A review of the subfamily Tersilochinae (Hymenoptera: Ichneumonidae) from Belarus

Обзор подсемейства Tersilochinae (Hymenoptera: Ichneumonidae) Беларуси

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Fauna of the ichneumonid subfamily Tersilochinae of Belarus is reviewed. Eleven genera comprising 55 species have been recognized: *Allophroides* Horstmann (2 species), *Aneuclis* Förster (5), *Barycnemis* Förster (10), *Diaparsis* Förster (6), *Epistathmus* Förster (1), *Gelanes* Horstmann (3), *Heterocola* Förster (1), *Phradis* Förster (5), *Probles* Förster (8), *Spinolochus* Horstmann (2) and *Tersilochus* Holmgren (12). One species, *Probles dronkia* Khalaim **sp. nov.**, is described as new to science, and 42 species are recorded from Belarus for the first time increasing Belarus fauna of Tersilochinae almost 4.6 times.

Дан обзор подсемейства Tersilochinae фауны Беларуси. Выявлены 11 родов и 55 видов терзилохин: *Allophroides* Horstmann (2 вида), *Aneuclis* Förster (5), *Barycnemis* Förster (10), *Diaparsis* Förster (6), *Epistathmus* Förster (1), *Gelanes* Horstmann (3), *Heterocola* Förster (1), *Phradis* Förster (5), *Probles* Förster (8), *Spinolochus* Horstmann (2) и *Tersilochus* Holmgren (12). Описан один новый вид (*Probles dronkia* Khalaim **sp. nov.**), и 42 вида указаны для Беларуси впервые, что увеличивает фауну терзилохин Беларуси почти в 4.6 раза.

Key words: parasitoids, fauna, taxonomy, Europe, Ichneumonidae, Tersilochinae, new species, new records

Ключевые слова: паразитоиды, фауна, таксономия, Европа, Ichneumonidae, Tersilochinae, новый вид, новые находки

INTRODICTION

Tersilochinae is a moderately large ichneumonid subfamily distributed worldwide, comprising 24 genera and about 500 described species and many undescribed taxa (Yu et al., 2016; Khalaim, personal observation). The majority of tersilochines are koinobiont endoparasitoids of beetle larvae, although several taxa are known to parasitize Eriocraniidae (Lepidoptera) and sawflies of the families Xyelidae and Tenthredinidae (Hymenoptera). About 190 species of Tersilochinae belonging to 14 genera (Yu et al., 2016; Khalaim, 2016; Khalaim & Várkonyi, 2018) are currently known from Europe, and the European fauna is considered to be rather well known.

The earliest record of Tersilochinae from Belarus belongs to Meyer (1935) who mentioned a single species, *Probles microcephalus* (Gravenhorst, 1829), from Minsk. Eleven species of Tersilochinae were recorded from Belarus in several recent publications by

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the senior author (Khalaim, 2002–2016) on European fauna: *Aneuclis brevicauda* (Thomson, 1889), *Barycnemis agilis* (Holmgren, 1860), *B. gracillima* (Thomson, 1889), *B. harpura* (Schrank, 1802), *Diaparsis frontella* (Holmgren, 1860), *D. rara* (Horstmann, 1971), *Gelanes fusculus* (Holmgren, 1860), *Phradis interstitialis* (Thomson, 1889), *Ph. morionellus* (Holmgren, 1860), *Sathropterus pumilus* (Holmgren, 1860) and *Tersilochus caudatus* (Holmgren, 1860). All these records were based on scarce specimens in the collection of the Zoological Institute RAS in St Petersburg, and no special studies of Belarus Tersilochinae were ever published. Thus, the fauna of Tersilochinae of Belarus was very poorly known until now being represented by only 12 species in eight genera.

The aims of this work are to identify a large new material of Tersilochinae from several regions of Belarus, describe a new species and provide new data on distribution of Tersilochinae in this country.

MATERIAL AND METHODS

This work is based on an ichneumonid material collected by the second author in Belarus. From this material, a total of 416 specimens were selected and pinned, and thousands specimens belonging to abundant species (mainly *Barycnemis bellator*, *B. harpura*, *Probles microcephala* and *Tersilochus cognatus*) on cotton layers were looked through but neither pinned nor included to the examined material below. Almost all specimens were collected by Malaise traps in several localities of Gomel, Minsk and Vitebsk Provinces. Principal collecting sites are indicated in the map (Fig. 1):

GOMEL PROV. Polesky National Park: abandoned **Dronki** Village (A), **Khoyniki** Town (B) and abandoned **Orevichi** Village (C); Pripyat National Park, **Khvoensk** Village (D).

MINSK PROV. Krupki Distr., **Osecheno** Village (E); Vileyka Distr., **Trepalovo** (F); **Minsk**, Botanical Garden.

Fig. 1. Map of Belarus with principal collecting sites (see abbreviations in section "Material and methods").

VITEBSK PROV. Berezina Biosphere Reserve: **Domzheritsy** Village and abandoned **Postrezie** Village (G), **Gurba** (H), **Kraytsy** Village (I).

Provinces of Belarus are listed in alphabetical order in a brief form. Minsk is considered within the Minsk Province though it has a special administrative status being the capital of Belarus. References with earlier records from Belarus are provided for all species previously known from this country. General distribution of species and hosts are given mainly after the catalogue TaxaPad (Yu et al., 2016), Khalaim (2016) and Khalaim & Várkonyi (2018). Species recorded from Belarus for the first time are marked by asterisk (*).

All examined specimens including holotype and paratype of the new species are deposited at the Zoological Institute of the Russian Academy of Sciences, St Petersburg, Russia (ZIN). Morphological terminology follows that of Townes (1971) with changes according to Khalaim (2011). Layer photographs were taken in ZIN, with a Canon EOS 70D digital camera attached to an Olympus SZX10 stereomicroscope. Partly focused images were assembled with Helicon Focus 6 Pro software.

RESULTS AND TAXONOMY

Order **HYMENOPTERA**

Family **ICHNEUMONIDAE**

Subfamily **TERSILOCHINAE**

One species of the genus *Probles* Förster, 1869 is described, and a new data on distribution of 52 tersilochine species in Belarus are provided in this paper. Two species, *Diaparsis frontella* and *Phradis morionellus*, are included to the list on base of literature only and without new material. Moreover, one unidentified species of *Gelanes*, four unidentified species of *Probles* and one unidentified species of *Tersilochus* were recognized but not included to this paper.

Thus, a total of 55 species and 11 genera of Tersilochinae are known to occur in Belarus at present day. One species is described as new to science, and 42 species are recorded for the first time from this country increasing Belarus fauna of Tersilochinae almost 4.6 times.

Barycnemis harpura is the dominant tersilochine species in Belarus; it is represented by a number of specimens in the material from all collecting sites. Other abundant species are *B. bellator*, *Probles microcephala* and *Tersilochus cognatus*.

*1. *Allophroides boops* (Gravenhorst, 1829)

Material examined. **Minsk Prov.**: Osecheno, 13.IV–1.V and 4.VI.1994 (2 females). **Vitebsk Prov.**: Domzheritsy, 16.IV–7.V.1987 (1 male).

Distribution. Europe, Turkey.

*2. *Allophroides platyurus* (Strobl, 1904)

Material examined. **Minsk Prov.**: Osecheno, 13.IV–1.V.1994 (1 female).

Distribution. Europe, south of Russian Far East.

3. *Aneuclis brevicauda* (Thomson, 1889)

Khalaim, 2004b: 668 (Brest, Gomel).

Material examined. **Minsk Prov.**: Osecheno, 7.IX.2005 (1 female). **Vitebsk Prov.**: Berezina Biosphere Reserve, 23.VII–27.VIII.1991 (1 female); Domzheritsy, 22.VIII–23.IX.1988 (1 female).

Distribution. Europe, Kazakhstan, Middle Asia.

Biology. Parasitoid of *Phyllotreta nemorum* (Linnaeus, 1758) (Coleoptera: Chrysomelidae) in Europe.

*4. *Aneuclis incidens* (Thomson, 1889)

Material examined. **Gomel Prov.**: Dronki, 18.IX.1991 (1 female). **Vitebsk Prov.**: Domzheritsy, 22.VIII–23.IX.1988 (1 female).

Distribution. Madeira Islands, Europe, Caucasus, Turkey, Iran, Kazakhstan, Middle Asia, Mongolia, Siberia, south of Russian Far East.

Biology. Parasitoid of sap beetles *Meligethes aeneus* (Fabricius, 1775) and *M. viridescens* (Fabricius, 1787) (Coleoptera: Nitidulidae), pests on oilseed (winter) rape *Brassica napus* L. (Brassicaceae) in Europe.

*5. *Aneuclis maritima* (Thomson, 1889)

Material examined. **Gomel Prov.**: Dronki, 18.IX.1990 (1 female).

Distribution. Canary Islands, Europe, Caucasus, Kazakhstan, Siberia.

*6. *Aneuclis melanaria* (Holmgren, 1860)

Material examined. **Gomel Prov.**: Khvoensk, 8–27.VII.1987 (1 female). **Vitebsk Prov.**: Kraytsy, 13.IX.1983 (1 female).

Distribution. Tunisia, Europe, Caucasus, Turkey, Afghanistan, Kazakhstan, Middle Asia, Mongolia.

Biology. Parasitoid of *Ceutorhynchus pleurostigma* (Marsham, 1802) (= *assimilis* Paykull, 1792) (Coleoptera: Curculionidae) and *Psylliodes chrysocephala* (Linnaeus, 1758) (Coleoptera: Chrysomelidae) in Europe.

7. *Aneuclis pumilus* (Holmgren, 1860)

Khalaim, 2004b: 676 (Brest).

Remarks. For a long time, the species was considered in the genus *Sathroterus* Förster, but recently this genus was synonymized with *Aneuclis* Förster, 1869 (Khalaim, 2018).

Material examined. **Gomel Prov.**: Khvoensk, 8–27.VII.1987 (1 female).

Distribution. Almost cosmopolitan species, probably with European origin. Known from North Africa, Europe, Caucasus, Middle Asia, Mongolia, Siberia, south of Russian Far East, Australia, North America, Mexico, Afrotropical and Oriental regions.

8. *Barycnemis angustipennis
(Holmgren, 1860)

Material examined. **Gomel Prov.**: Dronki, 9.VII.1992 (1 female). **Vitebsk Prov.**: Berezina Biosphere Reserve, 27.VII–26.IX.1991 (1 female); Domzheritsy, 3–29.IX.1987 (2 females), 25.V–24.VI.1988 (1 female); Kraytsy, 13.IX.1983 (2 females); Postrezie, 29.IX–4.X.1987 (1 female), 31.V–15.VII.1990 (1 female), 30.V–23.VI.1991 (1 female).

Distribution. Europe, Turkey, Siberia, Russian Far East.

Biology. Parasitoid of *Byrrhys* sp. (Coleoptera: Byrrhidae) in Europe.

9. *Barycnemis bellator (Müller, 1776)

Material examined. **Gomel Prov.**: Dronki, 24.VII–28.VIII.1990 (2 females). Khoyniki, 23.VII.1991 (1 female), 21.VIII.1991 (2 females). **Vitebsk Prov.**: Berezina Biosphere Reserve, 29.VI.1989 (1 female), 30.V–26.VI.1991 (14 females, 2 males), 26.VI–23.VII.1991 (2 females), 23.VII–27.VIII.1991 (6 females); Postrezie, 4.VI–4.VII.1987 (2 females), 15–27.VII.1987 (1 female, 1 male), 16–29.VI.1989 (1 female), 28.VII–15.VIII.1989 (1 female), 26.VIII–14.IX.1989 (1 female), 31.V–15.VII.1990 (1 female), 13–26.VII.1990 (1 female), 15.VIII.1990 (5 females), 4.IX.1990 (2 females), 21.V–26.VI.1991 (1 female), 26.VI–28.VII.1991 (1 female), 23.VII–27.VIII.1991 (4 females).

Distribution. North America, Greenland, Europe, Caucasus, Kazakhstan, Middle Asia, Mongolia, Siberia, Russian Far East, South Korea, China (Ningxia).

10. *Barycnemis claviventris
(Gravenhorst, 1829)

Material examined. **Gomel Prov.**: Dronki, 9.VII.1992 (1 female); Khoyniki, 31.V–6.VII.1989 (3 females, 1 male), 23.VII.1991 (6 females), 18.IX.1991 (8 females, 4 males), 12.XI.1991 (1 female). **Vitebsk Prov.**: Postrezie, 14.X.1994 (1 female).

Distribution. ?Greenland, ?Iceland, Europe, Kazakhstan, Mongolia, Siberia, Russian Far East.

11. *Barycnemis confusa
Horstmann, 1981

Material examined. **Gomel Prov.**: Dronki, 24.VII.1990 (1 female), 4.VIII.1992 (2 females). Khoyniki, 23.VII.1991 (3 females), 28.VI.1994 (1 female). **Minsk Prov.**: Trepalovo, 7.VIII.1978 (1 female). **Vitebsk Prov.**: Domzheritsy, 4.VI–3.VII.1987 (2 females), 3–29.VII.1987 (1 female), 22.VIII–23.IX.1988 (1 female).

Distribution. North America, Europe, Mongolia, Siberia, Russian Far East.

12. *Barycnemis exhaustator
(Fabricius, 1798)

Material examined. **Vitebsk Prov.**: Berezina Biosphere Reserve, 26.V.1997 (1 female, 1 male).

Distribution. Europe, Kazakhstan.

13. *Barycnemis gracillima*
(Thomson, 1889)

Khalaim, 2004a: 55 (Gomel, Vitebsk).

Material examined. **Gomel Prov.**: Khoyniki, 23.VII–21.VIII.1991 (1 female), 12.IX.1991 (1 male); Orevichi, 21.VIII–18.IX.1992 (1 female). **Minsk Prov.**: Osecheno, 30.IX.1994 (1 female). **Vitebsk Prov.**: Domzheritsy, 4.VI–3.VII.1987 (1 female), 4.VII–1.VIII.1987 (1 female), 22.VIII–23.IX.1988 (1 female); Postrezie, 3–29.IX.1987 (7 females).

Distribution. Europe, Caucasus, Kazakhstan.

14. *Barycnemis gravipes
(Gravenhorst, 1829)

Material examined. **Minsk Prov.**: Osecheno, 5.VII.1995 (1 female). **Vitebsk Prov.**: Berezina

Biosphere Reserve, 27.VIII–26.IX.1991 (1 female).

Distribution. North America, Europe, Kazakhstan, East Siberia.

*15. *Barycnemis guttulator* (Thunberg, 1822)

Material examined. **Gomel Prov.**: Khoyniki, 21.V.1991 (4 females, 2 males), 12.XI.1991 (1 female). **Vitebsk Prov.**: Domzheritsy, 25.IV–25.V.1988 (1 female).

Distribution. Europe, Southern Siberia.

16. *Barycnemis harpura* (Schrank, 1802)

Khalaim, 2004a: 60 (neither data on provinces nor localities in Belarus).

Material examined. **Gomel Prov.**: Dronki, 24.VII–28.VIII.1990 (1 female), 4.VIII.1992 (2 females); Khoyniki, 23.VII.1991 (5 females), 12.XI.1991 (2 females); Khvoensk, 5–27.VII.1987, 1 female. **Minsk Prov.**: Minsk, Botanical Garden, 17–29.VIII.1987 (2 females), 28.IX–5.X.1987 (1 female); Osecheno, 30.VI–30.VII.1991 (1 female); Trepalovo, 7.VIII.1978 (1 female, 1 male). **Vitebsk Prov.**: Berezina Biosphere Reserve, 26.VI–23.VII.1991 (2 females), 23.VII–27.VIII.1991 (3 females), 27.VIII–26.IX.1991 (1 female); Domzheritsy, 4.VII–1.VIII.1987 (2 females), 2.VIII–3.IX.1987 (1 female), 25.V–24.VI.1988 (4 females), 24.VI–25.VII.1988 (1 female); Postrezie, 3–29.IX.1987 (3 females), 15.VIII.1990 (3 females).

Distribution. North America, Europe, Caucasus, Turkey, Kazakhstan, Mongolia, Siberia, Russian Far East, Japan.

*17. *Barycnemis finnora* Khalaim, 2018

Material examined. **Vitebsk Prov.**: Domzheritsy, 16.IV–7.V.1987 (1 female); Postrezie, 16.IV–7.V.1987 (2 females, 1 male).

Distribution. Europe: Norway (north), Finland (north), Belarus.

*18. *Diaparsis* (*Diaparsis*) *carinifer* (Thomson, 1889)

Material examined. **Gomel Prov.**: Dronki, 24.VII.1990, 9.VII.1992 (2 females); Khvoensk, 9.VI–7.VII.1987 (1 female). **Vitebsk Prov.**: Domzheritsy, 4.VI–3.VII.1987 (2 females), 4.VII–1.VIII.1987 (1 female), 25.V–24.VI.1988 (1 female).

Distribution. Europe, Turkey, Jordan, Iran, Middle Asia, south of Russian Far East, South Korea.

Biology. Important biological control agent of the cereal leaf beetle *Oulema melanopus* (Linnaeus, 1758) (Coleoptera: Chrysomelidae) in Europe.

*19. *Diaparsis* (*Diaparsis*) *nutritor* (Fabricius, 1804)

Material examined. **Vitebsk Prov.**: Domzheritsy, 24.VI–25.VII.1988 (1 female).

Distribution. Europe, Caucasus, Turkey.

20. *Diaparsis* (*Diaparsis*) *rara* (Horstmann, 1971)

Khalaim, 2005: 422 (Brest, Gomel).

Material examined. **Gomel Prov.**: Dronki, 28.VIII and 18.IX.1990 (2 females).

Distribution. Europe, Caucasus, Turkey, Kazakhstan, Southern Siberia, south of Russian Far East, China.

*21. *Diaparsis* (*Ischnobatis*) *stramineipes* (Brischke, 1880)

Material examined. **Gomel Prov.**: Dronki, 19.VI–24.VII.1990 (1 female).

Distribution. Europe, Kazakhstan, Southern Siberia, south of Russian Far East.

Biology. The species was reared from galls of *Pontania proxima* (Audinet-Serville, 1823) (Hymenoptera: Tenthredinidae) on willows in Europe; reported as a parasitoid of this sawfly as well as its inquiline weevil *Archarius salicivorus* (Paykull, 1792) (Coleoptera: Curculionidae).

*22. *Diaparsis* (*Nanodiaparsis*) *aperta* (Thomson, 1889)

Material examined. **Minsk Prov.**: Krupki, 30.VI.1991 (1 male); Osecheno, 4.VII.1993 (1 female).

Distribution. Europe, Caucasus, Turkey, Iran, Middle Asia.

Biology. Parasitoid of *Anthaxia tuerki* Ganglbauer, 1886 (Coleoptera: Buprestidae) in Europe.

23. *Diaparsis* (*Nanodiaparsis*) *frontella* (Holmgren, 1860)

Khalaim, 2002a: 388 (Brest, Gomel).

Distribution. Europe, Caucasus, Turkey, Kazakhstan, Southern Siberia.

Biology. Parasitoid of *Scolytus rugulosus* (Müller, 1818) (Coleoptera: Curculionidae) in Europe.

24. *Epistathmus crassicornis Horstmann, 1971

Material examined. **Gomel Prov.**: Khvoensk, 8–27.VII.1987 (1 male). **Vitebsk Prov.**: Gurba, 24.VI–25.VII.1988 (1 male); Postrezie, 2.VIII–3.IX.1987 (1 female), 13–26.VII.1990 (1 male), 15.VIII.1990 (1 male), 26.VI–23.VII.1991 (1 male).

Distribution. Europe, Caucasus, Siberia, south of Russian Far East.

25. *Gelanes cuspidatus Khalaim, 2002

Material examined. **Gomel Prov.**: Dronki, 22.IV–26.V.1992 (2 males). **Vitebsk Prov.**: Berezina Biosphere Reserve, 1.VI.1994 (1 female).

Distribution. Europe, south of Russian Far East, China (Liaoning), South Korea, Japan.

Biology. Parasitoid of *Xyela alpigena* (Strobl, 1895) (Hymenoptera: Xyelidae) on *Pinus cembra* L. (Pinaceae) in Europe.

26. *Gelanes fusculus* (Holmgren, 1860)

Khalaim, 2002b: 11 (?Vitebsk).

Material examined. **Minsk Prov.**: Minsk, Botanical Garden, 2–8.VI.1987 (2 females).

Distribution. Europe, Turkey, Kazakhstan, Southern Siberia, south of Russian Far East.

Biology. Parasitoid of *Xyela obscura* (Strobl, 1895) (Hymenoptera: Xyelidae) on *Pinus mugo* Turra (Pinaceae), *X. julii* (Brébisson, 1818) on *P. sylvestris* L. and probably *X. alpigena* (Strobl, 1895) on *P. cembra* in Europe.

27. *Gelanes simillimus Horstmann, 1981

Material examined. **Vitebsk Prov.**: Berezina Biosphere Reserve, 6–30.V.1991 (1 female).

Distribution. Europe, Turkey, Southern Siberia, south of Russian Far East, South Korea.

Biology. Parasitoid of *Xyela julii* (Brébisson, 1818) (Hymenoptera: Xyelidae) on *Pinus sylvestris* (Pinaceae); collected also from *P. halepensis* Mill. in Europe.

28. *Heterocola proboscidalis (Thomson, 1889)

Material examined. **Minsk Prov.**: Minsk, Botanical Garden, 19–26.V.1987 (1 male), 2–8.VI.1987 (1 female); Osecheno, 1.V–4.VI.1989 (2 females).

Distribution. ?North Africa, Europe, Kazakhstan, Mongolia, Siberia, south of Russian Far East.

29. *Phradis brevicornis Horstmann, 1971

Material examined. **Vitebsk Prov.**: Domzheritsy, 4.VI–3.VII.1987 (1 female), 25.V–24.VI.1988 (3 females).

Distribution. Europe, Kazakhstan, Siberia, Russian Far East.

30. *Phradis brevis (Brischke, 1880)

Material examined. **Gomel Prov.**: Dronki, 22.V.1990, 19.VI.1990, 25.V.1991 (3 females); Khvoensk, 17.V–9.VI.1987 (1 female). **Minsk Prov.**: Osecheno, 29.VII.1993 (1 female). **Vitebsk Prov.**: Domzheritsy, 4.VI–3.VII.1987 (1 female); Postrezie, 26.VI.1991 (1 female).

Distribution. Europe, Caucasus, Turkey, Kazakhstan, Mongolia, Siberia, Russian Far East.

Biology. Parasitoid of *Meligethes difficilis* (Heer, 1841) (Coleoptera: Nitidulidae) on rape in Europe.

31. *Phradis interstitialis* (Thomson, 1889)

Khalaim et al., 2009: 112 (Minsk). Khalaim, 2016: 264 (Minsk).

Material examined. **Vitebsk Prov.**: Berezina Biosphere Reserve, 6–30.V.1991 (1 female).

Distribution. Europe, Caucasus, Middle Asia.

Biology. Parasitoid of several *Meligethes* species (Coleoptera: Nitidulidae) on rape in Europe.

32. *Phradis morionellus*
(Holmgren, 1860)

Khalaim et al., 2009: 116 (Brest, ?Minsk).

Distribution. Tunisia, Europe, Caucasus, Turkey, Kazakhstan, Middle Asia, Siberia, south of Russian Far East.

Biology. Parasitoid of several *Meligethes* species (Coleoptera: Nitidulidae) on rape in Europe.

33. *Phradis polonicus Horstmann, 1981

Material examined. **Vitebsk Prov.**: Berezina Biosphere Reserve, 2.VI.1989 (1 female).

Distribution. Europe, Russian Far East.

34. *Probles* (*Euporizon*) *dronkia*
Khalaim, **sp. nov.**
(Figs 2–12)

Holotype. Female; **Belarus**, *Gomel Prov.*, Polesky National Park, Khoyniki Distr., Dronki, 26.X.1990, coll. A.M. Tereshkin (ZIN).

Paratype. Same data as for holotype, but 26.V–9.VII.1992, 1 female (ZIN).

Etymology. The species is named after its type locality, Dronki Village.

Comparative diagnosis. The new species is similar to *P. gilvipes* (Gravenhorst, 1829) as both have a robust antennal flagellum, granulate temple, finely punctate on smooth background mesopleuron, entirely striate laterally petiole of the first metasomal segment, and long ovipositor. In the key to European species of *Euporizon* (Horstmann, 1981: 33), *P. dronkia* **sp. nov.** runs to *P. gilvipes* but differs from this species by its extremely long ovipositor with sheath 4.3–4.5 times as long as first tergite (about 2.5 times in *P. gilvipes*).

Remarks. Horstmann (1971: 91) mentioned forma "longicauda" of *P. gilvipes* from Central Sweden and South England with ovipositor sheath 3.1–3.5 times as long as first tergite; it is longer than in typical *P. gilvipes* (2.5) but distinctly shorter than in *P. dronkia* (4.3–4.5). Taxonomic status of this form is unknown yet.

Description. Female. Body length 4.9 mm. Fore wing length 3.8 mm.

Head rounded behind eyes in dorsal view; temple 0.7 times as long as eye width (Fig. 4). Clypeus about 2.8 times as broad as high, convex in lateral view, separated from face by thin and sharp groove, with lower margin laterally impressed on each side, without transverse ridge, smooth and shining, with scattered punctures in its upper part (Fig. 5). Mandible weakly tapered towards apex, with upper tooth distinctly longer than the lower (Fig. 5). Malar space about 0.7 times as long as basal mandibular width. Antennal flagellum slightly tapered towards apex, with 13 flagellomeres (Fig. 3); flagellomeres 3–5 about 1.6 times as long as broad; subapical flagellomeres 1.3–1.4 times as long as broad. Face, frons, vertex and temple granulate and dull; face and frons finely punctate (Fig. 5); vertex and temple with very fine and sparse punctures (Figs 4, 8). Occipital carina complete.

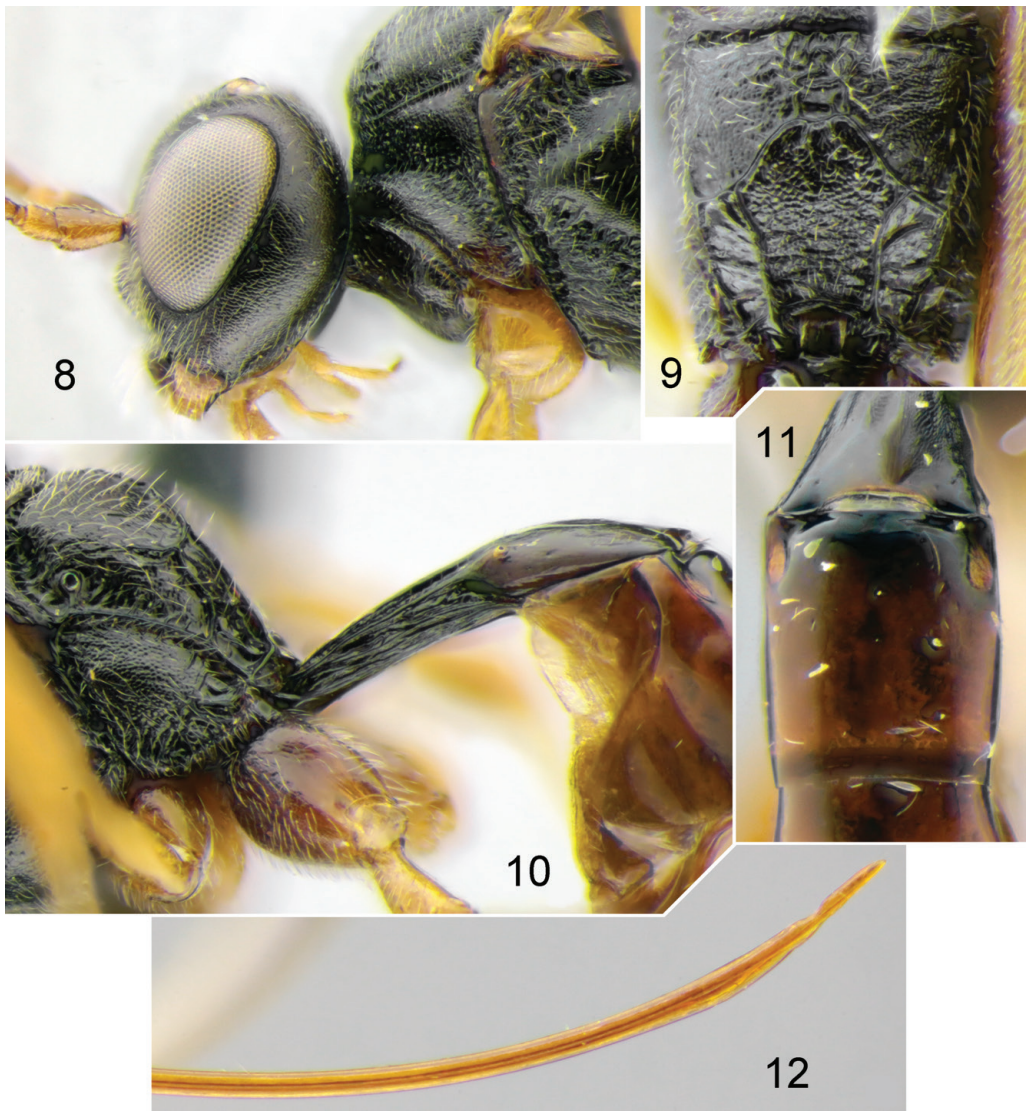
Mesosoma predominantly granulate and dull (Figs 6, 7); mesopleuron centrally (above foveate groove) and dorsolateral areas of propodeum centrally smooth or with very shallow granulation, shining; mesoscutum, scutellum and mesopleuron centrally finely punctate. Notaulus distinctly impressed, with irregular wrinkles (Fig. 6). Foveate groove of mesopleuron long, broad and deep, upcurved anteriorly, not reaching neither front nor hind edge of mesopleuron, with coarse transverse wrinkles (Fig. 7). Basal area of propodeum rectangular, broad, 1.3–1.5 times as long as broad and 0.5 times as long as apical area, with lateral margins

Figs 2–7. *Probles dronkia* **sp. nov.** 2, body, lateral view; 3, antenna, lateral view; 4, head, dorsal view; 5, head, anterior view; 6, head and mesosoma, dorsolateral view; 7, mesopleuron, ventrolateral view.

indistinct because of irregular wrinkles (Fig. 9). Propodeal spiracle separated from pleural carina by 1.5 times diameter of spiracle (Fig. 10). Apical area flat, truncated anteriorly, with transverse wrinkles posteriorly; apical longitudinal carinae complete, reaching transverse carina anteriorly. Fore wing with second recurrent vein postfurcal; hind wing with nervellus vertical. Legs slender.

First metasomal tergite 2.15 times as long as posteriorly broad; petiole strongly longitudinally striate laterally before glymma (Fig. 10). Glymma distinct, situated slightly behind center of first tergite and joining by distinct furrow to ventral part of postpetiole (Fig. 10). Second tergite 1.2 times as long as anteriorly broad. Thyridial depression about 2.5 times as long as broad. Ovipositor very long, slender, weakly upcurved, with weak dorsal subapical depression (Fig. 12); sheath 4.3–4.5 times as long as first tergite.

Head, mesosoma and first metasomal tergite black; lower 0.4 of clypeus, mandibular teeth, lower corner of pronotum, and postpetiole of first metasomal tergite dark reddish brown; mouthparts, mandible (except teeth) and tegula yellow or brownish yellow. Antenna brown, pale yel-



Figs 8–12. *Probles dronkia* **sp. nov.** 8, head and anterior part of mesosoma, lateral view; 9, propodeum, dorsal view; 10, posterior part of mesosoma and first tergite, lateral view; 11, second tergite, dorsal view; 12, apex of ovipositor, lateral view.

lowish brown basally. Pterostigma brown. Legs yellowish brown; fore and mid coxae slightly darkened with brown at extreme base; hind coxa brownish black basally to brown apically. Metasoma behind first segment yellowish brown ventrally to brown dorsally; dorsal side of second tergite anteriorly blackish.

Male unknown.

Distribution. Belarus.

35. *Probles* (*Euporizon*) *montana Horstmann, 1971

Material examined. **Vitebsk Prov.**: Berezina Biosphere Reserve, 26.VIII.1989 (1 female), 26.VI–23.VII.1991 (4 females), 23.VII.1991 (1 female); Domzheritsy, 25.V–24.VI.1988 (1 female); Postrezie, 16–29.VI.1989 (1 female), 31.V–15.VII.1990 (1 female), 19.IX.1990 (3 females), 26.VI–28.VII.1991 (2 females), 30.VI.1994 (3 females).

Distribution. Europe.

36. *Probles* (*Euporizon*) *truncorum (Holmgren, 1860)

Material examined. **Gomel Prov.**: Dronki, 19.VI–24.VII.1990 (1 female), 26.V–9.VII.1992 (1 female). **Vitebsk Prov.**: Berezina Biosphere Reserve, 26.VI–23.VII.1991 (12 females); Postrezie, 29.VI–13.VII.1990 (2 females), 26.VI–28.VII.1991 (10 females), 19.VII.1994 (4 females).

Distribution. Europe.

37. *Probles* (*Euporizon*) *xanthopa (Holmgren, 1860)

Material examined. **Gomel Prov.**: Dronki, 26.X.1990 (3 females).

Distribution. Europe.

38. *Probles* (*Microdiaparsis*) *microcephala* (Gravenhorst, 1829)

Meyer, 1935: 454 (Minsk).

Material examined. **Gomel Prov.**: Dronki, 4.VIII.1992 (1 female); Khoyniki, 10.X.1989 (1 female), 23.VII.1991 (3 females), 21.VIII.1991 (2 females), 18.IX.1991 (2 females), 12.XI.1991 (1 female). **Minsk Prov.**: Minsk, Botanical Garden, 29.VI–6.VII.1987 (1 female), 28.IX–5.X.1987 (1 female). **Vitebsk Prov.**: Domzheritsy, 2.VIII–3.IX.1987 (1 female); Postrezie, 17.IX–1.X.1986 (1 female), 4.VI–4.VII.1987 (10 females, 1 male), 26.VI–28.VII.1991 (1 female), 14.X.1994 (1 female).

Distribution. Europe, Turkey, Iran.

39. *Probles* (*Microdiaparsis*) *neoversuta (Horstmann, 1967)

Material examined. **Gomel Prov.**: Dronki, 6.X.1992 (5 females), 24.VII–28.VIII.1990 (2 females), 18.IX.1990 (3 females), 26.X.1990 (2 females), 18.IX.1991 (3 females); Khoyniki, 21.VIII–18.IX.1991 (1 female), 6.X.1992 (1 female). **Minsk Prov.**: Osecheno, 29.VIII.1991 (1 female). **Vitebsk Prov.**: Domzheritsy, 3–29.IX.1987 (4 females).

Distribution. Europe, Turkey, south of Russian Far East.

40. *Probles* (*Microdiaparsis*) *versuta (Holmgren, 1860)

Material examined. **Gomel Prov.**: Khoyniki, 21.V–16.VI.1991 (1 female). **Minsk Prov.**: Osecheno, 11.IV–2.V.1991 (1 female). **Vitebsk Prov.**: Domzheritsy, 8.V–3.VI.1987 (1 female).

Distribution. Europe, Turkey, south of Russian Far East.

41. *Probles* (*Probles*) *flavipes (Szépligeti, 1899)

Material examined. **Vitebsk Prov.**: Berezina Biosphere Reserve, 26.VI–23.VII.1991 (1 female); Postrezie, 16–29.VI.1989 (1 female), 29.VI–13.VII.1990 (1 female), 6–23.VII.1991 (1 female), 30.VI.1994 (1 female), 19.VII.1994 (1 female).

Distribution. Europe, Turkey.

42. *Spinolochus agilis* (Holmgren, 1860)

Khalaim, 2004a: 52 (Brest).

Material examined. **Gomel Prov.**: Dronki, 4.VIII.1992 (1 female). **Vitebsk Prov.**: Berezina Biosphere Reserve, 26.VI–23.VII.1991 (2 females); Domzheritsy, 25.V–24.VI.1988 (2 females), 24.VI–25.VII.1988 (1 female); Postrezie, 3–29.IX.1987 (1 female), 13–26.VII.1990 (1 female), 4.IX.1990 (3 females), 26.VI–28.VII.1991 (1 female), 23.VII–27.VIII.1991 (2 females).

Distribution. North America, Europe, Middle Asia, Mongolia, Siberia, Russian Far East.

43. *Spinolochus laevifrons (Holmgren, 1860)

Material examined. **Gomel Prov.**: Khoyniki, 23.VII.1991 (2 females), 18.IX.1991 (1 male), 12.XI.1991 (1 female). **Vitebsk Prov.**: Kraytsy, 13.IX.1983, 1 female; Postrezie, 15.VIII.1990, 23.VII–27.VIII.1991 (2 females).

Distribution. North America, Europe, Middle Asia, south of Russian Far East, Japan.

44. *Tersilochus* (*Gonolochus*) *caudatus* (Holmgren, 1860)

Khalaim, 2016: 268 (Vitebsk).

Material examined. **Gomel Prov.**: Khvoensk, 17.V–9.VI.1987 (4 females). **Minsk Prov.**: Minsk, Botanical Garden, 29.VI–6.VII.1987 (1 female), 28.IX–5.X.1987 (1 female); Osecheno, 30.VI.1991 (2 females), 4.VI.1994 (1 male).

Distribution. Europe, Turkey, Siberia, Russian Far East, South Korea.

45. *Tersilochus* (*Pectinolochus*) *coeliodicola (Silvestri, 1917)

Material examined. **Minsk Prov.**: Osecheno, 30.IX.1994 (1 female).

Distribution. Europe, the Urals, Mongolia, south of Russian Far East.

Biology. Parasitoid of *Coeliodes ruber* (Marsham, 1802) (Coleoptera: Curculionidae) in Europe.

46. *Tersilochus* (*Pectinolochus*) *lapponicus Hellén, 1958

Material examined. **Minsk Prov.**: Osecheno, 27.V.1991 (4 females), 4.VI.1994 (6 females).

Distribution. Europe.

47. *Tersilochus* (*Pectinolochus*) *striola (Thomson, 1889)

Material examined. **Vitebsk Prov.**: Berezina Biosphere Reserve, 1.VI.1994 (1 female).

Distribution. North America, Europe, Iran, Siberia, Russian Far East.

48. *Tersilochus* (*Pectinolochus*) *terebrator Horstmann, 1971

Material examined. **Minsk Prov.**: Osecheno, 13.IV–1.V.1994 (2 females), 4.VI.1994 (1 female).

Distribution. Europe, Russian Far East.

49. *Tersilochus* (*Tersilochus*) *cognatus Holmgren, 1860

Material examined. **Gomel Prov.**: Dronki, 21.V.1991 (1 female), 22.V.1990 (3 females), 22.IV–26.V.1992 (1 female), 9.VII.1992 (10 females, 1 male); Khoyniki, 22.IV–26.V.1992 (20 females), 20.VI.1994 (1 female); Khvoensk, 17.V–9.VI.1987 (2 females), 9.VI–7.VII.1987 (2 females); Orevichi, 21.V–18.VI.1991 (2 females), 22.IV–26.V.1992 (1 female, 1 male). **Minsk Prov.**: Minsk, Botanical Garden, 19–26.V.1987 (1 female), 30.V–16.VI.2003 (1 female); Osecheno, 1.V–4.VI.1989 (2 females), 27.V.1991 (1 female), 30.VI.1991 (6 females, 1 male), 4.VI.1994 (1 female), 14.IV–4.V.1995 (1 female), 10.V.2005 (1 female). **Vitebsk Prov.**: Domzheritsy, 8.V–3.VI.1987 (1 female), 25.IV–25.V.1988 (4 females); Berezina Biosphere Reserve, 7.VII.1987 (1 female); Postrezie, 26.VI.1991 (1 female).

Distribution. Europe, Turkey.

50. *Tersilochus* (*Tersilochus*) *longicornis (Thomson, 1889)

Material examined. **Minsk Prov.**: Osecheno, 30.VI.1991 (3 females).

Distribution. Europe.

51. *Tersilochus* (*Tersilochus*) *microgaster (Szépligeti, 1899)

Material examined. **Minsk Prov.**: Osecheno, 4.VI.1994 (1 female).

Distribution. Europe.

Biology. Parasitoid of *Psylliodes chrysocephala* (Coleoptera: Chrysomelidae), a stem-mining pest of oilseed rape in Europe.

52. *Tersilochus* (*Tersilochus*) *nitidipleuris Horstmann, 1971

Material examined. **Gomel Prov.**: Dronki, 22.IV–26.V.1992, 6 females; Khoyniki, 22.IV–26.V.1992, 2 females; Orevichi, 22.IV–26.V.1992, 4 females. **Minsk Prov.**: Osecheno, 27.V.1991 (1 female), 13.IV–1.V.1994 (7 females). **Vitebsk Prov.**: Domzheritsy, 8.V–3.VI.1987 (1 female), 25.IV–25.V.1988 (2 females).

Distribution. Europe.

53. *Tersilochus* (*Tersilochus*) *obscurator (Aubert, 1959)

Material examined. **Gomel Prov.**: Khoyniki, 22.IV–26.V.1992 (1 female). **Minsk Prov.**: Osecheno, 14.IV–4.V.1995 (1 female).

Distribution. Europe, Turkey.

Biology. Parasitoid of *Ceutorhynchus pallidactylus* (Marsham, 1802) (= *quadridens* Panzer, 1795) (Coleoptera: Curculionidae), a stem-mining pest of oilseed rape in Europe.

54. *Tersilochus* (*Tersilochus*) *triangularis (Gravenhorst, 1807)

Material examined. **Gomel Prov.**: Dronki, 21.V.1991 (2 females), 9.VII.1992 (3 females); Khoyniki, 22.IV–26.V.1992 (1 female). **Minsk**

Prov.: Osecheno, 1.V–4.VI.1989 (1 female), 4.VI.1994 (2 females).

Distribution. Europe, Turkey.

Biology. Parasitoid of *Ceutorhynchus* spp. (Coleoptera: Curculionidae) in Europe.

*55. *Tersilochus* (*Tersilochus*) *tripartitus* (Brischke, 1880)

Material examined. **Gomel Prov.**: Khvoensk, 17.V–9.VI.1987 (6 females). **Minsk Prov.**: Osecheno, 1.V–4.VI.1989, 30.VI.1991, 4.VI.1994 (3 females).

Distribution. Europe, Turkey.

Biology. Parasitoid of *Psylliodes chrysocephala* (Coleoptera: Chrysomelidae) in Europe.

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