

On the knowledge of the subfamily Braconinae (Hymenoptera: Braconidae) of Russia

K.G. Samartsev

К познанию подсемейства Braconinae (Hymenoptera: Braconidae) России

К.Г. Самарцев

Zoological Institute RAS, St Petersburg 199034, Russia. E-mail: k.samartsev@gmail.com
Зоологический институт РАН, Санкт-Петербург 199034, Россия

Abstract. Taxonomic and faunistic notes on the species of the subfamily Braconinae distributed in Russia and Palaearctic region are presented. The following new combinations are proposed: *Acampyloneurus abnormis* (Belokobylskij, 2000), **comb. nov.**, *A. bohayicus* (Belokobylskij, 2000), **comb. nov.**, *A. penini* (Belokobylskij, 2000), **comb. nov.**, *Craspedolcus kurentzovi* (Belokobylskij, 1986), **comb. nov.**, and *Gelasinobracon* (*Pappobracon*) *nodulosus* (Papp, 1998), **comb. nov.**. Elevated from synonymy: *Bracon* (*Bracon*) *crocatus* Schmiedeknecht, 1897, **stat. resurr.**, *B. indubius* Szépligeti, 1901, **stat. resurr.**, *B. (B.) laticeps* Telenga, 1936, **stat. resurr.**, *B. (B.) lencoranus* Telenga, 1936, **stat. resurr.**, *B. (B.) persimilis* Telenga, 1936, **stat. resurr.**, and *B. (Habrobracon) nigricans* (Szépligeti, 1901), **stat. resurr.**. The following new synonyms are proposed: *Bracon depressiusculus* Szépligeti, 1904, **syn. nov.**, *B. kiritshenkoi* Telenga, 1936, **syn. nov.**, *B. neglectus* Szépligeti, 1904, **syn. nov.**, *B. procerus* Papp, 1965, **syn. nov.**, *B. rugulosus* Szépligeti, 1901, **syn. nov.** and *B. spurnensis* Hincks, 1951, **syn. nov.** [= *Bracon* (*Bracon*) *subcylindricus* Wesmael, 1838]; *B. kachetinus* Telenga, 1933, **syn. nov.** and *B. maslovskii* Telenga, 1936, **syn. nov.** [= *B. (B.) immutator* Nees, 1834]; *B. lautus* Szépligeti, 1901, **syn. nov.** and *B. semirugosus* Szépligeti, 1901, **syn. nov.** [= *B. (B.) fumigidus* Szépligeti, 1901]; *B. moczari* Papp, 1969, **syn. nov.** [= *B. (B.) laticeps* Telenga, 1936, **stat. resurr.**]; *B. planinotus* Tobias, 1957, **syn. nov.** [= *B. (B.) longulus* Thomson, 1892]; *Bracon bitumor* Papp, 2018, **syn. nov.** and *Bracon planitibiae* Yang, Cao et Gould, 2019, **syn. nov.** [= *Doggerella chasanica* (Tobias, 2000)]. Lectotypes are designated for *Habrobracon mongolicus* Telenga, 1936, *Bracon kachetinus* Telenga, 1933, *B. laticeps* Telenga, 1936, *B. lencoranus* Telenga, 1936 and *B. persimilis* Telenga, 1936. Some erroneous distribution records of Braconinae found in literature are corrected.

Key words. Taxonomy, fauna, new synonymy, new combination, new status.

Резюме. Представлены таксономические и фаунистические замечания по видам подсемейства Braconinae, распространенным на территории России и Палеарктики. Предложены новые комбинации для следующих таксонов: *Acampyloneurus abnormis* (Belokobylskij, 2000), **comb. nov.**, *A. bohayicus* (Belokobylskij, 2000), **comb. nov.**, *A. penini* (Belokobylskij, 2000), **comb. nov.**, *Craspedolcus kurentzovi* (Belokobylskij, 1986), **comb. nov.**, и *Gelasinobracon* (*Pappobracon*) *nodulosus* (Papp, 1998) **comb. nov.**. Восстановлены из синонимов: *Bracon* (*Bracon*) *crocatus* Schmiedeknecht, 1897, **stat. resurr.**, *B. indubius* Szépligeti, 1901, **stat. resurr.**, *B. (B.) laticeps* Telenga, 1936, **stat. resurr.**, *B. (B.) persimilis* Telenga, 1936, **stat. resurr.** и *B. (Habrobracon) nigricans* (Szépligeti,

1901), **stat. resurr.** Предложены новые синонимы: *Bracon depressiusculus* Szépligeti, 1904, **syn. nov.**, *B. kiritshenkoi* Telenga, 1936, **syn. nov.**, *B. neglectus* Szépligeti, 1904, **syn. nov.**, *B. procerus* Papp, 1965, **syn. nov.**, *B. rugulosus* Szépligeti, 1901, **syn. nov.** и *B. spurnensis* Hincks, 1951, **syn. nov.** [= *Bracon (Bracon) subcylindricus* Wesmael, 1838]; *B. kachetinus* Telenga, 1933, **syn. nov.** и *B. maslovskii* Telenga, 1936, **syn. nov.** [= *B. (B.) immutator* Nees, 1834]; *B. laetus* Szépligeti, 1901, **syn. nov.** и *B. semirugosus* Szépligeti, 1901, **syn. nov.** [= *B. (B.) fumigidus* Szépligeti, 1901]; *B. moczari* Papp, 1969, **syn. nov.** [= *B. (B.) laticeps* Telenga, 1936, **stat. resurr.**]; *B. planinotus* Tobias, 1957, **syn. nov.** [= *B. (B.) longulus* Thomson, 1892]; *Bracon bitumor* Papp, 2018, **syn. nov.** и *Bracon planitibiae* Yang, Cao et Gould, 2019, **syn. nov.** [= *Doggerella chasanica* (Tobias, 2000)]. Обозначены лектотипы *Habrobracon mongolicus* Telenga, 1936, *Bracon kachetinus* Telenga, 1933, *B. laticeps* Telenga, 1936, *B. lencoramus* Telenga, 1936 и *B. persimilis* Telenga, 1936. Приведены и исправлены ошибочные литературные данные по распространению наездников-браконин.

Key words. Систематика, фауна, новые синонимы, новые комбинации, новые статусы.

Introduction

The subfamily Braconinae is relatively well studied on the territory of Russia, but some decades have passed since the publication of the major summaries of its fauna (Tobias et al., 1986; Belokobylskij, Tobias, 2000). After recently published partial revisions of the Western Palaearctic species of the genus *Bracon* Fabricius, 1804 (Papp, 1999, 2004, 2005, 2008a, 2008b, 2012) it is required to reclassify a number of taxa described from the territory of USSR which relationships with the European species were considered on the basis of outdated taxon concepts. In addition, the specialists who studied the Palaearctic fauna of Braconinae (relatively poor in genera) mostly were not familiar with the much more diverse tropical taxa. Examination of the type material from both non-Palaearctic and Palaearctic taxa has shown that a number of species need transferring to other genera, previously known only from the tropics.

In the current article, some refinements are given in order to update the knowledge on fauna of the Braconinae of the Palaearctic region in connection with the publication of the catalogue of the parasitoid Hymenoptera of Russia (Belokobylskij et al., 2019).

Material and methods

Morphological nomenclature follows Quicke (1987) and van Achterberg (1993) with some additions (Samartsev, 2018). Abbreviations of morphological terms: Od – maximum diameter of lateral ocellus; OOL – ocular-ocellar distance; POL – postocellar distance.

Museum acronyms:

AEI – American Entomological Institute, Utah State University (Logan, USA);

HNHM – Hungarian Natural History Museum (Budapest, Hungary);

IRSNB – Institut Royal des Sciences Naturelles de Belgique (Brussels, Belgium);

MZLU – Museum of Biology (Entomology), Lund University (Lund, Sweden);

ZISP – Zoological Institute of the Russian Academy of Sciences (Saint Petersburg, Russia);

ZMB – Museum für Naturkunde (Berlin, Germany).

Material on related species used in diagnoses of considering taxa:

Bracon (Bracon) dolichurus Marshall, 1897. FRANCE (HNHM). Sainte-Baume, 1 female (paralectotype) (F. Lombart) [“Hym. Typ. No. 10552, Museum Budapest”]. RUSSIA (ZISP). Saratov Province: Khvalynsky National Park, steppe, 1 female, 31.VII–2.VIII.2004 (V. Krivokhatsky, O. Ovchinnikova); near Dyakovka, meadow on sand near forest, 1 female, 26.VI.2012 (K. Samartsev).

Bracon (Bracon) pineti Thomson, 1892. GERMANY (HNHM). 1 female (paralectotype), Munich, 19.V.1884 [“Germania, München, Pasing, 19.V.1884”, “aus Fichtenzapfen”, “Paralectotypus *Bracon pineti* sp. n. Thomson 1894. / des. Pap J. 1973”, “Hym. Typ. No. 11536, Museum Budapest”; “*Bracon (Glabrobr.) pineti* Ths. det. Papp J. 2000/ 29”]. RUSSIA (ZISP). Samara Province: 6 km NE of Belovka, near Kutulukskoe storage pond, oak forest, 1 female, 31.VII.2010 (K. Samartsev).

Bracon (Bracon) trypanophorus Marshall, 1897. RUSSIA (ZISP). Samara Province: Bezenchuk, 1 female, 24.VI.2012 (K. Samartsev). Saratov Province: near Dyakovka, 5 females, 9 males, 26.VI.2012 (K. Samartsev), same locality, 1 male, 27.VI.2012 (D. Astakhov). Volgograd Province: SE of Baybayov, meadow, 1 female, 15.VI.2012 (K. Samartsev).

Gelasinibracon (Gelasinibracon) sedlaceki Quicke, 1989. PAPUA NEW GUINEA (AEI). 1 female (paratype; Figs 132, 134, 135, 138, 139, 142, 143, 146, 148) [“Wau, N. Guinea, 1250 m., II.13–III.13. [19]79, J. Sedlacek”, “Paratype *Gelasinibracon sedlaceki* Quicke, 1989”].

Gelasinibracon (Gelasinibracon) simplicicaudatus Quicke, 1989. PAPUA NEW GUINEA (AEI). 1 female (paratype; Figs 133, 136, 137, 140, 141, 144, 145, 147, 149, 150) [“Bulolo, N. Guinea, II.13–III.13. [19]79, 900m. J. Sedlacek”, “Paratype *Gelasinibracon simplicicaudatus* Quicke, 1989”].

Results

Acampyloneurus van Achterberg, 1992

Acampyloneurus van Achterberg, 1992: 392; Chen and Yang, 2006: 214.

Type species: *Campyloneurus aruensis* Shenefelt, 1978.

A medium-size worldwide genus *Cyanopterus* requires revision and further elaboration of the diagnosis. Three species described in *Cyanopterus* from the Russian Far East here are transferred to the genus *Acampyloneurus*. The latter genus may be easily separated from *Cyanopterus* by the absence of diverging sublateral impressions and presence of converging sublateral impressions on second metasomal tergite (in *Cyanopterus*, the diverging sublateral impressions are presented and the converging sublateral impressions are absent).

Key to the Palaearctic and Oriental species of *Acampyloneurus*

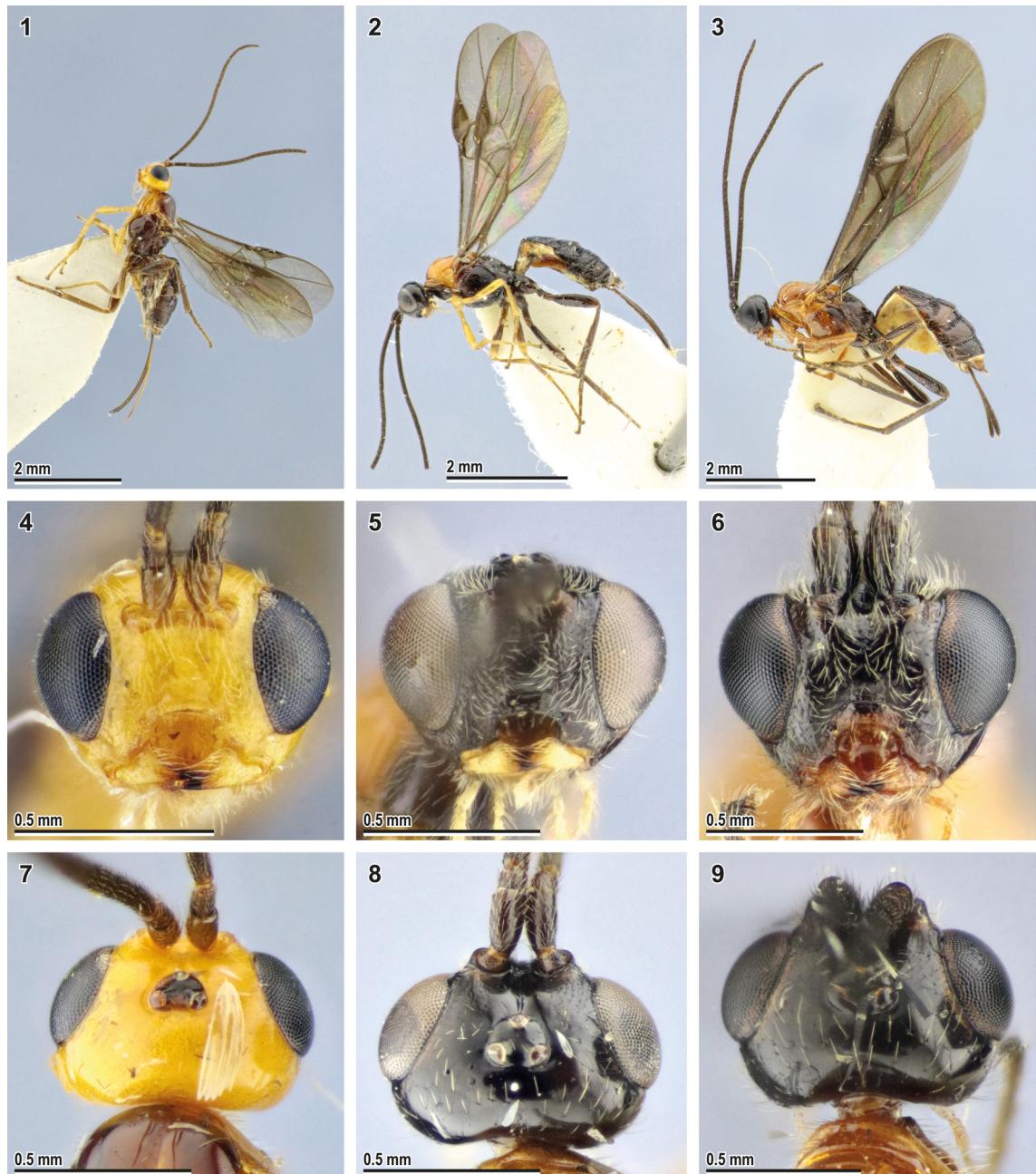
1. Face width about 0.8 times combined height of face and clypeus (Photo 1 in Chen, Yang, 2006: 261). Median area of second metasomal tergite in form of small short triangle extending into long mid-longitudinal carina posteriorly; third tergite rugose (Photo 4 l.c.). Oriental
..... *Acampyloneurus maculipennis* Yang et Chen
- Face width 1.15–1.60 times combined height of face and clypeus. Median area of second metasomal tergite in form of large elongate triangle, posteriorly strongly narrowed, but not forming mid-longitudinal carina (Figs 13–15); third tergite smooth. Eastern Palaearctic 2
2. Base of hind wing with sparse setosity near vein cu-a (Fig. 25). Face granulate, laterally with sparse punctures and weakly transversely rugulose above clypeus (Fig. 5). Face width 1.9–2.2 times larger than width of hypoclypeal depression. Dorsal side of scape (lateral view) somewhat shorter than its ventral side (Fig. 24). Apical margins of third–sixth metasomal tergites with crenulate transverse subapical grooves (but incomplete on third tergite; Fig. 14). – Ovipositor sheath 0.33–0.37 times as long as fore wing (Fig. 2). Vein 3-SR 1.9–2.0 times longer than vein 2-SR (Fig. 25)
..... *Acampyloneurus bohayicus* (Belokobylskij)
- Base of hind wing evenly setose (Figs 23, 26). Face smooth with sparse punctures (Figs 4, 6). Face width 1.6–1.9 times larger than width of hypoclypeal depression. Dorsal side of scape (lateral view) more or less longer than its ventral side (Figs 6, 22). Apical margins of third to sixth tergites without transverse subapical grooves (Figs 13, 15) 3
3. Scape (in lateral view; Figs 4, 22) not protruding ventrally. Face width about 1.6 times combined height of face and clypeus (Fig. 4). Ovipositor sheath about 1.9 times longer than hind tibia, about 0.57 times as long as fore wing (Fig. 1). Vein 3-SR 1.1–1.4 times longer than vein 2-SR (Fig. 23). Vein 1-M 2.0–2.1 times vein m-cu, 2.6–2.7 times longer than vein cu-a. Malar space granulate. Mesopleural pit almost indistinct *Acampyloneurus abnormis* (Belokobylskij)
- Scape (in lateral view; Figs 6, 26) with somewhat protruding ventral margin. Face width 1.3 times combined height of face and clypeus (Fig. 6). Ovipositor sheath as long as hind tibia, 0.26 times as long as fore wing (Fig. 3). Vein 3-SR 1.9 times longer than vein 2-SR (Fig. 27). Vein 1-M 1.6 times vein m-cu, 1.8 times longer than vein cu-a. Malar space smooth. Mesopleural pit distinct, deep
..... *Acampyloneurus penini* (Belokobylskij)

Acampyloneurus abnormis (Belokobylskij, 2000), comb. nov.

(Figs 1, 4, 7, 10, 13, 16, 19, 22, 23)

Cyanopterus abnormis Belokobylskij, 2000 in Belokobylskij, Tobias, 2000: 171 (in key).

Material examined. RUSSIA (ZISP). Primorskiy Territory: 20 km SE of Ussuriysk, forest, clearings, 1 female (holotype), 4.VIII.1991 (S. Belokobylskij) [“Приморский край, 20 км юв Уссурийска, лес, вырубки, 4.08.1991, Белокобыльский”, “Holotype *Cyanopterus abnormis* Belokobylskij”]; Evseevka, 25 km SE of Spassk-Dal’niy, forest, 1 male, 23.VII.2013 (S. Belokobylskij).



Figs 1–9. *Acampyloneurus abnormis* (Belokobylskij, 2000) (1, 4, 7 – holotype, female); *A. bohayicus* (Belokobylskij, 2000) (2, 5, 8 – holotype, female); *A. penini* (Belokobylskij, 2000) (3, 6, 9 – holotype, female). 1–3 – habitus, lateral view; 4–6 – head, front view; 7–9 – head, dorsal view.

Description. Female. Body length 3.2 mm.

Width of head (dorsal view) 1.6 times its median length. Transverse diameter of eye (dorsal view) 1.8 times longer than temple. Eyes with sparse, short setae. OOL 2.9 times Od; POL 1.3 times Od; OOL 2.2 times POL. Frons with deep mid-longitudinal groove. Longitudinal diameter of eye in lateral view 1.3 times larger than its transverse diameter. Transverse diameter of eye (lateral view) 2.1 times longer than minimum width of temple, hind margins of eye and temple weakly broadened upwards. Face width 1.6 times combined height of face and clypeus; 1.9 times larger than width of hypoclypeal depression. Longitudinal diameter of eye 3.4 times longer than malar space (front view); malar space 0.6 times base of mandible; malar suture weakly impressed. Width of hypoclypeal depression 1.6 times larger than distance from depression to eye. Clypeus without dorsal carina, flattened, with protruding ventral rim; height of clypeus 0.25 times width of hypoclypeal depression. Maxillary palp longer than eye.

Antenna 0.9 times as long as fore wing, with 29 antennomeres. Dorsal side of scape (lateral view) longer than its ventral side. First flagellomere 2.3 times longer than its apical width, 1.2 times longer than second flagellomere. Middle and penultimate flagellomeres 1.7 and 1.8 times longer than wide, respectively.

Mesosoma 1.5 times longer than its maximum height. Transverse pronotal sulcus smooth, deep anteriorly and posteriorly. Notauli impressed anteriorly, smoothened and united posteriorly. Median lobe of mesoscutum glabrous. Scutellar sulcus crenulate, 0.08 times as long as scutellum. Mesepimeral sulcus smooth. Mesopleural pit almost indistinct.

Wings. Pterostigma 2.8 times longer than wide. Vein 1-R1 1.6 times longer than pterostigma. Marginal cell 7.8 times longer than distance from its apex to apex of wing. Vein 3-SR 2.8 times longer than vein r, 0.45 times as long as vein SR1, 1.4 times longer than vein 2-SR. Vein 1-M 0.75 times vein 1-SR+M, 2.0 times vein m-cu. Vein 1-SR+M curved forward proximately. Vein cu-a weakly postfurcal. Hind wing membrane evenly setose in base, vein 2-1A absent.

Legs. Fore tibia with wide row of long thick setae. Hind femur 3.3 times longer than wide. Hind tibia 1.5 times longer than hind femur, with two thick setae subapically, its inner spur 0.42 times as long as hind basitarsus. Hind tarsus 0.9 times as long as hind tibia. Fifth segment of hind tarsus (without pretarsus) 0.45 times as long as hind basitarsus and 0.75 times as long as second segment. Basal lobes of claws not protruding.

Metasoma 1.3 times longer than mesosoma, with five visible tergites. Median length of first metasomal tergite (measured from apex of petiolar adductor tubercle) 1.1 times larger than its apical width. First tergite with weakly separated dorsolateral carinae and median area separated by rugate furrow. Second tergite medially 1.3 times longer than third tergite. Basal width of second tergite 1.7 times larger than its median length. Second tergite with median area strongly elevated, wide, triangle, rounded on sides anteriorly, narrowed posteriorly, separated by crenulate furrows; without anterolateral areas; with long weakly converging sublateral furrows. Suture between second and third tergites weakly curved. Apical margins of third to sixth tergites without transverse subapical grooves. Ovipositor sheath 1.9 times longer than hind tibia and 0.57 times as long as fore wing. Apex of ovipositor with weak dorsal nodus and developed ventral serration.

Sculpture. Body mostly smooth. Face smooth to sparsely punctate, malar space granulate. First metasomal tergite laterally weakly rugulose, smooth to obliquely rugulose on median area; second tergite with rugae along median area and sublateral furrows.

Coloration. Body mainly brown. Head, prothorax and fore leg yellow. Maxillary palp pale yellow. Middle leg and tegula yellowish-brown. Pterostigma and veins of wings brown, wing membrane faintly brownish darkened.

Male (first record). Body length 3.6 mm. Width of head (dorsal view) 1.5 times its median length. Transverse diameter of eye (dorsal view) 1.3 times longer than temple. OOL 2.5 times Od. Transverse diameter of eye (lateral view) 1.8 times longer than minimum width of temple. Width of hypoclypeal depression 1.9 times larger than distance from depression to eye. Middle and penultimate flagellomeres 2.0 times and 2.4 times longer than wide, respectively. Vein 3-SR 1.7 times longer than vein r, 0.37 times as long as vein SR1, 1.1 times longer than vein 2-SR. Hind femur 3.6 times longer than wide. Metasoma with six visible tergites. Second metasomal tergite medially 1.2 times longer than third tergite. Palps yellow. Head, prothorax and mesoscutum along notauli reddish-yellow. Scutellum laterally and posteriorly, lateral parts of first metasomal tergite and second tergite around median area pale yellow. Otherwise similar to female.

Acampyloneurus bohayicus (Belokobylskij, 2000), comb. nov.

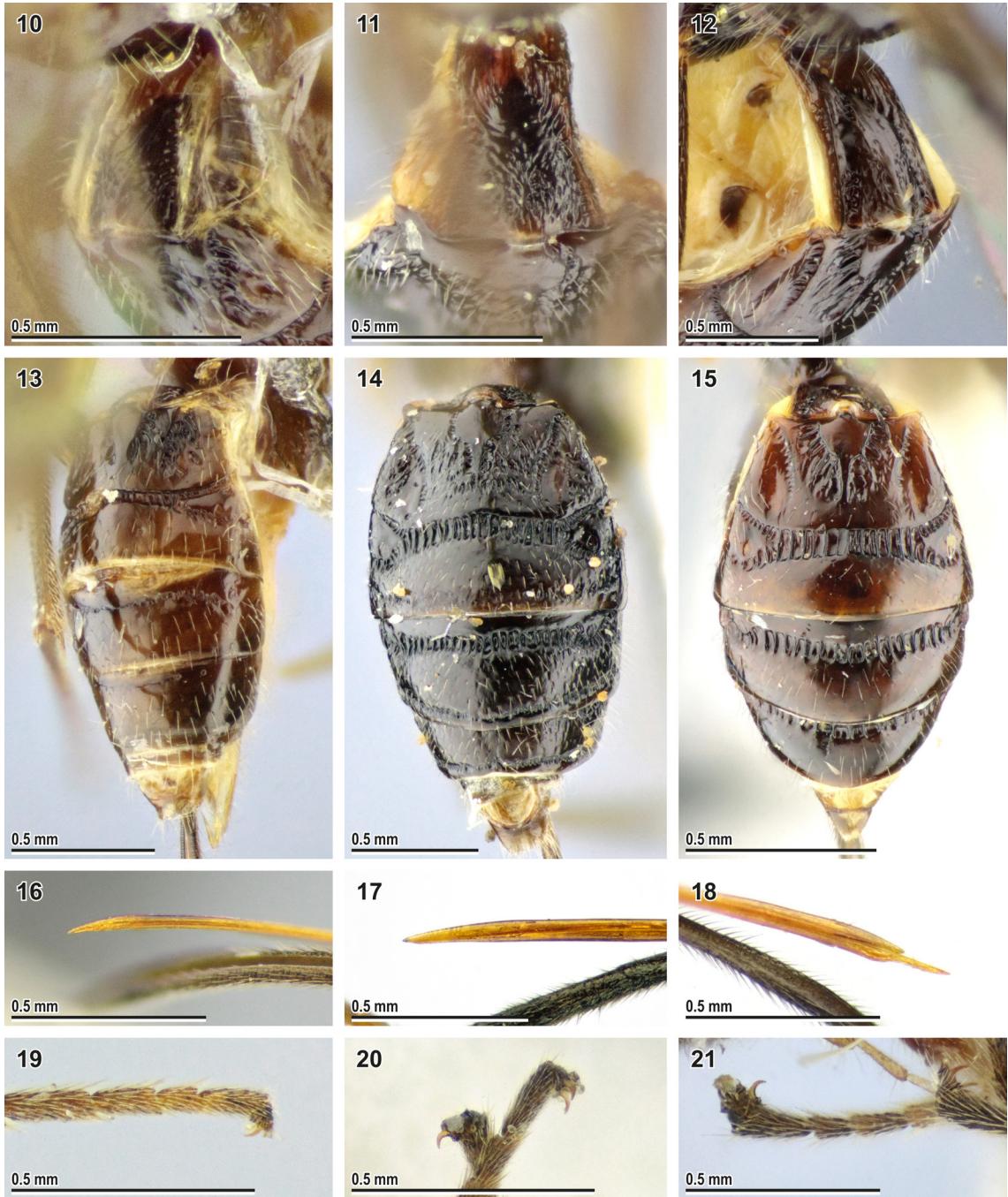
(Figs 2, 5, 8, 11, 14, 17, 20, 24, 25)

Cyanopterus bohayicus Belokobylskij, 2000 in Belokobylskij, Tobias, 2000: 175 (in key).

Material examined. RUSSIA (ZISP). Primorskiy Territory: 20 km SW of Putsilovka, Monakino, forest, glades, 1 female (holotype), 24–28.VI.1993, (S. Belokobylskij) [“Приморский край, 20 км ЮЗ Пуциловки, Монакино, лес, поляны, 24–28.06.1993, Белокобыльский”, “Holotype *Cyanopterus bohayicus* Belokobylskij”]; 10 km S of Artyom, forest, glades, 1 female, 13.VIII.2013 (S. Belokobylskij); 10 km SE of Partizansk, Novitskoe, forest, glades, 1 female, 3–4.VIII.2013 (S. Belokobylskij).

Description. Female. Body length 4.0–5.1 mm.

Width of head (dorsal view) 1.6–1.8 times its median length. Transverse diameter of eye (dorsal view) 1.4–1.8 times longer than temple. Eyes with more or less dense, short setae. OOL 2.2–2.5 times Od; POL 1.1–1.2 times Od; OOL 1.9–2.4 times POL. Frons with very deep mid-longitudinal groove. Longitudinal diameter of eye in lateral view 1.3–1.4 times larger than its transverse diameter. Transverse diameter of eye (lateral view) 2.1–2.3 times longer than minimum width of temple, hind



Figs 10–21. *Acampyloneurus abnormis* (Belokobylskij, 2000) (10, 13, 16, 19 – holotype, female); *A. bohayicus* (Belokobylskij, 2000) (11, 14, 20 – holotype, 17 – non-type; female); *A. penini* (Belokobylskij, 2000) (12, 15, 18, 21 – holotype, female). 10–12 – first metasomal tergite, dorsal or dorsolateral view; 13–15 – metasoma, dorsal or dorsolateral view; 16–18 – apex of ovipositor; 19–21 – claw of leg.

margins of eye and temple weakly broadened upwards. Face width 1.3 times combined height of face and clypeus; 1.9–2.2 times larger than width of hypoclypeal depression. Longitudinal diameter of eye 3.2–3.6 times longer than malar space (front view); malar space 0.6–0.7 times base of mandible. Malar suture weakly impressed. Width of hypoclypeal depression 1.2–1.6 times larger than distance from depression to eye. Clypeus without or with weak dorsal carina, flattened, with protruding ventral rim; height of clypeus 0.32–0.38 times width of hypoclypeal depression. Maxillary palp equal or longer than eye.

Antenna. Dorsal side of scape (lateral view) longer than its ventral side. First flagellomere 1.4–1.8 times longer than its apical width, 1.1–1.2 times longer than second flagellomere. Middle flagellomeres 1.2–1.4 times longer than wide.

Mesosoma 1.5–1.6 times longer than its maximum height. Transverse pronotal sulcus smooth, deep anteriorly and posteriorly, smoothed medially. Notauli deep anteriorly, smoothed and not united posteriorly. Median lobe of mesoscutum glabrous. Scutellar sulcus crenulate, 0.12–0.14 times as long as scutellum. Mesepimeral sulcus smooth. Mesopleural pit weakly impressed.

Wings. Pterostigma 3.0–3.2 times longer than wide. Vein 1-R1 1.3–1.4 times longer than pterostigma. Marginal cell 7.9–9.2 times longer than distance from its apex to apex of wing. Vein 3-SR 3.9–4.2 times longer than vein r, 0.58–0.62 times as long as vein SR1, 1.9–2.0 times longer than vein 2-SR. Vein 1-M 0.55–0.65 times vein 1-SR+M, 1.3–1.5 times vein m-cu. Vein 1-SR+M curved forward proximately. Vein cu-a interstitial. Hind wing membrane with sparse setosity near vein cu-a in base; vein 1-1A 1.4–1.6 times longer than vein cu-a, vein 2-1A absent.

Legs. Fore tibia with longitudinal and transverse apical rows of thick setae. Hind femur 3.6–3.8 times longer than wide. Hind tibia 1.5 times longer than hind femur, with subapical transverse row of spiny setae, its inner spur 0.39–0.42 times as long as hind basitarsus. Hind tarsus 0.90–0.95 times as long as hind tibia. Fifth segment of hind tarsus (without pretarsus) 0.40–0.45 times as long as hind basitarsus and 0.75–0.80 times as long as second segment. Basal lobes of claws in form of blunt angle protruding ventrally.

Metasoma 1.2–1.4 times longer than mesosoma, with five visible tergites. Median length of first metasomal tergite (measured from petiolar adductor tubercle) 1.2–1.4 times larger than its apical width. First tergite with weakly separated dor-solateral carinae and median area separated by rugate furrow. Second tergite medially 1.1–1.3 times longer than third tergite. Basal width of second metasomal tergite 1.3–1.4 times larger than its median length. Second tergite with median area not or weakly elevated, wide, triangle, rounded on anterior sides, narrowed posteriorly, separated by sharp crenulate margin (without furrows); with elongate-triangle, smooth, weakly separated anterolateral areas; with long s-shaped sublateral furrows. Suture between second and third tergites deep and wide, weakly curved. Apical margins of third tergite with incomplete, and of fourth-fifth tergites with complete crenulate transverse subapical grooves. Ovipositor sheath 1.2–1.3 times longer than hind tibia and 0.33–0.37 times as long as fore wing. Apex of ovipositor acute, without dorsal nodus and ventral serration.

Sculpture. Body mostly smooth. Face granulate with sparse punctures and sometimes weakly transversely rugulose above clypeus; malar space granulate. First metasomal tergite laterally weakly rugulose, smooth to obliquely rugulose on median area; second tergite medially rugose to rugulose.

Coloration. Body mainly dark brown. Maxillary palp pale yellow. Pronotum and mesoscutum reddish-brown. Fore leg and apices of middle femur and tibia yellow. Middle leg and tegula yellowish-brown. Pterostigma and veins of wings brown, wing membrane brownish darkened.

Male unknown.

Acampyloneurus penini (Belokobylskij, 2000), comb. nov.

(Figs 3, 6, 9, 12, 15, 18, 21, 26, 27)

Cyanopterus penini Belokobylskij, 2000 in Belokobylskij, Tobias, 2000: 177 (in key).

Material examined. RUSSIA (ZISP). Primorskiy Territory: 20 km SW of Putsilovka, Monakino, forest, glades, 1 female (holotype), 24–28.VI.1993 (S. Belokobylskij) [“Приморский край, 20 км ЮЗ Пуциловки, Монакино, лес, поляны, 24-28.06.1993, Белокобыльский”, “Holotype *Cyanopterus penini* Belokobylskij”].

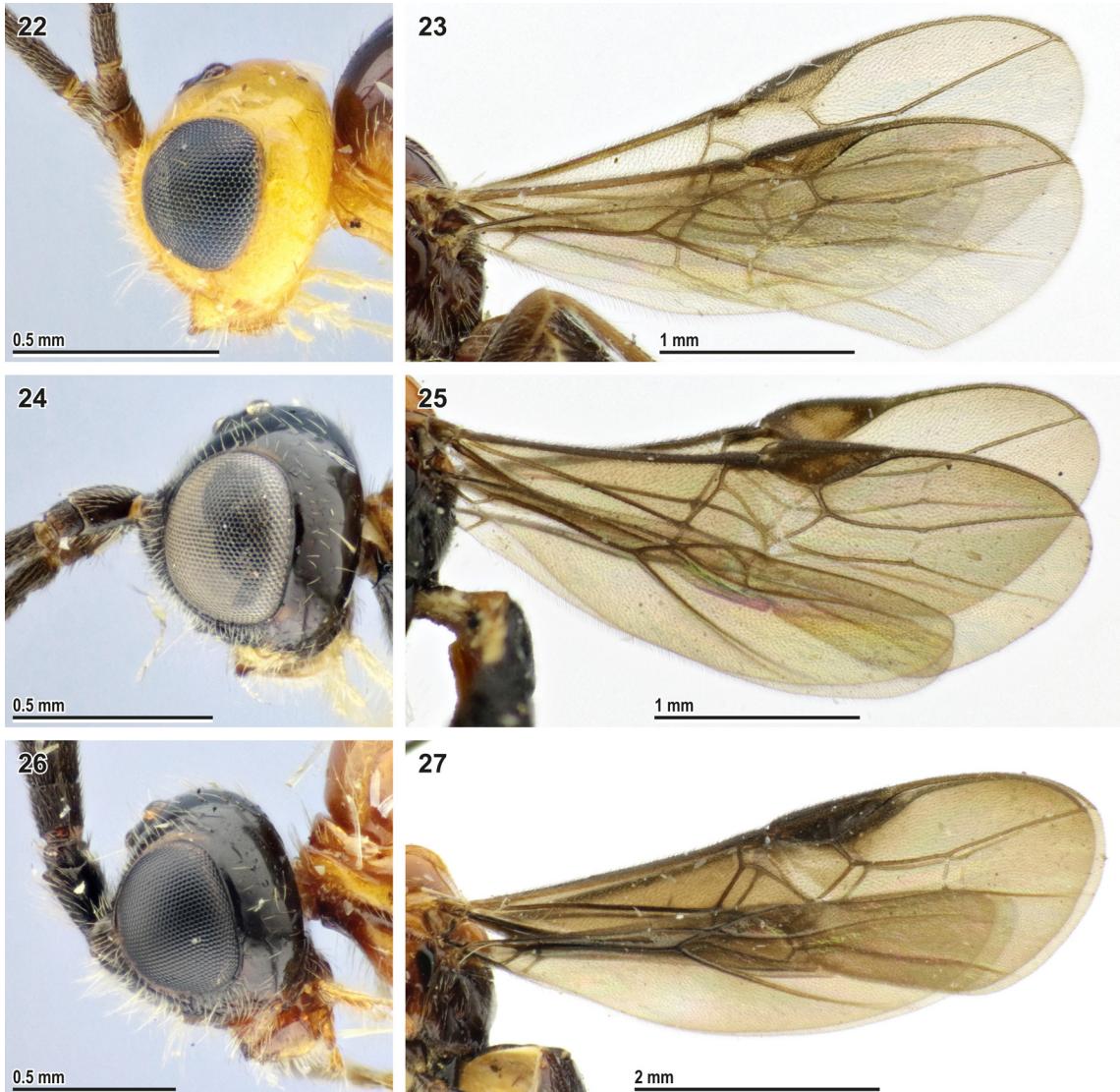
Description. Female. Body length 4.9 mm.

Width of head (dorsal view) 1.6 times its median length. Transverse diameter of eye (dorsal view) 1.6 times longer than temple. Eyes with sparse, short setae. OOL 2.2 times Od; POL 1.1 times Od; OOL 2.0 times POL. Frons with deep mid-longitudinal groove. Longitudinal diameter of eye in lateral view 1.4 times larger than its transverse diameter. Transverse diameter of eye (lateral view) 1.8 times longer than minimum width of temple, hind margins of eye and temple weakly broadened upwards. Face width 1.3 times combined height of face and clypeus, 1.9 times larger than width of hypoclypeal depression. Longitudinal diameter of eye 2.9 times longer than malar space (front view); malar space 0.7 times base of mandible; malar suture weakly impressed. Width of hypoclypeal depression 1.4 times larger than distance from depression to eye. Clypeus separated from face by weak dorsal carina, flattened, with protruding ventral rim, height of clypeus 0.33 times width of hypoclypeal depression. Maxillary palp longer than eye.

Antenna 0.8 times as long as fore wing, with 42 antennomeres. Dorsal side of scape (lateral view) longer than its ventral side, with somewhat protruding ventral margin. First flagellomere 1.6 times longer than its apical width, 1.2 times longer than second flagellomere. Middle and penultimate flagellomeres 1.5 and 1.6 times longer than wide, respectively.

Mesosoma 1.7 times longer than its maximum height. Transverse pronotal sulcus smooth, deep anteriorly and posteriorly, smoothed medially. Notauli impressed anteriorly, smoothed and united posteriorly. Median lobe of mesoscutum glabrous. Scutellar sulcus crenulate, 0.14 times as long as scutellum. Mesepimeral sulcus smooth. Mesopleural pit deep.

Wings. Pterostigma 3.4 times longer than wide. Vein 1-R1 1.4 times longer than pterostigma. Marginal cell 11.2 times longer than distance from its apex to apex of wing. Vein 3-SR 3.3 times longer than vein r, 0.65 times as long as vein SR1, 1.9 times longer than vein 2-SR. Vein 1-M 0.65 times vein 1-SR+M, 1.6 times vein m-cu. Vein 1-SR+M curved forward proximately. Vein cu-a interstitial. Hind wing membrane evenly setose in base; vein 2-1A very short.



Figs 22–27. *Acampyloneurus abnormis* (Belokobylskij, 2000) (22, 23 – holotype, female); *A. bohayicus* (Belokobylskij, 2000) (24, 25 – holotype, female); *A. penini* (Belokobylskij, 2000) (26, 27 – holotype, female). 22, 24, 26 – head, lateral view; 23, 25, 27 – wings.

Legs. Fore tibia with longitudinal and transverse apical rows of thick setae. Hind femur 4.2 times longer than wide. Hind tibia 1.5 times longer than hind femur, without thick setae subapically, its inner spur 0.42 times as long as hind basitarsus. Hind tarsus 0.9 times as long as hind tibia. Fifth segment of hind tarsus (without pretarsus) 0.47 times as long as hind basitarsus and 0.85 times as long as second segment. Basal lobes of claws in form of blunt angle protruding ventrally.

Metasoma 1.25 times longer than mesosoma, with five visible tergites. Median length of first metasomal tergite (measured from petiolar adductor tubercle) 1.1 times larger than its apical width. First tergite with weakly separated dorsolateral carinae and median area separated by crenulate furrow. Second tergite medially 1.4 times longer than third tergite. Basal width of second metasomal tergite 1.3 times larger than its median length. Second tergite with median area strongly elevated, wide, triangle, rounded on sides anteriorly, narrowed posteriorly, separated by crenulate furrows; without anterolateral areas; with long weakly converging sublateral furrows. Suture between second and third tergites deep, wide and almost straight. Apical margins of third to sixth tergites without transverse subapical grooves. Ovipositor sheath as long as hind tibia and 0.26 times as long as fore wing. Apex of ovipositor acute, without dorsal nodus and with weak ventral serration.

Sculpture. Body mostly smooth. Face smooth to sparsely punctate, malar space weakly granulate. Propodeum with short rugae apically. First metasomal tergite laterally weakly rugulose, smooth to weakly rugose on median area; second tergite with crenulae around median area and in sublateral furrows.

Coloration. Head, propodeum, middle and hind legs dark brown. Mesosoma and fore leg reddish-brown. Maxillary palp reddish-yellow. Tegula yellow. Pterostigma and veins of wings dark brown, wing membrane brownish darkened.

Male unknown.

***Bracon* Fabricius, 1804**

Type species: *Ichneumon minutator* Fabricius, 1798.

The extensive taxonomic history of the genus has been summarised by Shenefelt (1978: 1459), Papp (2012: 3) and Yu et al. (2016).

On the synonymy of *Bracon nigricans* (Szépligeti, 1901)

Examination of the type material has shown that *Bracon nigricans* (Szépligeti) represents a distinct species not synonymous with *B. concolorans* Marshall.

***Bracon (Habrobracon) concolorans* Marshall, 1900**

(Figs 28–35)

Bracon concolor Thomson, 1892: 1807; Papp, 2008b: 166 (summary of taxonomic history).

Bracon concolorans Marshall, 1900: 345 (as the new name for *Bracon concolor* Thomson, 1892 nec Walker, 1871); Papp, 2008b: 167 (summary of taxonomic history).

Material examined. SWEDEN (MZLU). Scania: Pålsgö, 1 female (lectotype of *B. concolor* Thomson; designated by Papp, 2008b: 167; Figs 41–48) [“Hbg”, “Sweden, Pålsgö nära Helsingborg”, “concolor”, “Lectotypus ♀ *Bracon concolor* sp. n. Thoms. 1894, des. Papp J. 2006”, “*Habrobracon* ♀ *concolorans* Mshl. det. Papp J. 2006”, “ZML.2005 446”]. RUSSIA (ZISP). Leningradskaya Province: Komarovo, forest, 1 female, 8.V.1982 (V. Trjapitzin).

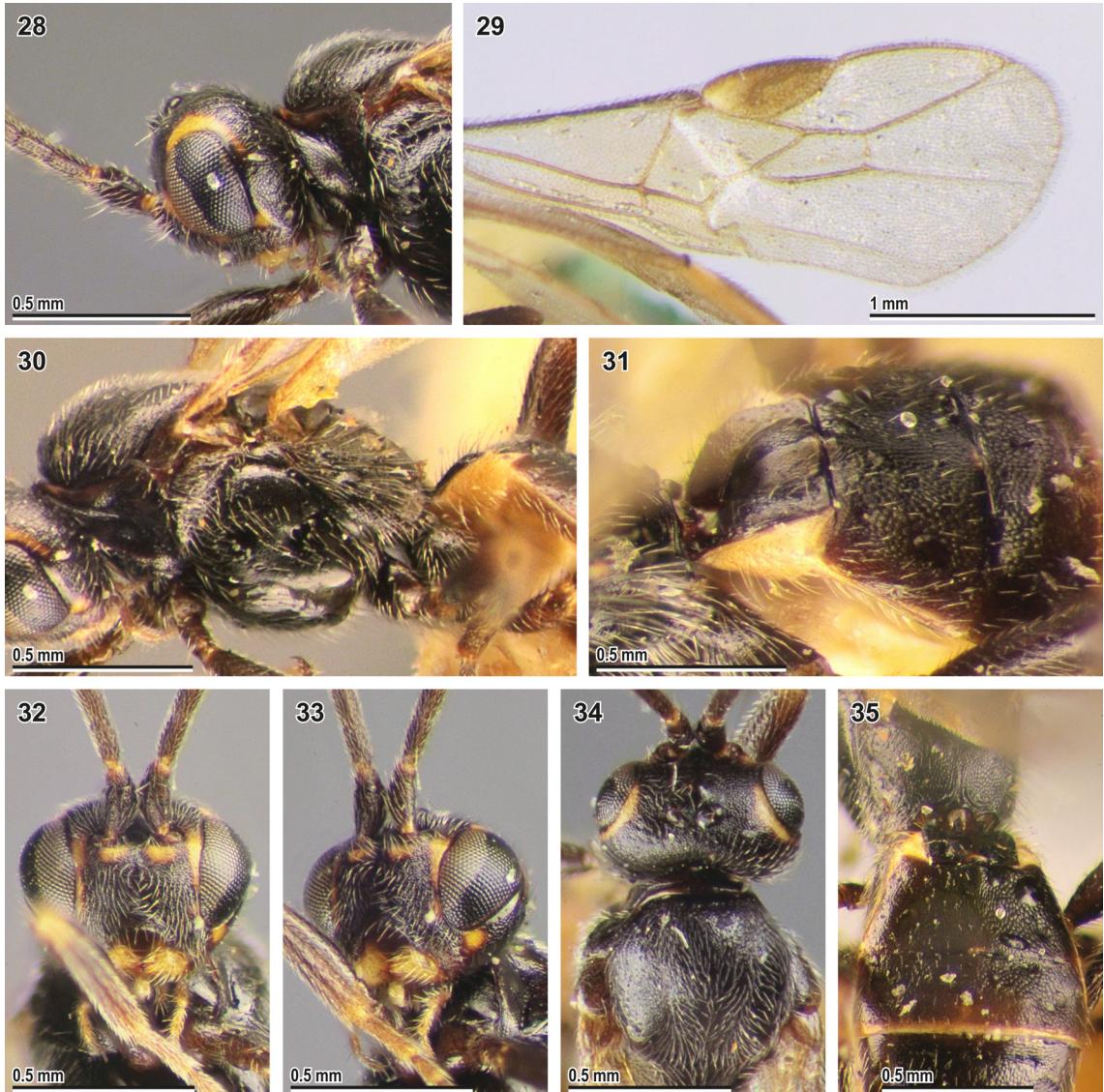
***Bracon (Habrobracon) nigricans* (Szépligeti, 1901), stat. resurr.**

(Figs 36–48)

Habrobracon nigricans Szépligeti, 1901: 181; Papp, 2008b: 167 (summary of the taxonomic history, synonymised with *Bracon concolorans* Marshall, 1900).

Habrobracon mongolicus Telenga, 1936: 130; Tobias, 1959: 894 (synonymised with *Habrobracon nigricans*).

Material examined. HUNGARY (HNHM). Budapest, 1 male (lectotype of *Habrobracon nigricans* Szépligeti; designated by Papp, 2004: 183; Figs 39, 40, 42, 44, 46, 48) [“99.VII.5, Szépligeti”, “Budapest, Svábhegy”, “Lectotypus ♂ *Habrobracon nigricans* sp. n. Szépl. 1901, des. Papp J. 1969”, “Hym. Typ. No. 995, Museum Budapest”, “Hungarian Natural History Museum Hymenoptera Coll. Budapest”]. CHINA (ZISP). Qinghai: Eastern Tsaidam, Keluke Lake, Bayingoule River, 1 female (lectotype of *Habrobracon mongolicus* Telenga, 1936; **designated here**; Figs 37, 38, 41, 43, 47; plate-mounted, almost intact except for the broken-off apices of antennae), 21.V.1895 (V. Roborovsky and P. Kozlov) [golden circular label, “Курлык, Байнгол, вост. Цайдамъ., РобКозлов, 21.V.95”, “Mus. Petropol.”, “*Habrobracon mongolicus* sp. nov., N. Telenga det.”, “Syntypus”, “Lectotypus *Habrobracon mongolicus* Telenga, 1936, design. Samartsev, 2019”]; 1 female (paralectotype; Figs 36, 46), with the same label data as the lectotype; 2 females (non-type), with the same label data as the lectotype, but collected 28.V.1895. RUSSIA (ZISP). Novgorod Province: 20 km NW of Pestovo, Tychkino, 1 female, 30.VI.2003 (V. Tobias). Voronezh Province: Voronezh Nature Reserve (D. Dovnar): forest border, 1 female, 20.V.1950; 1 male, 26.V.1950; 1 female, 29.V.1949; arboretum, 1 male, 4.VI.1950. Ulyanovsk Province: NE of Skugareyevka, steppe meadow, 1 female, 21.VII.2011 (K. Samartsev). Samara Province: near Domashka, Samara River floodplain, sparse forest, yellow pans, 1 female, 26–27.V.2011 (V. Chemyrev); Samara, Podzhabny Island, floodplain meadow, 1 female, 16.V.2010 (K. Samartsev); near Zolnoe, forest glades, 1 female, 1 male, 15.VII.2010 (K. Samartsev); 4 km N of Zhiguli, Molodetskiy kurgan, 1 female, 25.VII.2009 (K. Samartsev); 6 km S of Gvardeytsy, Tavolzhanka River bank, meadow, 2 males, 29.VII.2010 (K. Samartsev); near Zhigulevsk, poultry farm dump, 1 female, 18.VIII.2009 (I. Lyublina); Bezenchuk, steppe, 1 female, 20.VIII.2012 (K. Samartsev). Saratov Province: NE of Malinovka, steppe on a forest edge, 1 female, 3.VI.2011 (K. Samartsev); near Dyakovka, fixed sands, 2 females, 26.VI.2012 (K. Samartsev). Volgograd Province: Kamyshin, 1 female, 30.VI.1950 (G. Viktorov); Golubinskaya, ravine forest, 1 female, 9.VII.2012 (D. Astakhov); Elton, Samaroda River, steppe, 2 males, 15.VII.2012 (K. Samartsev). Astrakhan Province: Kharabali, dry steppe, shrubs, 1 female, 2 males, 19.VI.2004 (S. Belokobylskij); Dosang, fixed sands, 3 females, 1 male, 22–24.VI.2004 (S. Belokobylskij); same locality, sparse valley forest, meadows, 1 female, 23.VI.2004 (S. Belokobylskij); near Bolkhuny, Akhtuba River bank, steppe meadow on sand, 2 males, 15.VI.2010 (K. Samartsev); Bogdo-Baskunchak Nature Reserve, Zeleny Sad area, 1 male, 19.VI.2010 (K. Samartsev); Akhtubinsk, floodplain forest, 1 female, 18.VI.2010 (K. Samartsev). Orenburg Province: 5 km E of Kurlin, herb-stipa steppe, 2 females, 25.V.2010 (K. Samartsev). Republic of Tuva (Tyva): env. Uvs-Nur Lake, steppe, flowers, 1 female, 1 male, 23–24.VII.2009 (S. Belokobylskij); 20 km S of Erzin, Tore-Khol Lake, sands, 2 females, 27–28.VII.2009 (S. Belokobylskij).

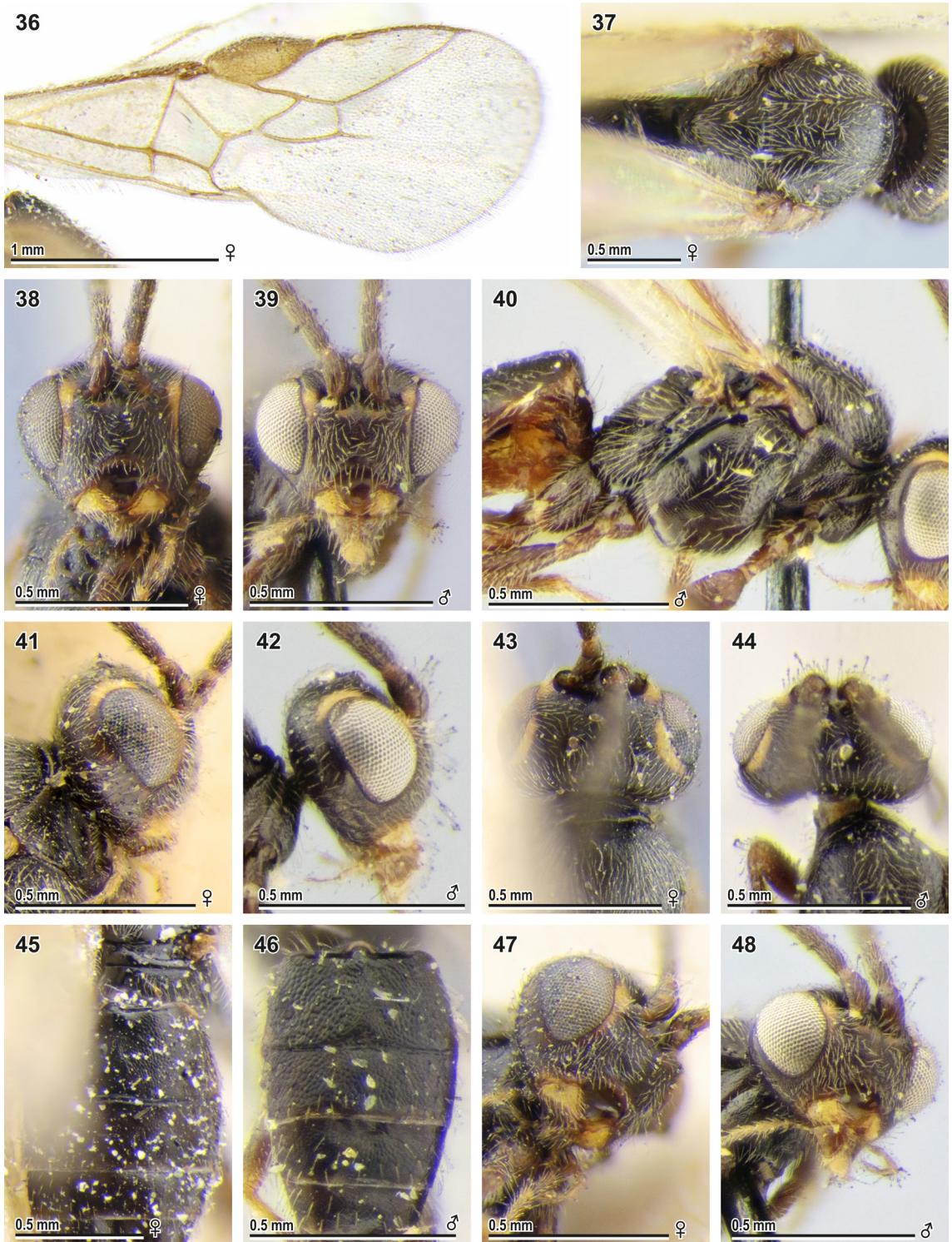


Figs 28–35. *Bracon (Habrobracon) concolorans* Marshall, 1900: *B. concolor* Thomson, 1892 (lectotype, female). 28 – head, lateral view; 29 – fore wing; 30 – mesosoma, lateral view; 31 – first–third metasomal tergites, dorsolateral view; 32 – head, front view; 33 – head, anterolateral view; 34 – head, dorsal view; 35 – propodeum and anterior part of metasoma, dorsal view.

Primorskiy Territory: 20 km SE of Spassk-Dal'niy, chalk slopes, 2 females, 28.VI.1985 (S. Belokobylskij). *Sakhalin Province:* Sakhalin I., Okha, 4 females, 20.VII.1964 (D. Kasparyan); same locality, 2 females, 1 male, 25.VII.1964 (D. Kasparyan). *Chukotka Autonomous Area:* Omolon River, 180 km S of Omolon, 1 female, 1.VII.1976 (V. Marshakov); same locality, 5 females, 23.VIII.1976 (V. Marshakov). *ARMENIA* (ZISP). Mkhchyan, 3 females, 1 male, 7.VIII.1957 (V. Richter); Yerevan, near zoo, 1 male, 3.IX.1962 (V. Richter). *TURKMENISTAN* (ZISP). Garrygala, 1 female, 17.VI.1952 (V. Tobias). *KYRGYZSTAN* (ZISP). Issyk-Kul, 2 females, 1 male, 19.VI.1957 (L. Pek). *KAZAKHSTAN* (ZISP). Zhanybek, 1 female, 14.VII.1952 (Bur-nasheva). *MONGOLIA* (ZISP). Töv Aymag: SW of Ulaanbaatar, env. Songino, steppe, 1 female, 18.VI.1967 (I.M. Kerzhner); Govi-Altai Aymag: 10 km S of Naran, 2500 m, 2 males, 24.VIII.1967 (I.M. Kerzhner).

Diagnosis. *Bracon nigricans* is considered to be valid species because it distinctly differs from *B. concolorans* by the following characters:

1. Vein 2-SR 0.8–1.2 times as long as vein r (Fig. 36). Vein 3-SR 0.7–0.9 times as long as vein r, 0.7–0.9 times as long as vein 2-SR, 0.2–0.3 times as long as vein SR1. Vein 1-R1 1.3–1.5 times longer than pterostigma. Face width about 1.7 times combined height of face and clypeus (Fig. 38) *Bracon nigricans* (Szépligeti)



Figs 36–48. *Bracon (Habrobracon) nigricans* (Szépligeti, 1901); *Habrobracon mongolicus* Telenga, 1936 (37, 38, 41, 43, 45, 47 – lectotype, female, 36, 45 – paralectotype, female); *H. nigricans* Szépligeti, 1901 (39, 40, 42, 44, 46, 47 – lectotype, male). 36 – fore wing; 37 – mesoscutum, dorsal view; 38, 39 – head, front view; 40 – mesosoma, lateral view; 41, 42 – head, lateral view; 43, 44 – head, dorsal view; 45, 46 – metasoma, dorsal view; 47, 48 – head, ventrolateral view.

- Vein 2-SR 1.7–1.9 times longer than vein r (Fig. 29). Vein 3-SR 1.9–2.3 times longer than vein r, 1.0–1.4 times as long as vein 2-SR, 0.4–0.5 times as long as vein SR1. Vein 1-R1 about 1.2 times longer than pterostigma. Face width about 1.5 times combined height of face and clypeus (Fig. 32) *Bracon concolorans* Marshall

On the synonymy of *Bracon subcylindricus* Wesmael, 1838

Examination of the type material of *Bracon longicollis* Wesmael and its supposed synonyms (except for *Bracon neglectus* Szépligeti, 1904 and *B. spurnensis* Hincks, 1951) has shown that *Bracon subcylindricus* Wesmael is a valid species and the following taxa are to be synonymized with it.

Bracon (Bracon) subcylindricus Wesmael, 1838

Bracon subcylindricus Wesmael, 1838: 30 (type material examined); Papp, 2012: 43 (summary of the taxonomic history, as the synonym of *B. longicollis* Wesmael); Samartsev, 2018: 248 (in key, as a valid species).

Bracon depressiusculus Szépligeti, 1904: 182 (type material examined); Papp, 2008a: 1775 (summary of the taxonomic history, as the synonym of *B. rugulosus* Szépligeti); Papp, 2012: 48 (as a variety of *B. longicollis* Wesmael, 1838); van Achterberg, 2014: 202 (as a valid species); **syn. nov.**

Bracon kiritshenkoi Telenga, 1936: 235 (type material examined); Samartsev, Belokobylskij, 2013: 769 (summary of the taxonomic history, as a valid species); **syn. nov.**

Bracon neglectus Szépligeti, 1904: 162 (type material not examined); Papp, 2008a: 1775 (summary of the taxonomic history, as the synonym of *B. rugulosus* Szépligeti); Papp, 2012: 44 (as the synonym of *B. longicollis* Wesmael); **syn. nov.**

Bracon procerus Papp, 1965: 414 (type material examined); Tobias et al., 1986: 129 (as possible synonym of *B. longicollis* Wesmael, 1838) **syn. nov.**

Bracon rugulosus Szépligeti, 1901: 277 (type material examined); Papp, 2008a: 1774 (summary of the taxonomic history, as a valid species); Papp, 2012: 44 (as the synonym of *B. longicollis* Wesmael); van Achterberg, 2014: 202 (as a junior synonym of *Bracon depressiusculus* Szépligeti, 1904); **syn. nov.**

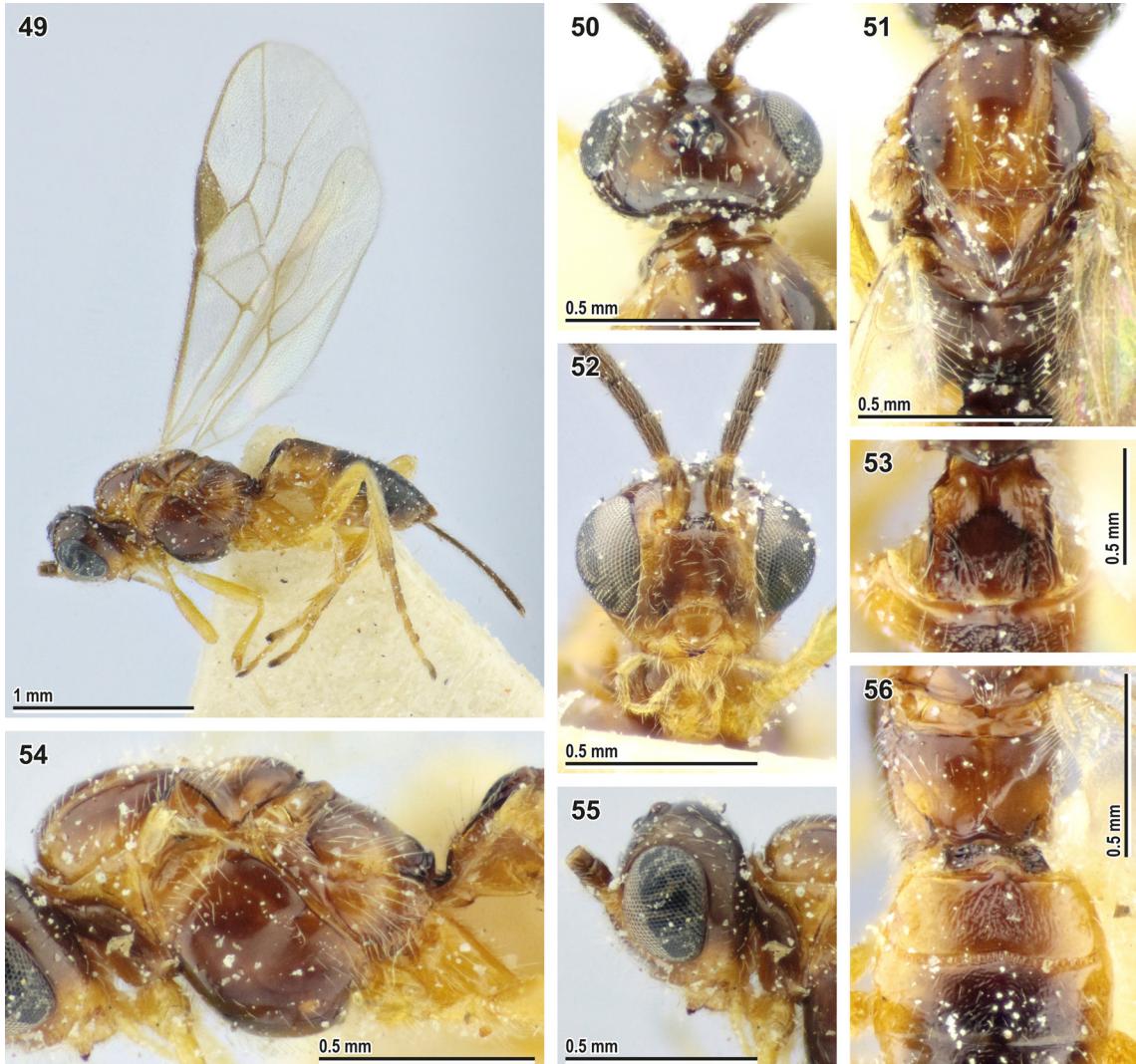
Bracon spurnensis Hincks, 1951: 232 (type material not examined); Papp, 2008a: 1775 (summary of the taxonomic history, as the synonym of *B. rugulosus* Szépligeti, 1901); Papp, 2012: 44 (as the synonym of *B. longicollis* Wesmael); **syn. nov.**

Material examined. BELGIUM (IRSNB). Brussels, 1 female (holotype of *B. subcylindricus*; Papp, 2012: 44) [“Coll. Wesmael”, “2035”, “Braco ♀ subcylindricus mihi dét. C. Wesmael”, “Type”, “Belgique, Bruxelles leg. Wesmael, Papp J., 1987”, “Holotypus Braco ♀ subcylindricus sp. n. Wesmael, 1838, des. Papp J., 1987”]. HUNGARY (HNHM). Pilismarót: 1 female (lectotype of *B. depressiusculus*; designated by Papp, 2004: 173) [“P. Maróth, Szépligeti”, “Hungaria”, “Lectotypus *Bracon depressiusculus* sp. n. Szépl. 1904, des. Papp J. 1968”, “Hym. Typ. No. 1400, Museum Budapest”, “*Bracon longicollis* var. *depressiusculus* Sz. det. Papp J., 2009”], 1 female (lectotype of *Bracon rugulosus* Szépligeti; designated by Papp, 1969a: 202) [“P.-Maróth, Szépligeti”, “Hungaria”, “Lectotypus *Bracon rugulosus* sp. n. Szépl. 1901, des. Papp J. 1968, ant. 33-art.”, “Hym. Typ. No. 1401, Museum Budapest”, “*Bracon longicollis* Wesm. det. Papp J., 2009”]; Nyíregyháza, 1 female (holotype of *B. procerus*), [“Nyíregyháza, Horvath 1918, VII.23”, “Hungaria”, “*Bracon (Orthobracon)* sp. n. aff. *gusaricus* Tel., Tobias det. 1963”, “Holotypus ♀ *Bracon (Orthob.) procerus* sp.n. Papp J. 1965”, “Hym. typ. No. 1406. Museum Budapest”, “*Bracon zonulatus* Fahr. det. Papp J. 2005, ant. dext. 39-art., ..sin 38-..”, “Hungarian Natural History Museum Hymenoptera Coll. Budapest”]. RUSSIA (ZISP). Chechen Republic: Starogladkovskaya, 1 female (lectotype of *B. kiritshenkoi* Telenga; designated by Samartsev, Belokobylskij, 2013: 769), 8.VII.1927 (A.N. Kiritshenko) [golden circular label, “Срапогладковская, Кизл. окр. Терск. обл. Кириченко. 8.VII.927”, “*Bracon kiritshenkoi* sp. n., N. Telenga det.”, “Lectotypus *Bracon kiritshenkoi* Telenga, 1936, design. Samartsev, 2013”]; 1 female (paratype of *B. kiritshenkoi* Telenga), with the same label data as lectotype. Volgograd Province: NW of Elton Lake, Khara River, steppe, 1 female, 16.VI.2004 (A. Khalaim); 10 km S of Mikhaylovka, Medveditsa River, forest, glades, 1 female, 29.VI.2004 (S. Belokobylskij). Astrakhan Province: Astrakhan Nature Reserve, Damchiksky section, Phragmites, Typha, Carex, 7 females, 2 males, 19–21.VII.1974 (V. Kostjukov); Dosang, sparse valley forest, meadows, 1 female, 23.VI.2004 (S. Belokobylskij); Astrakhan, Gorodskoy Island, dry and wet meadow, forest, 5 females, 1 male, 25–26.VI.2004 (S. Belokobylskij & A. Khalaim).

Diagnosis. The diagnosis separating *Bracon subcylindricus* within the genus *Bracon* and the key to distinguish it from related species are presented in Samartsev (2018: 248).

On the synonymy of *Bracon immutator* Nees, 1834

The taxonomy of *Bracon intercessor* Nees, 1834 contains a large number of synonyms and is in need of a special revision. Two species do not fit its current taxonomic concept and are excluded from its synonyms and transferred to *Bracon immutator* Nees. One of them, *B. kachetinus* Telenga, 1933, is considered here to be a separate subspecies because it differs from *B. immutator* s. str. by its considerably shortened ovipositor.



Figs 49–56. *Bracon (Bracon) immutator* Nees, 1834: *B. kachetinus* Telenga, 1933 (49, 52–56 – lectotype, female, 50–52 – paralectotype, female). 49 – habitus, lateral view; 50 – head, dorsal view; 51 – mesosoma, dorsal view; 52 – head, front view; 53 – first metasomal tergite, dorsal view; 54 – mesosoma, lateral view; 55 – head, lateral view; 56 – propodeum and first–third metasomal tergites, dorsal view.

***Bracon (Bracon) immutator* Nees, 1834**

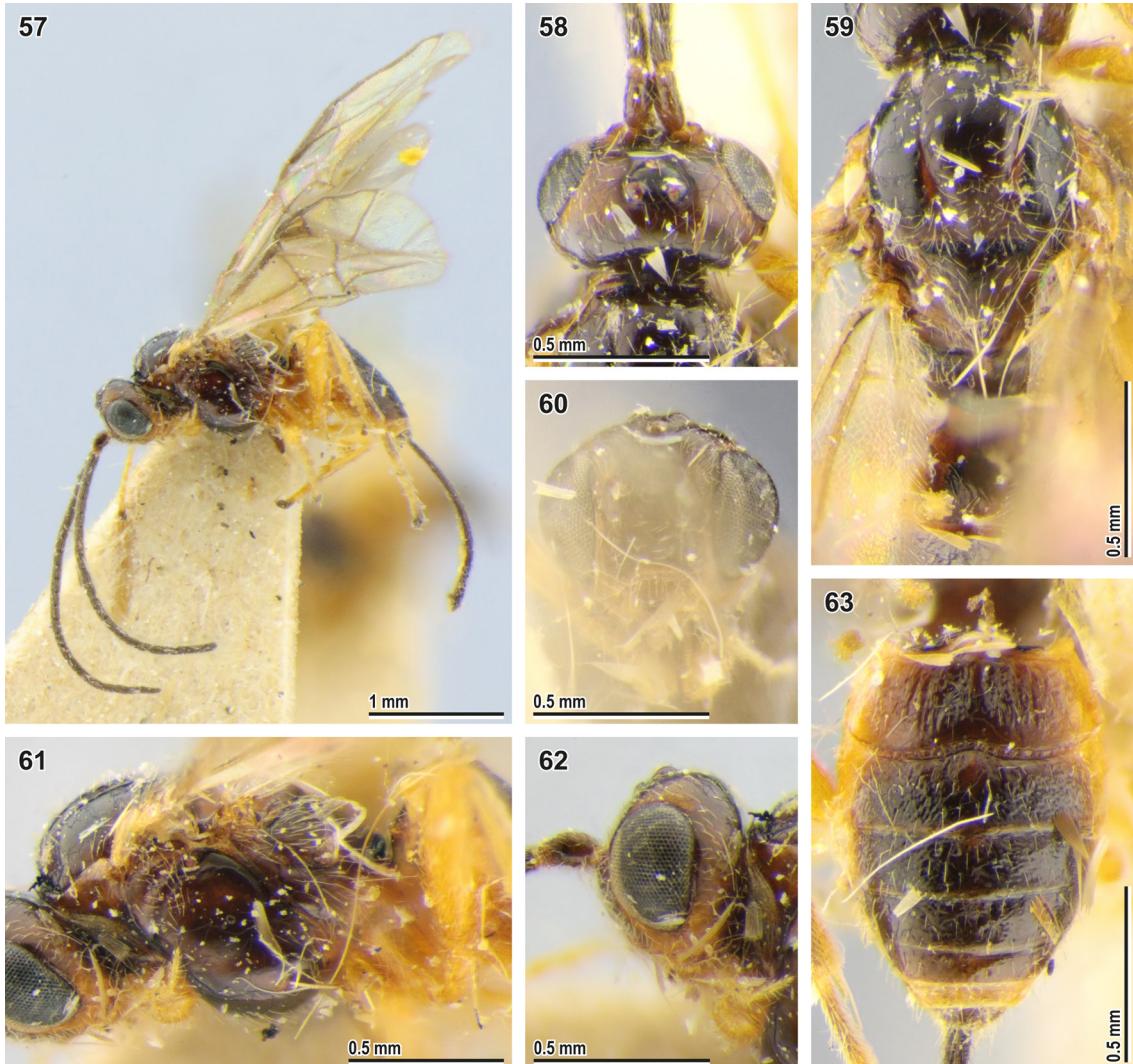
(Figs 49–63)

Bracon immutator Nees, 1834: 76; Papp, 2012: 127 (summary of taxonomic history).

Bracon kachetinus Telenga, 1933: 242; Telenga, 1936: 283 (as *B. kacheticus*); Tobias, 1958: 94 (in key); Tobias, 1976: 64 (in key; synonymised with *B. intercessor*); Shenefelt, 1978: 1497; Tobias et al., 1986: 125 (in key; as the synonym of *B. intercessor*), **syn. nov.**

Bracon maslovskii Telenga, 1936: 286; Tobias, 1976: 64 (in key; synonymised with *B. intercessor*); Shenefelt, 1978: 1507; Tobias et al., 1986: 125 (in key; as the synonym of *B. intercessor*); Belokobylskij, Tobias, 2000: 130 (as the synonym of *B. intercessor*), **syn. nov.**

Material examined. BELGIUM (IRSNB). Brussels, 1 female (neotype of *Bracon immutator*; designated by Papp, 2012: 128) [“Coll. Wesmael”, “2044”, “Braco immutator Nees ♂♀, dét. C. Wesmael”, “Belgique, Bruxelles V-VI, leg. Wesmael / teste J. Papp 1987”, “Neotypus ♀ *Bracon immutator* Nees, 1834 / des. Papp J. 1987, ant. 28-art.”]. RUSSIA (ZISP). Ulyanovsk Province: 2 km NE of Skugareyevka, forest border, glades, 1 female, 21.VII.2011 (K. Samartsev). Samara Province: near Zolnoe, mapple-birch forest, 1 female, 15.VII.2010 (K. Samartsev). Volgograd Province: 10 km S of Mikhaylovka,



Figs 57–63. *Bracon (Bracon) immutator* Nees, 1834: *B. maslovskii* Telenga, 1936 (lectotype, female). 57 – habitus, lateral view; 58 – head, dorsal view; 59 – mesosoma, dorsal view; 60 – head, front view; 61 – mesosoma, lateral view; 62 – head, lateral view; 63 – metasoma, dorsal view.

Medveditsa River, forest, glades, 1 female, 29.VI.2004 (S. Belokobylskij). Primorskiy Territory: Nikol'sk-Ussuriyskiy [= Ussuriysk], 1 female (lectotype of *Bracon maslovskii*; designated in Belokobylskij, Tobias, 2000: 130; Figs 57–63; plate-mounted, in good condition), 21.VI.1932 (Maslovskiy), parasitoid of *Anthonomus pomorum* (Linnaeus, 1758) (Coleoptera: Curculionidae) [golden circular label, “21 VI [32]. H Ycc. [паразит] *Anthonomus pomorum*”, “*Bracon masslovskii* sp. n. N. Telenga det.”, “Lectotypus *Bracon maslovskii* Tel., design. Tobias, 2000”]; 1 female (paralectotype of *Bracon maslovskii*), with the same label data as the lectotype. GEORGIA (ZISP). 1 female (lectotype of *Bracon kachetinus*; **designated here**; Figs 49, 53–56; plate-mounted, antennae, left pair of wings, most of right fore tarsus and left middle leg absent), Kakhetia (according to Telenga, 1933), 16.VI.1930, (Aleksadze), parasitoid of *Rhynchites bacchus* (Linnaeus, 1758) (Coleoptera: Rhynchitidae) [golden circular label, “Урьят-Убанская оп. ср. 16.VI 30 Алексадзе / пар. букарки”, “*Bracon kachetinus* sp. n. N. Telenga det.”, “Syntypus”, “Lectotypus *Bracon kachetinus* Telenga, 1933, design. Samartsev, 2019”]; 1 female (paralectotype of *Bracon kachetinus*; Figs 50–52), with the same label data as the lectotype.

Diagnosis. The three taxa can be separated as follows:

1. Face laterally smooth and medially weakly granulate only under toruli. Longitudinal diameter of eye 2.2–2.5 times longer than malar space (front view) *Bracon intercessor* Nees
- Face laterally and medially weakly granulate. Longitudinal diameter of eye 2.9–3.5 times longer than malar space (front view) 2

2. Ovipositor sheath 1.1 times longer than hind tibia, 0.3 times as long as fore wing (Fig. 49). Pterostigma 3.7–4.2 times longer than vein r. Vein 3-SR 1.9–2.1 times longer than vein r (Fig. 49). Third–fifth metasomal tergites with shagreen sculpture (Fig. 56) *Bracon immutator kachetinus* Telenga – Ovipositor sheath 1.4–1.8 times longer than hind tibia, 0.42–0.49 times as long as fore wing (Fig. 57). Pterostigma 3.0–3.3 times longer than vein r. Vein 3-SR 1.7–1.8 times longer than vein r. Third–fifth metasomal tergites with papillary-like sculpture (Fig. 63) *Bracon immutator immutator* Nees

On the synonyms of *Bracon fortipes* Wesmael, 1838 and *B. nigriventris* Wesmael, 1838

Bracon fortipes and *B. nigriventris* were revised by Papp (2012) and their limits of intraspecific variability were considerably reduced. According to their new taxon concepts, a number of taxa has to be excluded from their synonyms. However, the relationships between the taxa concerned are unclear and require special revision involving a large amount of material. Until this revision is made the most feasible option is to retain most species excluded from synonyms of *B. fortipes* and *B. nigriventris* as valid taxa.

***Bracon (Bracon) crocatus* Schmiedeknecht, 1897, stat. resurr.**

(Figs 64–68)

Bracon crocatus Schmiedeknecht, 1897: 540; Papp, 1999: 297 (synonymised with *B. fortipes*); Papp, 2012: 27 (summary of the taxonomic history).

Material examined. ALGERIA (ZMB). Oran, 1 female (lectotype) [“Oran, Schmiedekn. S.”, “30945”, “Type”, “*Bracon crocatus* ♀ Schmied.”, “Lectotypus ♀ *Bracon crocatus* Schmied. 1897 / design. J. Papp, 1988”, “*Bracon fortipes* Ws. det. Papp J. / aut. 28-art.”, “Zool. Mus. Berlin”].

***Bracon (Bracon) fortipes* Wesmael, 1838**

(Figs 69–73)

Bracon fortipes Wesmael, 1838: 18; Papp, 2012: 27 (summary of the taxonomic history).

Material examined. BELGIUM (IRSNB). Env. Liège, 1 female (holotype) [“II/1.”, “Coll. Wesmael”, “2028”, “*Braco* ♀ *fortipes* mihi dét. C. Wesmael”, “Type”, “Belgique, Liège leg. M. Robert / teste J. Papp, 1987”, “Holotypus *Braco* ♀ *fortipes* sp. n., Wesmael, 1838, des. Papp J., 1987”].

***Bracon (Bracon) fumigidus* Szépligeti, 1901**

Bracon fumigidus Szépligeti, 1901: 280; Tobias, 1961b: 173 (synonymised with *B. indubius*); Papp, 2005: 207 (summary of the taxonomic history; as a valid species).

Bracon laetus Szépligeti, 1901: 278; Tobias, 1961b: 173 (synonymised with *B. indubius*); Papp, 2005: 204 (summary of the taxonomic history; as the synonym of *B. fortipes*), **syn. nov.**

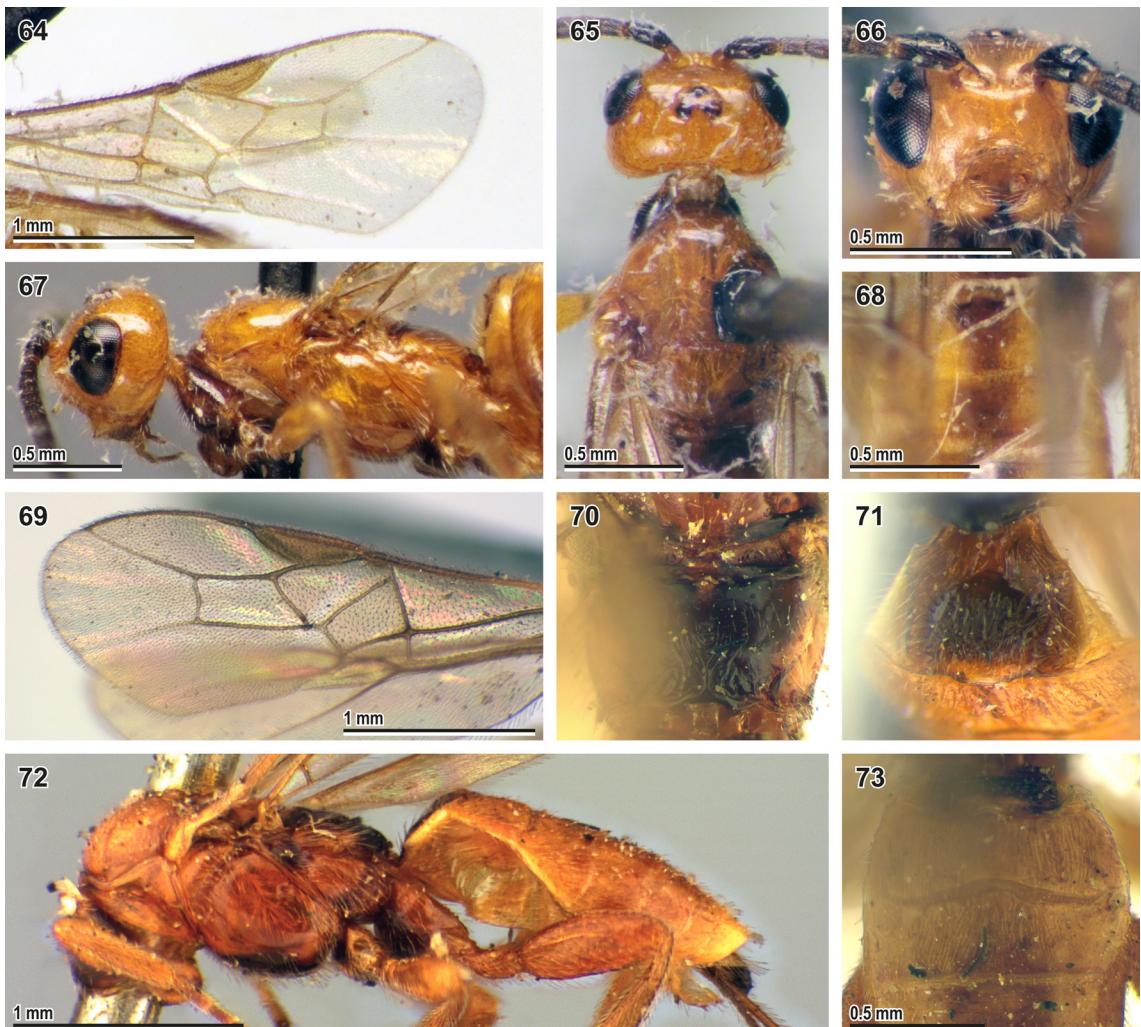
Bracon semirugosus Szépligeti, 1901: 273; Papp, 2005: 204 (summary of the taxonomic history; as the synonym of *B. fortipes*), **syn. nov.**

Material examined. HUNGARY (HNHM). Pilismarót, 1 female (lectotype of *Bracon fumigidus*; Figs 69–72) [“P. Mároth, Szépligeti”, “Hungaria”, “Lectotypus *Bracon fumigidus* sp. n. Szépl. 1901 / des. Papp J. 1968”, “Hym. Typ. No. 1429, Museum Budapest”]; Budapest: 1 female (lectotype of *Bracon laetus*), [“Kertész K, Budakesz[i] / VII.31.1895”, “Lectotypus *Bracon laetus* sp. n. Szépl. 1901 / des. Papp J. 1968”, “Hym. Typ. No. 1354, Museum Budapest”, “*Bracon laetus* Szépl., C. van Achterberg, 1980 Type series checked”]; 1 female (lectotype of *Bracon semirugosus*) [“Budapest, Zugliget”, “898. VIII.28”, “Lectotypus *Bracon semirugosus* sp. n. Szépl. 1901 / des. Papp J. 1968”, “Hym. Typ. No. 1352, Museum Budapest”, “*Bracon fortipes* Ws, det. Papp J. 1990 / var *laetus* Sz.”]. ARMENIA (ZISP). Tsav, forest, 1 female, 2.VII.1971 (W. Kuslitzky). RUSSIA (ZISP). Volgograd Province: Sarepta (Volgograd), 1 female, 1879 (Jusquinet). Krasnodar Territory: Sochi, Lazarevskoye, terrace slopes, forest, 1 female, 6.V.1973 (V. Tobias). Republic of Dagestan: Tushilovka, 1 female, 28.V.1925 (A. Kirichenko). TAJIKISTAN (ZISP). Dushanbe, garden, 1 female, 4.VIII.1943 (Romadina).

***Bracon (Bracon) indubius* Szépligeti, 1901, stat. resurr.**

Bracon indubius Szépligeti, 1901: 278; Papp, 2012: 64 (as *B. nigriventris* var. *indubius*).

Material examined. HUNGARY (HNHM). Budapest, 1 female (lectotype), 29.VII.1898, G. Szépligeti [“Budapest, Kincstári”, “98.VII.29, Szépligeti”, “Lectotypus *Bracon indubius* sp. n. Szépl. 1901 / des. Papp J. 1968”, “Hym. Typ. No. 1433, Museum Budapest”, “*Bracon nigriventris* var. *indubius* Sz. det. Papp J. 2000”].



Figs 64–73. *Bracon (Bracon) crocatus* Schmiedeknecht, 1897 (64–68 – lectotype, female); *B. (B.) fortipes* Wesmael, 1838 (69–73 – holotype, female). 64, 69 – fore wing; 65 – head and mesosoma, dorsal view; 66 – head, front view; 67 – head and mesosoma, lateral view; 68, 73 – second and third metasomal tergites, dorsal view; 70 – propodeum, dorsal view; 71 – first metasomal tergite, dorsal view; 72 – mesosoma and metasoma, lateral view.

Bracon (Bracon) iskilipus Beyarslan et Tobias, 2008

(Figs 74–81)

Bracon iskilipus Beyarslan et Tobias, 2008: 550.

Material examined. TURKEY (? Trakya University). Çorum Province: Elmabeli, 1 female (holotype; Figs 74–81), [“Çorum-İskilip-Elmadibi, 26.VIII.04, M. AYDOĞDU”, “*Bracon* sp. n. aff *moczari* Tobias det. 2006”, “*Bracon iskilipus* sp. n. Beyarslan 2008”]. MOLDOVA (ZISP). Straseni, 1 female, 25.VII.1982 (V.I. Talitskiy).

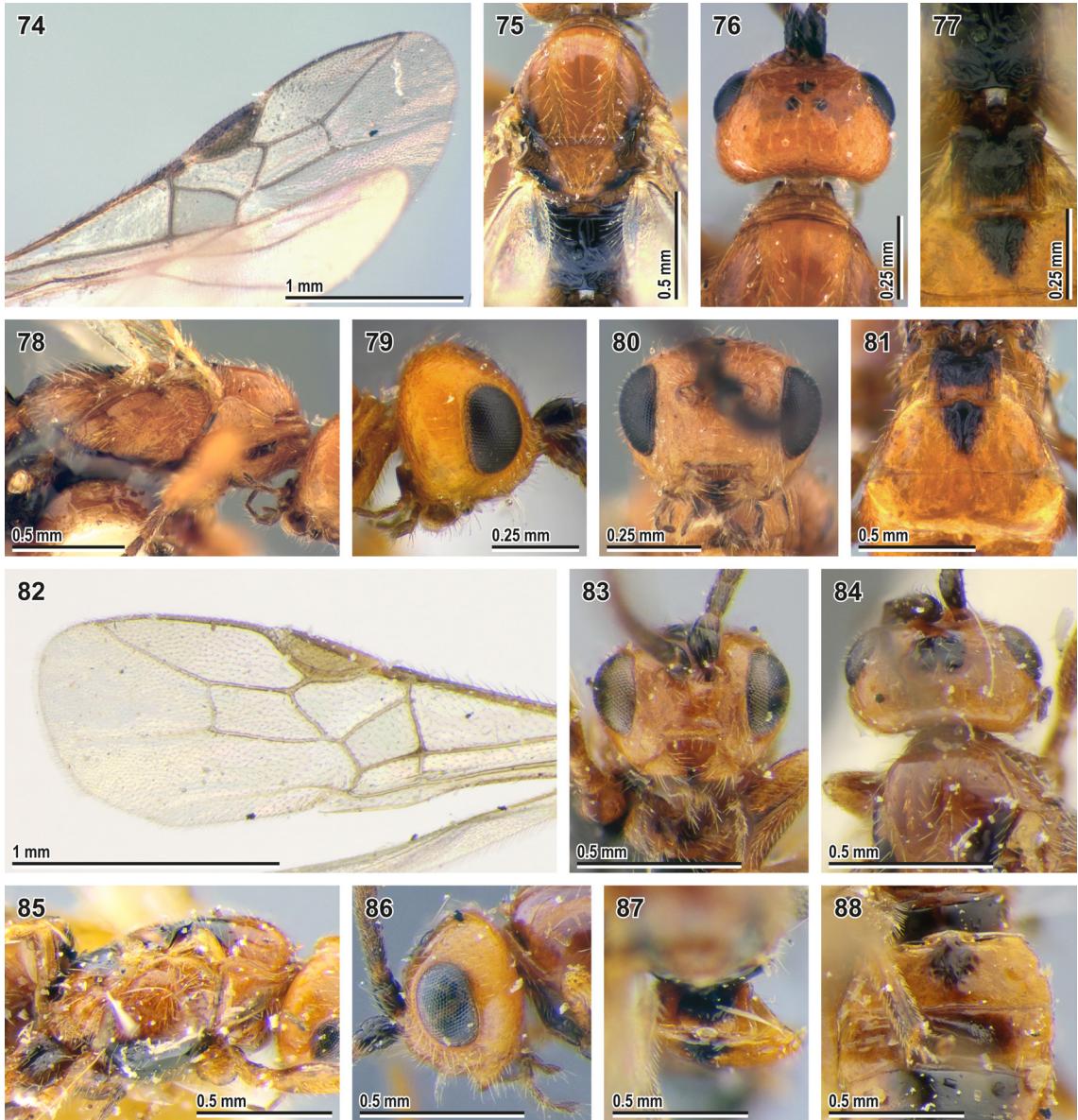
Bracon (Bracon) laticeps Telenga, 1936, stat. resurr.

(Figs 82–88)

Bracon laticeps Telenga, 1936: 293; Tobias, 1958: 107 (in key); 1961b: 171 (synonymised with *B. laetus*); 1976: 69 (synonymised with *B. nigriventris*); Tobias et al., 1986: 147 (as a synonym of *B. nigriventris*); Papp, 2012: 61 (as a synonym of *B. nigriventris*).

Bracon moczari Papp, 1969a: 328; Tobias et al., 1986: 137 (in key); **syn. nov.**

Material examined. HUNGARY (HNHM). Budapest, 1 female (holotype of *Bracon moczari*), 7.X.1907 [“Budapest, Biró. 907 / Sashegy, X.07. Bíró”, “*Bracon (L.) laetus* Szépl., det. Tobias, ‘63”, “Holotypus *Bracon (Lucobr.) moczari*”].



Figs 74–88. *Bracon (Bracon) iskilipus* Beyarslan et Tobias, 2008 (74–81 – holotype, female); *B. (B.) laticeps* Telenga, 1936 (82–88 – lectotype, female). 74, 82 – fore wing; 75 – mesosoma, dorsal view; 76, 84 – head, dorsal view; 77, 87 – first metasomal tergite, dorsal view; 78, 85 – mesosoma, lateral view; 79, 86 – head, lateral view; 80, 83 – head, front view; 81, 88 – second and third metasomal tergites, dorsal view.

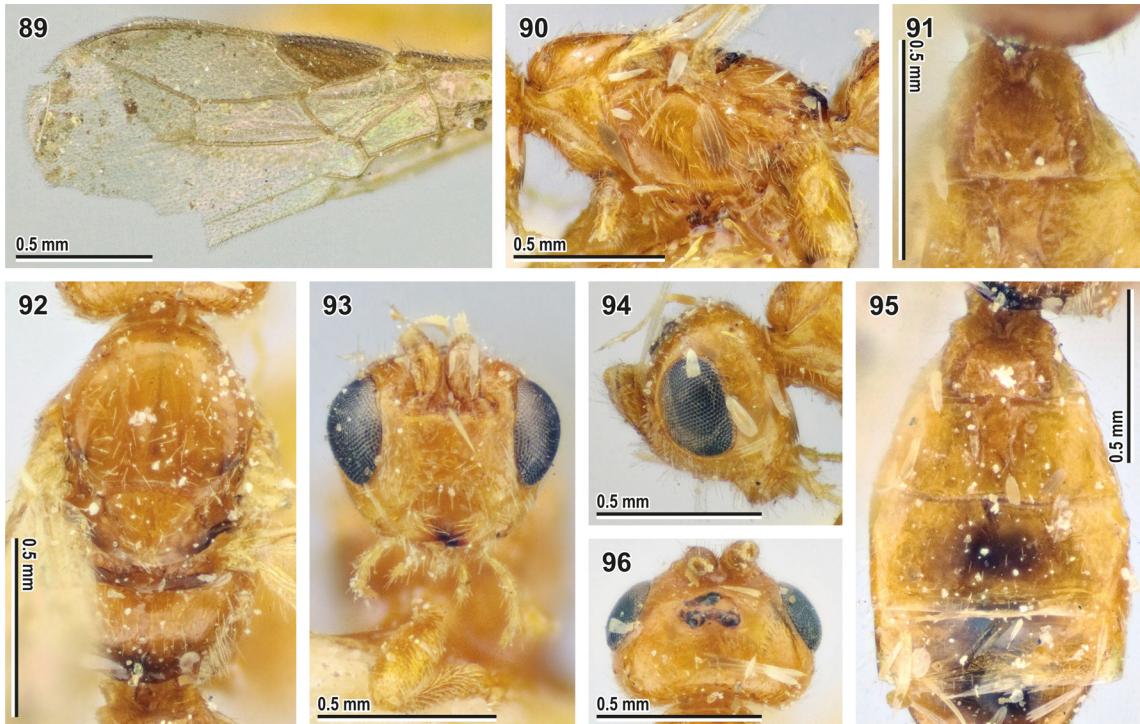
sp. n. Papp 1968”, “Hym. Typ. No. 1463, Museum Budapest”]. RUSSIA (ZISP). Republic of Crimea: Yalta, 1 female (lectotype of *Bracon laticeps*; designated here; Figs 82–88; plate-mounted, with missing right pair of wings and apices of antennae), 1.IX.1930 (N. Telenga) [golden circular label, “Jalta. Nikitsk. Garten, 1-IX 30. N. Telenga.”, “*Bracon laticephalus* sp. n. N. Telenga det.”, “Syntypus”, “Lectotypus *Bracon laticeps* Telenga, 1936, design. Samartsev, 2019”].

Bracon (Bracon) lencoranus Telenga, 1936, stat. resurr.

(Figs 89–96)

Bracon lencoranus Telenga, 1936: 279; Tobias, 1976: 69 (in key, synonymised with *B. nigriventris*), Tobias et al., 1986: 147 (in key, as a synonym of *B. nigriventris*); Papp, 2012: 61 (as a synonym of *B. nigriventris*).

Material examined. AZERBAIJAN (ZISP). N of Lankaran, Kumbashi [= Qumbaşı], 1 female (lectotype; **designated here**; Figs 89–96; plate-mounted, right fore wing and antennae missing), 1.VII.1910 (K.A. Satunin) [golden circular label,



Figs 89–96. *Bracon (Bracon) lencoranus* Telenga, 1936 (lectotype, female). 89 – fore wing; 90 – mesosoma, lateral view; 91 – first metasomal tergite, dorsal view; 92 – mesosoma, dorsal view; 93 – head, front view; 94 – head, lateral view; 95 – second and third metasomal tergites, dorsal view; 96 – head, dorsal view.

“Күмбәши съѣ. Ленкорани Талып, КСатунин. 1.vii 10”, “*Bracon lenkoranikus* sp. n., N. Telenga det.”, “Syntypus”, “Lectotypus *Bracon lencoranus* Telenga, 1936, design. Samartsev, 2019”].

Bracon (Bracon) nigriventris Wesmael, 1838

Bracon nigriventris Wesmael, 1838: 36; Papp, 2012: 61 (summary of taxonomic history).

Material examined. BELGIUM (IRSNB). Brussels, 1 female (holotype), C. Wesmael [“Coll. Wesmael”, “2050”, “Braco ♀ nigriventris mihi. dét. C. Wesmael”, “Type”, “Belgique, Bruxelles, VII, leg. Wesmael / teste J. Papp, 1987”, “Holotypus *Braco nigriventris* sp. n. Wesmael 1838 / des. Papp J. 1987”]. RUSSIA (ZISP). Samara Province: near Shiryayevо, 1 female, 11.VIII.2011 (K. Samartsev).

Bracon (Bracon) persimilis Telenga, 1936, stat. resurr.

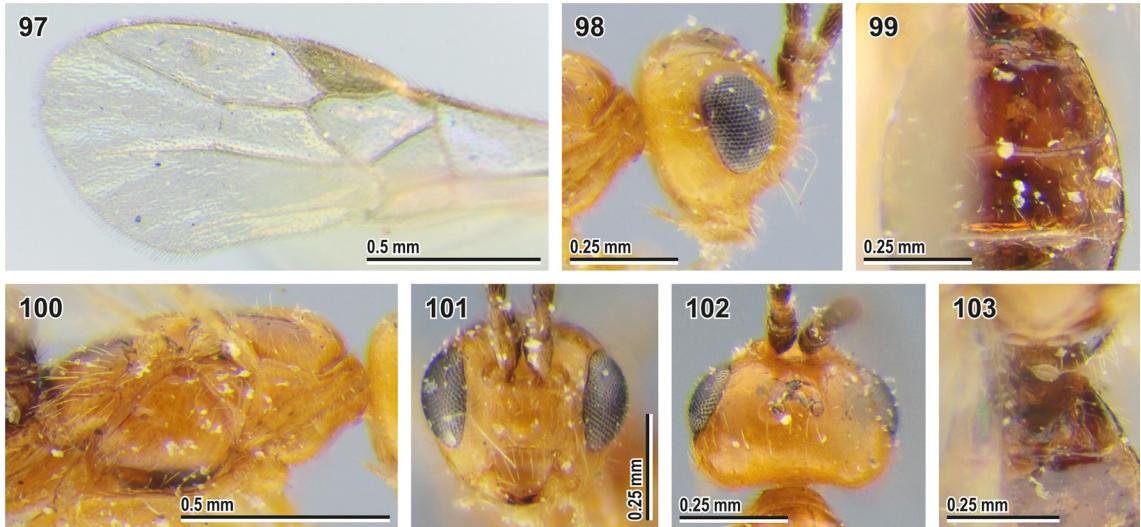
(Figs 97–103)

Bracon persimilis Telenga, 1936: 209; Tobias, 1976: 69 (in key, synonymised with *B. nigriventris*); Tobias et al., 1986: 147 (in key, as a synonym of *B. nigriventris*); Belokobylskij, Tobias, 2000: 162 (in key, as a synonym of *B. nigriventris*).

Material examined. RUSSIA (ZISP). Chechen Republic: Paraboch forestry, 1 female (lectotype; designated here; Figs 97–103; plate-mounted, apices of antennae and right fore tarsus missing), 15.VII.1927 (A.N. Kirichenko) [golden circular label, “леснич.[ество] Парабоч Кизл.[ярский] окр.[округ] Терск.[ой обл.] [А.] Кириченко 15 VII 1927”, “*Bracon persimilis* sp. n., N. Telenga”, “Syntypus”, “Lectotypus *Bracon persimilis* Telenga, 1936, design. Samartsev, 2019”].

Diagnosis. The characters distinguishing the species listed above are presented in the following preliminary key (based mostly on the type material):

1. Second metasomal tergite medially 0.65 times as long as third tergite (Fig. 73). Apical width of first metasomal tergite 1.8 times larger than median length of second tergite. Basal width of second metasomal tergite 2.5 times larger than its median length. – Second metasomal tergite striate, with traces of dorsolateral longitudinal impressions. Vein 3-SR of fore wing 2.7 times longer than vein r (Fig. 69). Mesosoma 1.8 times longer than its maximum height (Fig. 72). Marginal cell 2.7 times longer than distance from its apex to apex of wing *Bracon fortipes* Wesmael



Figs 97–103. *Bracon (Bracon) persimilis* Telenga, 1936 (lectotype, female). 97 – fore wing; 98 – head, lateral view; 99 – second and third metasomal tergites, dorsal view; 100 – mesosoma, lateral view; 101 – head, front view; 102 – head, dorsal view; 103 – first metasomal tergite, dorsal view.

- Second metasomal tergite medially 0.8–1.1 times as long as third tergite (0.75 times in *B. crocatus*: Fig. 68). Apical width of first metasomal tergite 0.9–1.6 times as large as median length of second tergite. Basal width of second metasomal tergite 1.4–2.1 times larger than its median length 2
- 2. Marginal cell of fore wing 7.0 times longer than distance from its apex to apex of wing. Longitudinal diameter of eye 3.1 times longer than malar space (front view). Face width 1.5 times combined height of face and clypeus. First flagellomere 2.7 times longer than its apical width. Dorsal carinae of first metasomal tergite reaching posterior margin of tergite. – Mesosoma 1.5 times longer than its maximum height *Bracon nigriventris* Wesmael
- Marginal cell of fore wing 2.0–4.0 times longer than distance from its apex to apex of wing. Longitudinal diameter of eye 2.1–2.7 times longer than malar space (front view). Face width 1.7–2.1 times combined height of face and clypeus. First flagellomere 1.2–1.8 times longer than its apical width. Dorsal carinae of first metasomal tergite weakly curved toward apex or absent 3
- 3. Transverse diameter of eye (dorsal view) 1.7 times longer than temple. Mesosoma 1.5 times longer than its maximum height *Bracon indubius* Szépligeti
- Transverse diameter of eye (dorsal view) 1.0–1.5 times longer than temple. Mesosoma 1.6–2.5 times longer than its maximum height 4
- 4. Second metasomal tergite medially 0.75 times as long as third tergite (Fig. 68). Vein 3-SR 1.8 times longer than vein r. Vein 2-SR 1.6 times longer than vein r (Fig. 64). Width of hypoclypeal depression 1.8 times larger than distance from depression to eye (Fig. 66). – Face width 2.1 times combined height of face and clypeus *Bracon crocatus* Schmiedeknecht
- Second metasomal tergite medially 0.9–1.1 times as long as third tergite. Vein 3-SR 2.3–5.4 times longer than vein r. Vein 2-SR 2.0–3.3 times longer than vein r. Width of hypoclypeal depression 1.3–1.6 times larger than distance from depression to eye 5
- 5. Ovipositor sheath 0.60–0.70 times as long as fore wing, 1.6–2.1 times longer than hind tibia 6
- Ovipositor sheath 0.40–0.55 times as long as fore wing, 1.3–1.6 times longer than hind tibia 7
- 6. Transverse diameter of eye (lateral view) 0.95–1.05 times as long as minimum width of temple (Fig. 79). Longitudinal diameter of eye in lateral view 1.6 times larger than its transverse diameter. Vein 3-SR 1.3–1.4 times longer than vein 2-SR (Fig. 74) *Bracon iskilipus* Beyarslan et Tobias
- Transverse diameter of eye (lateral view) 1.4 times longer than minimum width of temple (Fig. 94). Longitudinal diameter of eye in lateral view 1.4 times larger than its transverse diameter. Vein 3-SR 1.8 times longer than vein 2-SR (Fig. 89) *Bracon lencoranus* Telenga

7. Vein 2-SR 2.0–2.3 times longer than vein r. Width of hypoclypeal depression 1.3–1.5 times larger than distance from depression to eye. Second metasomal tergite more or less widely sculptured, areolate-rugose, rugose or rugulose *Bracon fumigidus* Szépligeti
- Vein 2-SR 2.7–3.3 times longer than vein r. Width of hypoclypeal depression 1.6–1.7 times larger than distance from depression to eye. Second metasomal tergite weakly mainly smooth or very weakly granulate, with rugosity only around median area 8
8. Face medially and laterally smooth, weakly granulate only below toruli (Fig. 83). Second metasomal tergite anteromedially rugose (Fig. 88). Hind femur 2.7–2.8 times longer than wide *Bracon laticeps* Telenga
- Face entirely granulate (Fig. 101). Second metasomal tergite anteromedially weakly granulate to smooth (Figs 99, 103). Hind femur 3.2 times longer than wide *Bracon persimilis* Telenga

On the taxonomic position of *Bracon planinotus* Tobias, 1957

Examination of the lectotype of *Bracon longulus* made it obvious that *B. planinotus* falls within its variation limits and is, therefore, synonymised.

***Bracon (Bracon) longulus* Thomson, 1892**

(Figs 104–111)

Bracon longulus Thomson, 1892: 1809; Papp, 1969b: 181.

Bracon planinotus Tobias, 1957: 487; **syn. nov.**

Material examined. SWEDEN (MZLU). Scania: Pålsgjö, 1 female (lectotype of *Bracon longulus*; designated by Papp, 1969b: 181; Fig. 110), [“Pål”, “Sweden, Pålsgjö”, “Lectotypus *Bracon longulus* Thoms design. 1968. Papp”, “1965 156”, “ZML.2005 454”]. RUSSIA (ZISP). Samara Province: SE of Bakhilova Polyana, meadow, 1 female, 13.VII.2010 (K. Samartsev); Bezenchuk, 1 female, 10.VI.2012 (K. Samartsev); same locality and collector, 3 females, 5 males, 4.07.2012; N of Upravlencheskiy, oak forest, 1 male, 7.VIII.2012 (K. Samartsev). Volgograd Province: Kamyshin, forest belt, 1 female (holotype of *Bracon planinotus*; Figs 104–109, 111), 20.VII.1950 (G. Viktorov) [“Камышин, лесополосы, Викторов, 20.VII.1950”, “*Bracon planinotus* Tobias ТИП, опр. Тобиас”, “Holotypus”]. Astrakhan Province: Lake Baskunchak, steppe, ravine forest, 1 female, 8–13.VI.2004 (S. Belokobylskij).

Diagnosis. Within the Western Palaearctic species of the genus *Bracon* with long ovipositor (with the sheath at least four times longer than hind tibia), smooth metapleural sulcus, smooth margin of the median area of the first metasomal tergite and smooth suture between second and third metasomal tergites, *B. longulus* may be identified using the following key.

1. Longitudinal diameter of eye in lateral view about 1.8 times larger than its transverse diameter. Ovipositor sheath about 4 times longer than hind tibia and just somewhat longer than fore wing *Bracon pineti* Thomson
- Longitudinal diameter of eye in lateral view 1.5–1.6 times larger than its transverse diameter (Fig. 105). Ovipositor sheath about 5 times longer than hind tibia and 1.5 times longer than fore wing (Fig. 104) 2
2. Fore wing vein 2-SR+M 0.5 times as long as vein r; vein 3-SR 2.7 times longer than vein r. Longitudinal diameter of eye (frontal view) 3.5–3.6 times larger than malar space. Mesosoma about 1.2 times longer than high *Bracon dolichurus* Marshall
- Fore wing vein 2-SR+M 0.2 times as long as vein r; vein 3-SR 2.0 times longer than vein r (Fig. 104). Longitudinal diameter of eye (frontal view) 3.1 times larger than malar space (Fig. 106). Mesosoma about 1.6 times longer than high 3
3. Transverse diameter of eye 1.4 times larger than minimum width of temple (lateral view). Median length of first tergite (measured from apex of petiolar adductor tubercle) somewhat larger than its apical width. Notauli impressed in anterior part of mesoscutum *Bracon trypanophorus* Marshall
- Transverse diameter of eye 1.9 times larger than minimum width of temple (lateral view; Fig. 105). Median length of first tergite (measured from apex of petiolar adductor tubercle) 1.3 times larger than its apical width (Fig. 110). Notauli not impressed (Fig. 108) *Bracon longulus* Thomson



Figs 104–111. *Bracon (Bracon) longulus* Thomson, 1892; *B. planinotus* Tobias, 1957 (104–109, 111 – holotype, female); *B. longulus* Thomson, 1892 (110 – lectotype, female). 104 – habitus, lateral view; 105 – head, lateral view; 106 – head, front view; 107 – head, ventrolateral view; 108 – head and mesoscutum, dorsal view; 109 – head and mesosoma, lateral view; 110 – first metasomal tergite, dorsal view; 111 – apex of ovipositor.

Craspedolcus Enderlein, 1920

Craspedolcus Enderlein, 1920: 92; Li et al., 2017: 41 (summary of the taxonomic history).

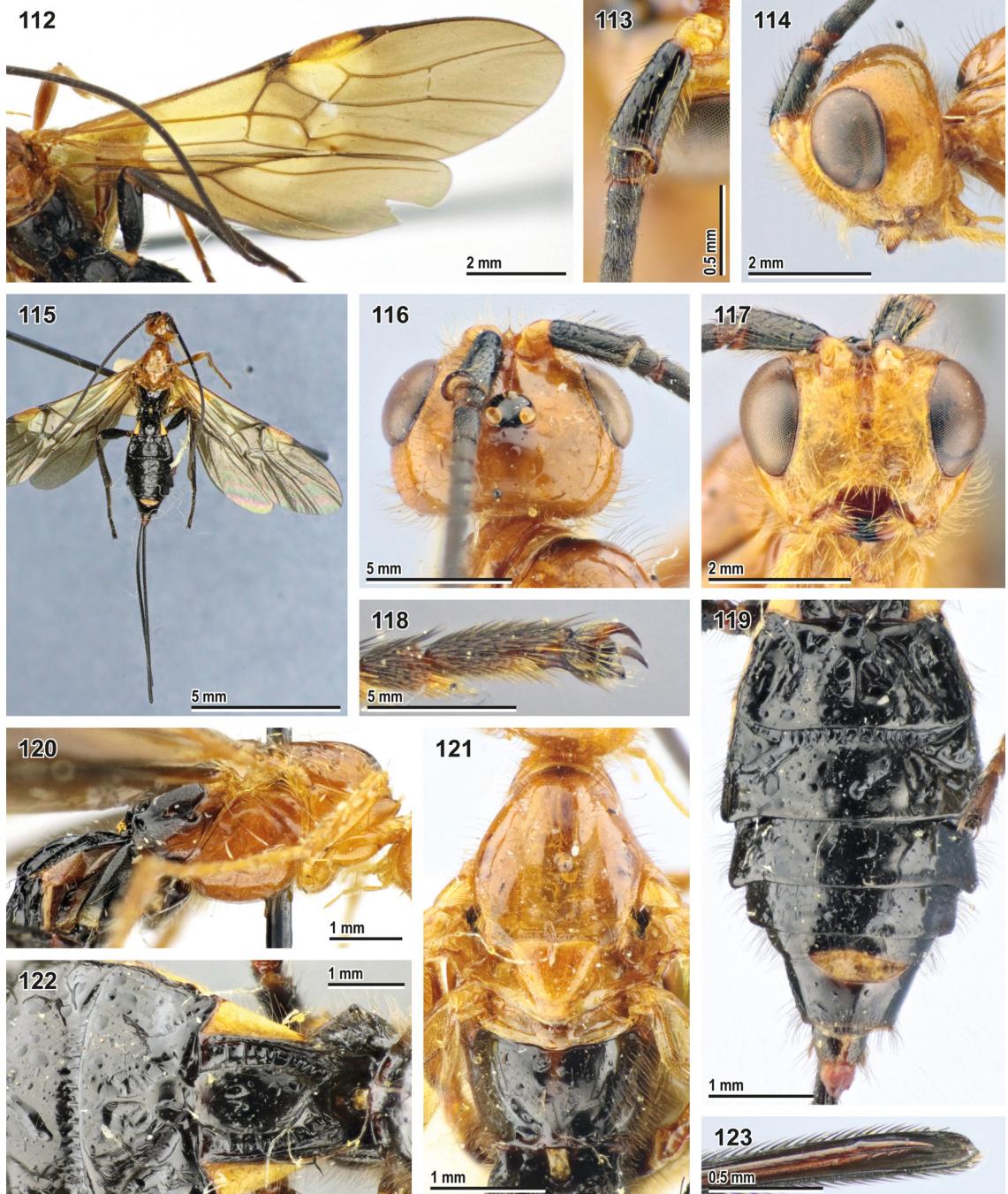
Type species: *Craspedolcus trisulcatus* Enderlein, 1920.

Craspedolcus kurentzovi (Belokobylskij, 1986), comb. nov.

(Figs 112–123)

Ipobracon kurentzovi Belokobylskij, 1986: 33; Belokobylskij, Tobias, 2000: 183 (assigned to the genus *Callibracon*).

Material examined. RUSSIA (ZISP). Primorskiy Territory: 70 km SW of Olga, forest, 1 female (holotype; Figs 112–122), 25.VII.1979 (S. Belokobylskij) [=“Приморск. кр., 70 км Ю.-З. Ольги, Белохобыльский, лес, 25.VII.1979”, “Holotypus



Figs 112–123. *Craspedolcus kurentzovi* (Belokobylskij, 1986) (112–122 – holotype, female, 123 – non-type, female). 112 – wings; 113 – base of antenna; 114 – head, lateral view; 115 – habitus, dorsal view; 116 – head, dorsal view; 117 – head, front view; 118 – apex of hind tarsus; 119 – metasoma, dorsal view; 120 – mesosoma, lateral view; 121 – mesosoma, dorsal view; 122 – first and second metasomal tergites, dorsal view; 123 – apex of ovipositor.

Iopbracon kurentzovi Belokobylskij”; 20 km SW of Krounovka, Medveditsa River, at light, 1 female (Fig. 123), 12.VIII.1999 (S. Sinev); 10 km ENE of Posiet, forest, glades, 1 female, 6 & 9.VIII.2013 (S. Belokobylskij).

Diagnosis. *Craspedolcus kurentzovi* differs from the Oriental species of the genus by the following characters which also modify the diagnosis of the genus (Li et al., 2017): scape 2.3–2.5 times longer ventrally than its maximum width (Fig. 113); subposterior grooves on third and fourth metasomal tergites very

weak and shallow (Figs 119, 122); median carina of the first metasomal tergite almost indistinct (Fig. 122); second metasomal tergite mainly smooth, with short rugae along borders of elevated structures; head, most of mesosoma and fore and middle legs reddish-brown, hind legs, propodeum and metasoma black; wing membrane strongly infuscate in distal half, yellowish in proximal half and below pterostigma.

Remarks. With the inclusion of *C. kurentzovi* the distribution of the genus *Craspedolcus* Enderlein is enlarged with the East Palaearctic region.

Doggerella Quicke, Mahmood et Papp, 2011

Doggerella Quicke, Mahmood et Papp, 2011 in Mahmood et al., 2011: 2.

Type species: *Doggerella turneri* Mahmood, Quicke et Papp, 2011.

***Doggerella chasanica* (Tobias, 2000)**

Bracon chasanicus Tobias, 2000 in Belokobylskij, Tobias, 2000: 148.

Doggerella (Lelejobracon) chasanica: Samartsev, 2016: 124.

Bracon bitumor Papp, 2018: 26, **syn. nov.**

Bracon planitibiae Yang, Cao et Gould, 2019 in Cao et al., 2019: 430, **syn. nov.**

Remarks. The morphology of *D. chasanica* has been discussed in its recent redescription (Samartsev, 2016). The descriptions of *B. planitibiae* and *B. bitumor* provide enough information to conclude that all three taxa are conspecific.

***Gelasinibracon* Quicke, 1989**

Gelasinibracon Quicke, 1989: 297; Quicke, Ingram, 1993: 301 (in key).

Type species: *Gelasinibracon sedlaceki* Quicke, 1989.

Pappobracon Tobias, 2000 in Tobias, Belokobylskij, 2000: 150 (as a subgenus of the genus *Bracon*). Type species: *Bracon nodulosus* Papp, 1998.

***Gelasinibracon (Pappobracon) nodulosus* (Papp, 1998), comb. nov.**

(Figs 124–131)

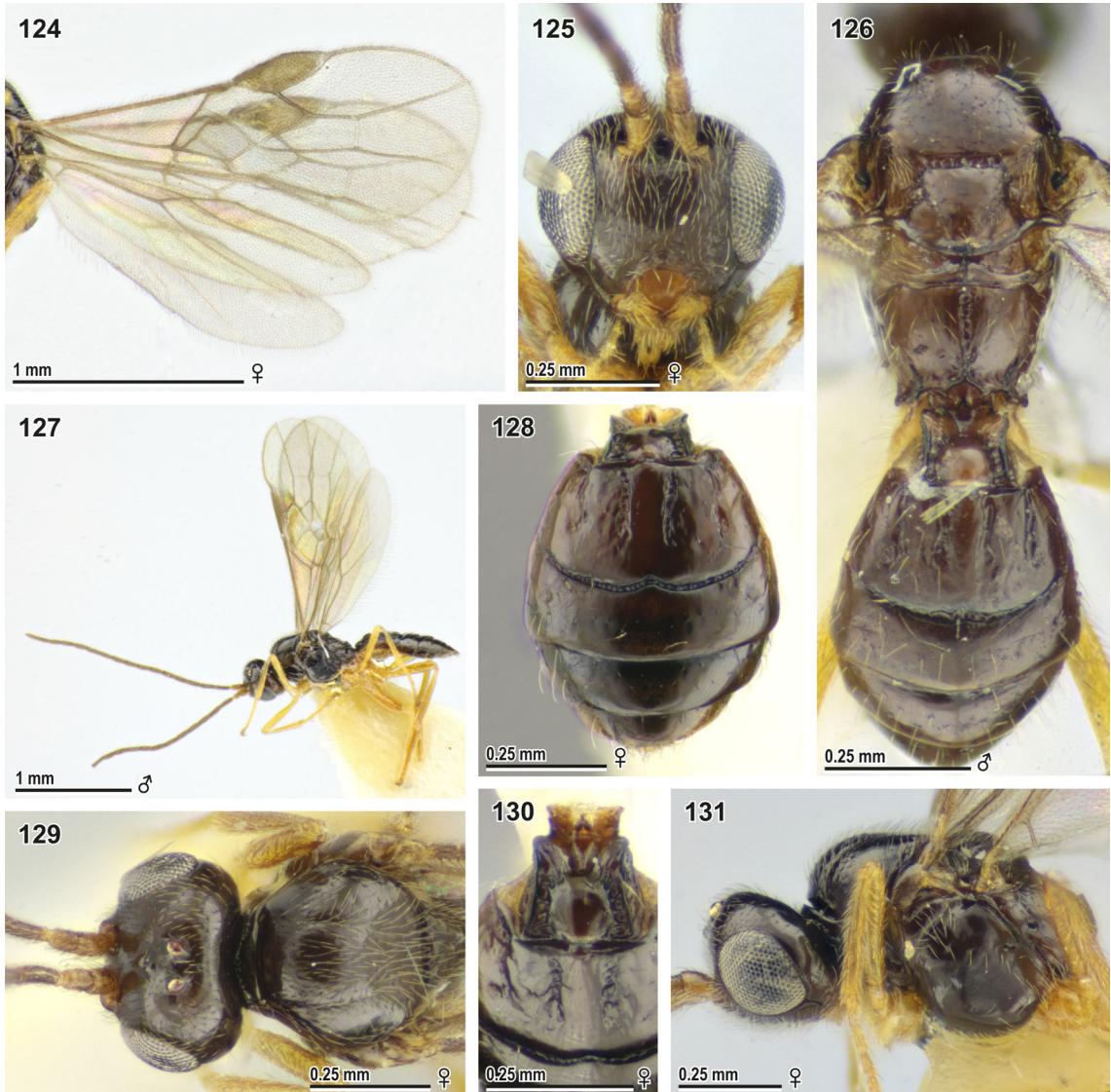
Bracon (Foveobracon) nodulosus Papp, 1998: 102; Belokobylskij, Tobias, 2000: 150 (in key, assigned to the subgenus *Pappobracon*).

Material examined. KOREAN PENINSULA (HNHM). 1 female (holotype), “Korea, Kangwon Prov., Kumgang-san, Samil-po”, “No. 1324. 18.VI.1988. O. Merkl & Gy. Szél”, “Holotypus *Bracon (Foveobracon) nodulosus* sp. n. Papp 1997”, “Hym. Typ. No. 7751 Mus. Budapest”. CHINA (ZISP). Zhejiang Province: Linan County, West Tianmu Mt., 1 male, 16–17.IX.2000 (S. Belokobylskij). JAPAN (ZISP). Kumamoto, Momiki, 700 m, Izumi-mura, 1 female, 1 male, 20.VII.1992 (V. Makarkin).

Remarks. The second species attributed to the subgenus *Pappobracon* by V.I. Tobias (Belokobylskij, Tobias, 2000), *Bracon pinguis* Papp, 1998, in fact belongs to the subgenus *Foveobracon* Tobias sensu Papp (1998) of the genus *Bracon*.

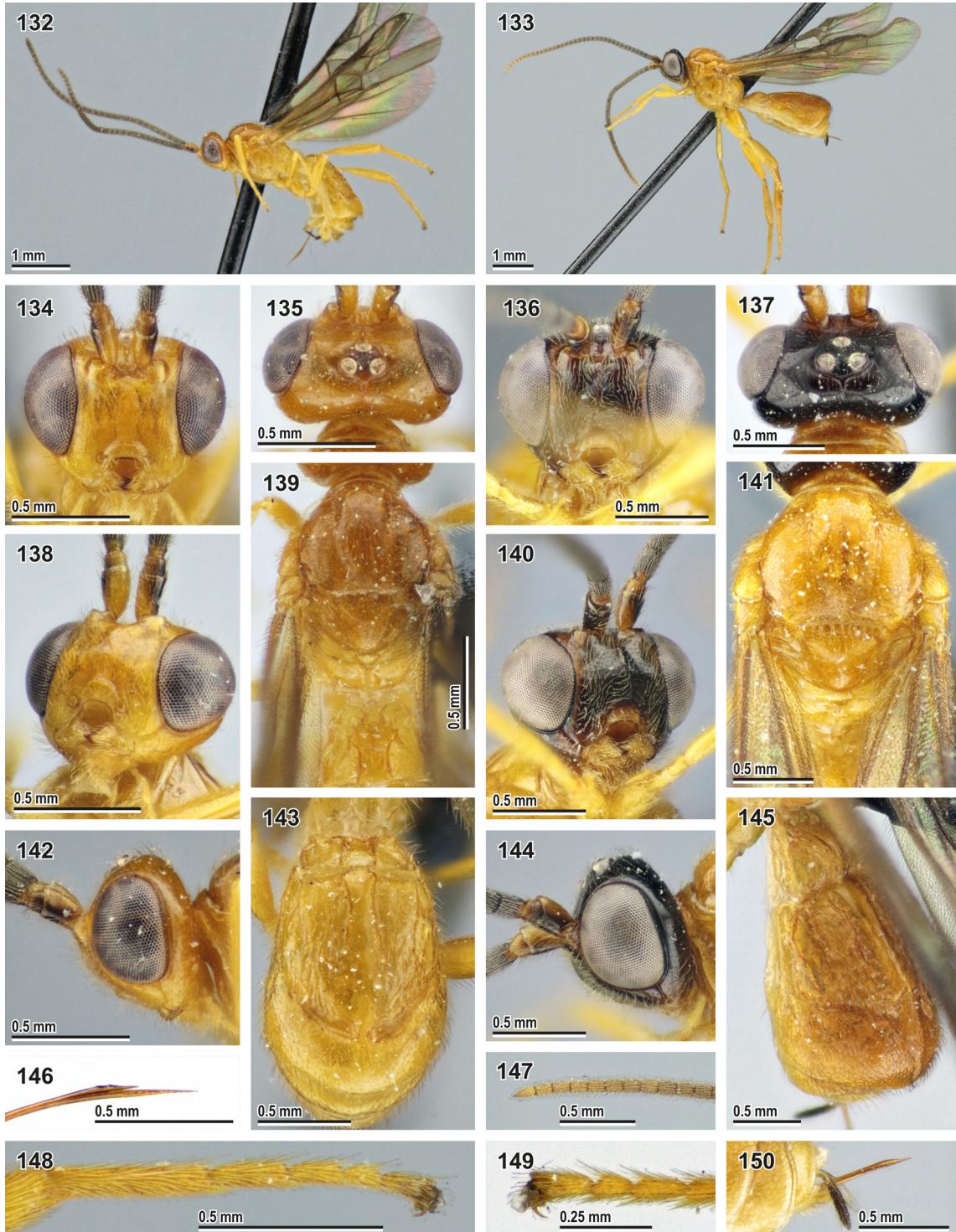
Diagnosis. The species of the genus *Gelasinibracon* may be separated as follows:

1. Vertex without mid-longitudinal sulcus (Fig. 129). Propodeum with simple mid-longitudinal keel in apical third and with deep crenulate longitudinal impression in basal two-thirds (Fig. 126). Median area of metanotum with complete median carina. Dorsal carinae of first metasomal tergite absent (Fig. 130). Sternauli absent (Fig. 131). (Subgenus *Pappobracon* Tobias). Maxillary palp longer than eye height (lateral view). First flagellomere 3.0–3.1 times longer than its apical width, middle flagellomeres about 2.5 times and penultimate flagellomeres 2.6–2.8 times longer than wide. POL 1.3 times Od (Fig. 129). Median length of first metasomal tergite (measured from apex of petiolar adductor tubercle) 0.9 times as large as median length of second tergite (Fig. 130). Fore wing vein 2-SR+M 0.2 times as long as vein m-cu (Fig. 124). Hind wing vein R1 2.8 times longer than vein r-m. Propodeal spiracle round. Hind tarsus with normal setosity. Wing membrane weakly darkened *Gelasinibracon (Pappobracon) nodulosus* Papp



Figs 124–131. *Gelasinibracon (Pappobracaon) nodulosus* (Papp, 1998) (non-type; 124, 125, 128–131 – female; 126, 127 – male). 123 – wings; 124 – head, front view; 125 – propodeum and base of metasoma, dorsal view; 126 – habitus, lateral view; 127 – metasoma, dorsal view; 128 – head and mesoscutum, dorsal view; 129 – first metasomal tergite; 130 – head and mesosoma, lateral view.

– Vertex with more or less developed mid-longitudinal sulcus (Figs 135, 137). Propodeum with complete and very high keel and without deep crenulate longitudinal impression (Figs 139, 141). Median area of metanotum with incomplete median carina. Dorsal carinae of first metasomal tergite high and separately reaching posterior margin of tergite (Figs 139, 143, 145). Sternauli deep, pit-like (Figs 132, 133). (Subgenus *Gelasinibracon* Quicke s. str.). Maxillary palp shorter than eye height (lateral view). First flagellomere 1.3–1.6 times longer than its apical width, middle flagellomeres 1.3–1.4 times and penultimate flagellomere about 1.6 times longer than wide (Fig. 147). POL 0.80–0.95 times Od (Figs 135, 137). Median length of first metasomal tergite (measured from apex of petiolar adductor tubercle) 0.5–0.6 times as large as median length of second tergite. Fore wing vein 2-SR+M 0.5–0.6 times as long as vein m-cu. Hind wing vein R1 1.7–2.0 times longer than vein r-m. Propodeal spiracle vertical. Hind tarsus with dense setae ventrally (Figs 148, 149). Wing membrane brownish darkened (Figs 132, 133) 2



Figs 132–150. *Gelasinibracon (Gelasinibracon) sedlaceki* Quicke, 1989 (132, 134, 135, 138, 139, 142, 143, 146, 148 – paratype, female); *G. (G.) simplicicaudatus* Quicke, 1989 (133, 136, 137, 140, 141, 144, 145, 147, 149, 150 – paratype, female). 132, 133 – habitus, lateral view; 134, 136 – head, front view; 135, 137 – head, dorsal view; 138, 140 – head, anterolateral view; 139, 141 – mesosoma, dorsal view; 142, 144 – head, lateral view; 143, 145 – first–third metasomal tergites, dorsal or dorsolateral view; 146, 150 – apex of ovipositor; 147 – apex of antenna; 148 – hind tarsus; 149 – tarsal claw of middle leg.

2. Vertex with shallow mid-longitudinal impression (Fig. 132). Apex of ovipositor looking bidental, with dorsal nodus and notch, and with ventral serration (Fig. 146). Second metasomal tergite medially 2.6 times longer than third tergite (Fig. 143). Fore wing vein r arising from 0.47 of pterostigma length (slightly before its middle). Sublateral carinae of propodeum almost reaching spiracle. Furrows delineating median area and dorsolateral impressions on second metasomal tergite smooth (Fig. 143). Suture between second and third tergites smooth
..... *Gelasinibracon (Gelasinibracon) sedlaceki* Quicke
- Vertex with deep mid-longitudinal sulcus (Fig. 133). Apex of ovipositor without nodus and ventral serration (Fig. 150). Second metasomal tergite medially 1.5 times longer than third tergite (Fig. 145). Fore wing vein r arising from 0.43 of pterostigma length (distinctly before its middle). Sublateral carinae of propodeum reaching anterior side of propodeum. Furrows delineating median area and dorsolateral impressions on second metasomal tergite crenulated (Fig. 145). Suture between second and third tergites crenulated *Gelasinibracon (Gelasinibracon) simplicicaudatus* Quicke

Corrections and additions for locality data in the World Catalogue of Ichneumonoidea (Taxapad)

The data not presented or erroneously listed in Taxapad (Yu et al. 2016) are presented below.

***Atanycolus albiscutis* Telenga, 1936 (= *Ichneumon denigrator* Linnaeus, 1758)**

RUSSIA: Ulyanovsk Province (Telenga, 1936) – not included in Yu et al. (2016).

***Atanycolus denigrator* (Linnaeus, 1758)**

RUSSIA: Republic of Karelia (Impilakhti, Valamo: Hellén, 1927) – misinterpreted as Finland in Yu et al. (2016).

***Bracon abbreviator* Nees, 1834**

RUSSIA: Republic of Karelia, Velikaya Niva (Hellén, 1957) – not included in Yu et al. (2016).

***Bracon abscissor* Nees, 1834 (= *Bracon abbreviator* Nees, 1834)**

UKRAINE: Skelivka (“Głęboka kolo Felsztyna”: Niezabitowski, 1910) – misinterpreted as Poland in Yu et al. (2016).

***Bracon ahngeri* Telenga, 1936**

CHINA (Chen, Yang, 2006): *Jilin, Hubei, Hunan, Yunnan, Fujian* – the specimen on image 24 (p. 264, l.c.) has the deep malar suture; thus, indications for China are based on a wrong taxon concept and are to be excluded from the distribution of the species.

***Bracon anthracinus* Nees, 1834**

RUSSIA: Krasnoyarsk Territory (Belokobylskij, Tobias, 2000) – not included in Yu et al. (2016).

***Bracon armeniacus* Telenga, 1936**

TURKEY (“Turkish Armenia”: Tobias et al., 1986) – misinterpreted as Armenia in Yu et al. (2016).

***Bracon atrator* Nees, 1834**

RUSSIA: Bashkortostan Republic (Telenga, 1936) – not included in Yu et al. (2016).

***Bracon camellatus* Telenga, 1936 (= *Bracon jaroslavensis* Telenga, 1936)**

RUSSIA: Tomsk Province (Telenga, 1936) – not included in Yu et al. (2016).

***Bracon cingulator* Szépligeti, 1901**

RUSSIA: Krasnodar Territory (Belokobylskij, Tobias, 2000) – misinterpreted as Krasnoyarsk Territory in Yu et al. (2016).

***Bracon crassiceps* Thomson, 1892**

RUSSIA (Hellén, 1957): *Republic of Karelia, Murmansk Province* – not included in Yu et al. (2016).

***Bracon depressiusculus* Szepligeti, 1904 (= *Bracon subcylindricus* Wesmael, 1838)**

RUSSIA: *Bashkortostan Republic* (Telenga, 1936) – misinterpreted as Sverdlovskaya Province in Yu et al. (2016).

***Bracon erythrostictus* Marshall, 1885 (= *Bracon erraticus* Wesmael, 1838)**

RUSSIA: *Chelyabinsk Province* (Telenga, 1936) – misinterpreted as Kazakhstan in Yu et al. (2016); *Krasnodar Territory* (Telenga, 1936) – not included in Yu et al. (2016).

***Bracon exhilarator* Nees, 1834**

RUSSIA: *Murmansk Province* (Ponoj: Hellén, 1957), *Bashkortostan Republic, Republic of Sakha (Yakutia)* (Telenga, 1936) – not included in Yu et al. (2016).

***Bracon falsus* Kokujev, 1913 (= *Bracon fallax* Szépligeti, 1901)**

RUSSIA: *Orenburg Province* (Kokujev, 1913) – misinterpreted as Samara Province in following publications (Telenga, 1936, Yu et al., 2016); originally was indicated as collected in Mogutovo volost of Samara guberniya, which territory now mostly belongs to Orenburg Province.

***Bracon fulvipes* Nees, 1834**

TAJIKISTAN (Tobias, 1961b) – not included in Yu et al. (2016).

***Bracon fumipennis* Thomson, 1892**

AZERBAIJAN – wrong indication in Yu et al. (2016) with the reference to Telenga (1936).

RUSSIA (Telenga, 1936): *Kemerovo Province, Altay Territory; ABKHAZIA* (Telenga, 1936) – not included in Yu et al. (2016).

RUSSIA: *Leningradskaya Province*, Repino (“Kuokkala”: Hellén, 1931) – misinterpreted as Finland in Yu et al. (2016).

***Bracon leptus* Marshall, 1897**

RUSSIA (Tobias, 1961b): *Ulyanovsk and Volgograd Provinces, Stavropol Territory; ARMENIA* (Tobias, 1961a); AZERBAIJAN, TURKMENISTAN, TAJIKISTAN (Tobias, 1961b) – not included in Yu et al. (2016).

***Bracon longicauda* Thomson, 1892 (= *Bracon atrator* Nees, 1834)**

RUSSIA: *Leningradskaya Province*, Repino (Kuokkala; Hellén, 1931) – misinterpreted as Finland in Yu et al. (2016).

***Bracon longulus* Thomson, 1892**

RUSSIA: *Leningradskaya Province*, Vyborg (“Viborg”: Hellén, 1957) – not included in Yu et al. (2016).

***Bracon mediator* Nees, 1834**

RUSSIA: *Krasnodar Territory* (Belokobylskij, Tobias, 2000) – misinterpreted as Krasnoyarsk Territory in Yu et al. (2016).

***Bracon megapterus* Wesmael, 1838**

RUSSIA: *Republic of Karelia, Mikhaylovskoe* (Kuujärvi: Hellén, 1957) – not included in Yu et al. (2016).

***Bracon minutator* (Fabricius, 1798)**

RUSSIA: *Orenburg Province* (Kokujev, 1913) – misinterpreted as Samara Province in Yu et al. (2016); originally was indicated as collected in Mogutovo volost of Samara guberniya which territory now mostly belongs to Orenburg Province.

***Bracon obscurator* Nees, 1811**

RUSSIA: *Murmansk Province*: Kuzomen, Ponoj (Hellén, 1957); UKRAINE: Zalischyky (“Zaleszczyki”: Niezabitowski, 1910) – not included in Yu et al. (2016).

***Bracon osculator* Nees, 1811**

RUSSIA: *Murmansk Province*, Kandalaksha (“Kantalaks”: Hellén, 1957); *Republic of Karelia*, Veli-kaya Niva (Hellén, 1957); *Vladimir Province* (Telenga, 1936); *Chukotka Autonomous Area* (Belokobylskij, Tobias, 2000) – not included in Yu et al. (2016).

***Bracon pallicarpus* Thomson, 1892**

RUSSIA: *Murmansk Province*, Kandalaksha (“Kantalaks”: Hellén, 1957) – not included in Yu et al. (2016).

***Bracon persimilis* Telenga, 1936**

RUSSIA: *Chechen Republic* (see label data above) – as Dagestan Republic in Yu et al. (2016).

***Bracon picticornis* Wesmael, 1838**

UKRAINE (“Zuzanówka pod Żurawnem”: Niezabitowski, 1910) – misinterpreted as Poland in Yu et al. (2016).

***Bracon praecox* Wesmael, 1838**

RUSSIA (Telenga, 1936): *Buryatia Republic*, *Primorskiy Territory*; CHINA: *Xinjiang* (Telenga, 1936) – not included in Yu et al. (2016).

***Bracon rufigaster* Szépligeti, 1901 (= *Bracon abbreviator* Nees, 1834)**

KAZAKHSTAN (Semirechye: Telenga, 1936) – misinterpreted as Zabaikalskiy Territory (“Chita Oblast”) in Yu et al. (2016).

***Bracon similis* Szépligeti, 1901 (= *Bracon erraticus* Wesmael, 1838)**

UKRAINE: Skelivka (“Głęboka kolo Felsztyna”: Niezabitowski, 1910) – misinterpreted as Poland in Yu et al. (2016).

***Bracon tundracola* Tobias, 2000**

RUSSIA: *Kamchatka Territory* (Belokobylskij, Tobias, 2000) – misinterpreted as Buryatia Republic in Yu et al. (2016).

***Coeloides abdominalis* (Zetterstedt, 1838)**

RUSSIA: *Leningradskaya Province* (Hellén 1927): Zelenogorsk (“Terijoki”), Vyborg (“Viborg”) – misinterpreted as Finland in Yu et al. (2016).

RUSSIA: *Republic of Karelia* (Hellén, 1957); *Samara Province*, *Ural*, *Irkutsk Province*, *Khabarovsk Territory* (Belokobylskij, Tobias, 2000) – not included in Yu et al. (2016).

***Coeloides bostrichorum* Giraud, 1872**

UKRAINE: Skelivka (“Felsztyń”: Niezabitowski, 1910) – misinterpreted as Poland in Yu et al. (2016).

***Coeloides stigmaticus* Hellén, 1927 (= *Bracon sordidator* Ratzeburg, 1844)**

RUSSIA: *Leningradskaya Province*, Zelenogorsk (Terijoki: Hellén, 1927) – misinterpreted as Finland in Yu et al. (2016).

***Coeloides ungaricus* Thomson, 1892**

RUSSIA: *Orenburg Province* (Kokujev, 1913) – misinterpreted as Samara Province in Yu et al. (2016); originally was indicated as collected in Mogutovo volost of Samara guberniya which territory now mostly belongs to Orenburg Province.

***Cyanopterus differens* (Telenga, 1936)**

Possibly Neotropical taxon (Tobias, Abdinbekova, 1973) wrongly indicated in Yaroslavl Province of Russia by Telenga (1936),

***Cyanopterus flavator* (Fabricius, 1793)**

RUSSIA: *Republic of Karelia* (Kirjavaltahti: Hellén, 1927) – misinterpreted as Finland in Yu et al. (2016).

***Cyanopterus obscuripennis* (Thomson, 1892)**

RUSSIA: *Republic of Sakha (Yakutia)* (Telenga, 1936) – not included in Yu et al. (2016).

***Cyanopterus rector* (Thunberg, 1822)**

RUSSIA: *Republic of Karelia* (Kirjavaltahti, Kivach: Hellén, 1927) – misinterpreted as Finland in Yu et al. (2016).

***Glyptomorpha desertor* (Fabricius, 1775) (= *Vipio pectoralis* Brullé, 1832)**

UKRAINE: Skelivka (“Filipkowce”: Niegabitowski, 1910) – misinterpreted as Poland in Yu et al. (2016).

***Glyptomorpha rossica* (Kokujev, 1898) (= *Ichneumon discolor* Thunberg, 1822)**

RUSSIA: *Orenburg Province* (Kokujev, 1913) – misinterpreted as Samara Province in Yu et al. (2016); originally was indicated as collected in Mogutovo volost of Samara guberniya which territory now mostly belongs to Orenburg Province.

***Iphiaulax impostor* (Scopoli, 1763)**

UKRAINE: Peniaky near Zolochiv (Niegabitowski, 1910) – misinterpreted as Poland in Yu et al. (2016).

***Pseudovipio variegatus* (Bohemian, 1853) (= *Bracon guttiventris* Thomson, 1892)**

RUSSIA: *Republic of Karelia*, Salmi (Hellén, 1927); *Leningradskaya Province* (Hellén, 1927): Zelenogorsk (Terijoki), Polyany (Nykyrka), Otradnoye (Pyhäjärvi), Zaporozhskoye (“Metsäpirtti”) – misinterpreted as Finland in Yu et al. (2016).

***Vipio appellator* (Nees, 1834)**

RUSSIA: *Leningradskaya Province*, Priozersk (“Kexholm”: Hellén, 1927) – misinterpreted as Finland in Yu et al. (2016).

***Vipio insectator* Kokujev, 1898**

RUSSIA: Saratov Province, Roslyakovo (Kokujev, 1907) – as Samara Province in Yu et al. (2016).

***Vipio nominator* (Fabricius, 1793) (= *Agathis longicauda* Boheman, 1853)**

RUSSIA: *Bashkortostan Republic* (Tobias et al., 1986) – misinterpreted as Buryatia Republic in Yu et al. (2016).

***Vipio schewyrewi* Kokujev, 1898 (= *Vipio sareptanus* Kawall, 1865)**

RUSSIA: Saratov Province, Roslyakovo (Kokujev, 1907) – as Samara Province in Yu et al. (2016).

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