e s. Schletterer, 1885; Semenov, 1892; Semenov-Tian-Shanskij, Kostylev, 1928; Watanabe, 1934; Hedicke, 1939; Malyshev, 1964, 1965; Oehlke, 1984; Kozlov, 1988; Alekseev, 1995a; Pagliano, Scaramozzino, 2000; Madl, 2004; Zhao et al., 2012; van Achterberg, 2013, 2019; van Achterberg, Talebi, 2014; Johansson, van Achterberg, 2016; Tan et al., 2016; van Achterberg et al., 2019b.

Subfamily GASTERUPTIINAE

GASTERUPTION Latreille, 1796 (*Foenus* Fabricius, 1798; *Gasteruptron* Westwood, 1840; *Gastrypium* Agassiz, 1846; *Faenus* Abeille de Perrin, 1879; *Gasteruption*

Schletterer, 1890; *Phoenus* Schletterer, 1890; *Gasteruptia* Dominique, 1893; *Gasteruptium* Schulz, 1906; *Rhydinofoenus* Bradley, 1909; *Dolichofoenus* Kieffer, 1910; *Trichofoenus* Kieffer, 1910; *Gastrypium* Schulz, 1911). **T y p e s p e c i e s:** *Ichneumon assectator* Linnaeus, 1758. Number of species: World – more than 450, Palaearctic – more than 70, Russia – 29

Gasteruption abeillei Kieffer, 1912 (*Trichofoenus brevirebrae* Watanabe, 1934). Russia: **EP** (N, NW, C, E, NC, CR), **UR**, **WS** (TM, KM, AL), **ES** (KR), **FE** (AM, KH, PR, SA, KU, KA, MG, CH). – Europe (WE, NE, SE, EE).

Gasteruption agrenum van Achterberg, 2014. Russia: **EP** (S, CR). – Europe (SE), Turkey, Syria, Iran.

Gasteruption assectator (Linnaeus, 1758) [*Ichneumon*] (*Gasteruption/Foenus/Faenus affectator* auct.; *Ichneumon annularis* Geoffroy in Fourcroy, 1785; *Foenus boreale* Thomson, 1883; *F. fumipennis* Thomson, 1883; *Gasteruption margotae* Madl, 1987). Russia: **EP** (N, NW, C, S, NC), **ES** (ZB), **FE** (AM, KH, PR, SA, KU). – Europe (WE, NE, SE, EE), China, Japan.

Gasteruption bicoloratum Tan et van Achterberg, 2016 (? *Gasteruption incilis* Alekseev, 1995). Russia: **FE** (AM, PR). – China.

Gasteruption brevicuspis Kieffer, 1911 (*Gasteruption terrelligerum* Enderlein, 1913). Russia: **FE** (AM, PR). – China, India, Myanmar.

Gasteruption caucasicum (Guérin-Méneville, 1844) [*Foenus*] (*Foenus pedemontanus* Tournier, 1877; *F. terrestris* Tournier, 1877; *Gasteruption trifossulatum* Kieffer, 1904; *G. ignoratum* Kieffer, 1912). Russia: **EP** (C, S, NC, CR), **UR**. – Europe (WE, NE, SE, EE), Turkey, Iran, Turkmenistan, Uzbekistan.

Gasteruption diversipes (Abeille de Perrin, 1879) [*Faenus*] (*Gasteruption distinguendum* Schletterer, 1885; *G. dusmeti* Kieffer, 1904; *G. kriechbaumeri* var. *striaticeps* Kieffer, 1904). Russia: **EP** (S, CR). – Europe (WE, SE, EE), Turkey.

Gasteruption dolichoderum Schletterer, 1889 (*Gasteruption rotundicolle* Cameron, 1907; *G. daisyi* Alekseev, 1993). Russia: **UR**. – Europe (SE, EE), Morocco, Turkey, Syria, Jordan, Israel, Iran, Turkmenistan, Tajikistan, Uzbekistan, India.

Gasteruption erythrostomum (Dahlbom, 1831) [*Foenus*] (*Foenus pyrenaicus* Guérin-Méneville, 1844; *F. mariae* Abeille de Perrin, 1879; *Gasteruption intermedium* Semenov, 1892; *Trichofoenus melanothecus* Kieffer, 1911). Russia: **EP** (NW). – Europe (WE, NE, SE, EE).

Gasteruption flavimarginatum van Achterberg, 2014. Russia: **EP** (NC). – Turkey, Jordan, Tajikistan, Uzbekistan, China.

Gasteruption freyi (Tournier, 1877) [*Foenus*] (*Foenus nigripes* Tournier, 1877; *Faenus nigripes* var. *annulata* Abeille de Perrin, 1879; *F. rugulosus* Abeille de Perrin, 1879; *Gasteruption assectator* var. *nitidulum* Schletterer, 1885; *G. kohlii* Schletterer, 1885). In nests