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Twelve new Bracon Fabricius, 1804 species from the Western Palaearctic Region (Hymenoptera, Braconidae: Braconini)

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Abstract – The following twelve new *Bracon* Fabricius, 1804 species are described: *B.* (*Lucobracon*) *attilae* (Turkey), *B.* (*Glabobracon*) *dupleola* (Spain), *B.* (*Glabobracon*) *flamargo* (Bulgaria), *B.* (*Glabobracon*) *fucosus* (Denmark), *B.* (*Glabobracon*) *gijswijti* (Spain), *B.* (*Bracon*) *gumis* (Spain: Canary Islands), *B.* (*Glabobracon*) *latitergit* (Hungary), *B.* (*Lucobracon*) *merkli* (Hungary), *B.* (*Glabobracon*) *mopux* (Germany, Denmark, Romania, Sweden), *B.* (*Glabobracon*) *munki* (Denmark, Romania), *B.* (*Lucobacon*) *roznevani* (Algeria) and *B.* (*Bracon*) *xaxon* (Armenia). The types of the new species are deposited in the Museums Budapest, Helsinki and Leiden. With 132 figures.

Key words – *Bracon*, locality, depository, type condition, etymology, description, distribution, affinity.

INTRODUCTION

In this paper twelve new *Bracon* Fabricius, 1804 species are described from nine countries of the Western Palaearctic Region. The new species are assigned to subgenera based on the division proposed by Tobias (1957, 1961, 1986).

In the descriptions the following abbreviations are applied (after van Achterberg 1993: 4–5):

Forewing veins: *m–cu* = transverse medio-cubital or recurrent vein, *r* = first section of the radial vein, *r–m* = transverse radio-medial vein, *1–M* = basal vein, *2–M* = third section of the cubital vein, *1–R1* = first section of the metacarpal vein, *2–SR* = first transverse cubital vein, *3–SR* = second section of the radial vein, *1–SR–M* = first section of the cubital vein, *SR1* = third section of the radial vein.

Eye: OOL = shortest distance between hind ocellus and compound eye, POL = shortest distance between hind two ocelli.

Surface sculpture terminologies are used after EADY (1968) and HARRIS (1979).

Depositories – The type material of the new species are deposited in the following institutions: DAZUH = Department of Applied Zoology, University of Helsinki, Finland; HNHM = Hungarian Natural History Museum, Budapest, Hungary; NNML = Nationaal Natuurhistorisch Museum, Leiden, Netherlands.

DESCRIPTIONS OF THE NEW TAXA

Bracon (Lucobracon) attilae sp. n.
(Figs 1–8)

Type material – Female holotype: Turkey, Siirt province, Sapur Dinlenme Yeri, 1 June 1989, leg. PODLUSSÁNY. It is in good condition: (1) glued on a pointed card by the fore part of its mesosternum, (2) right flagellum apically deficient. The holotype is deposited in the HNHM, Hym. Typ. No. 11886.

Etymology – The new species is dedicated to Mr. ATTILA PODLUSSÁNY, the well-known Hungarian specialist of Curculionoidea, a keen collector of insects, particularly hymenopterans, who collected the holotype.

Description of the female holotype – Body 3.1 mm long. Antenna as long as body and with 30 antennomeres. First flagellomere 2.5 times and penultimate flagellomere 1.25 times as long as broad, flagellum very faintly attenuating. Head in dorsal view (Fig. 1) transverse, almost 1.9 times as broad as long, eye not protruding and 1.4 times longer than temple, temple rounded, occiput excavate. Eye in lateral view (Fig. 2) 1.6 times as high as wide and almost 1.3 times wider than temple, temple beyond eye slightly narrowing ventrally. Oral opening fairly large, its horizontal diameter 1.4 times longer than shorstest distance between opening and eye. Head polished, face uneven, frons subgranulose.

Mesosoma in lateral view 1.4 times as long as high, polished. Notaulix indistinct. Propodeum polished, rugulose (Fig. 3) around lunule. Hind femur thin, 3.8 times as long as broad medially (Fig. 4). Claw moderately curved, its basal lobe small (Fig. 5).

Forewing slightly shorter than body. Pterostigma (Fig. 6) 2.8 times as long as wide and issuing *r* from its middle, *r* just shorter than width of pterostigma; second submarginal cell fairly wide, *3–SR* 1.3 times longer than *2–SR*; *SR1* just straight, 1.7 times longer than *3–SR* and approaching tip of wing. First discal cell widening proximally, *1–M* 2.3 times as long as *m–cu*, *1–SR–M* straight and 1.5 times longer than *1–M*.

First tergite quadrate (Fig. 7), as long as broad behind, with feebly broadening sides beyond pair of spiracles, scutum narrowing basally and together with its margin granulose, scutum anteriorly polished. Second tergite transverse, 2.8 times as broad behind as long and slightly longer than third tergite; suture between 2–3 straight, deep, smooth. Tergites

1–2 granulose, third tergite less granulose (Fig. 7), further tergites polished. Hypopygium less pointed, ovipositor sheath short, as long as hind tarsomeres 1–2 combined (Fig. 8), ovipositor concealed.

Antenna and body black. Palpi dark brown. Mandible yellowish brown. Tegula black. Tergites 2–3 with faint brownish tint. First sternite dirty white. Legs black to blackish, yellowish brown: fore tibia entirely, tibiae 2–3 on their proximal two-thirds and hind first tarsomere basally. Wings hyaline, pterostigma brown, veins light brown.

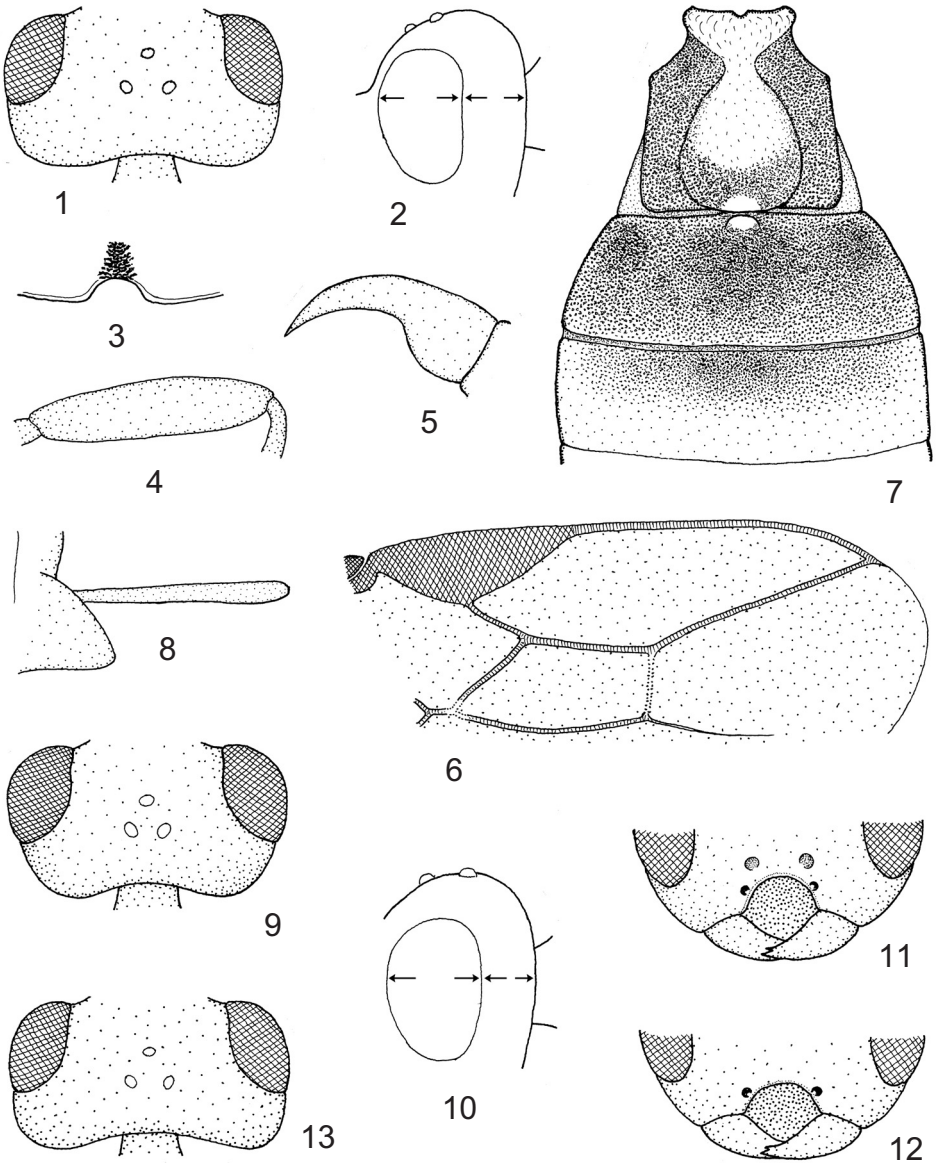
Male and host unknown.

Distribution – Turkey.

Taxonomic position – Within the subgenus *Lucobracon* FAHRINGER, 1927, *Bracon attilae* sp. n. is negrest to *Bracon mirus* SZÉPLIGETI considering their granulose sculptured second tergite and rather thin hind femur; the females of the two species can be distinguished as follows:

1(2) Head in dorsal view 1.6–1.7 times as broad as long, eye somewhat protruding (Figs 77 and 86 in PAPP 2005: 217). Second tergite less transverse, 2.1 times as broad behind as long, scutum less narrowing basally, posteriorly rugo-rugulose, its margin crenulate (Fig. 85 in PAPP 2005: 217). Claw less curved (Fig. 82 in PAPP 2005: 217). Antenna with 33–36 antennomeres. Ovipositor sheath as long as body. Body reddish yellow with variable blackish to black pattern. Female: 3.3–4.2 mm. – Sporadic in the Palaearctic Region
Bracon (*Lucobracon*) *mirus* SZÉPLIGETI, 1901

2(1) Head in dorsal view 1.9 times as broad as long, eye not protruding (Fig. 1). Second tergite transverse, 2.8 times as broad behind as long, scutum narrowing basally, posteriorly together with its margin granulose (Fig. 7). Claw more curved (Fig. 5). Antenna with 30 antennomeres. Ovipositor sheath short, as long as hind tarsomeres 1–2 combined. Body black. Female: 3.1 mm. – Turkey **Bracon (Lucobracon) attilae** sp. n.



Figs 1–13. *Bracon* (*Lucobracon*) *attilae* sp. n.: 1 = head in dorsal view, 2 = head in lateral view, 3 = lunule and rugulosity above it in propodeum, 4 = hind femur, 5 = claw, 6 = distal part of right forewing, 7 = tergites 1–3, 8 = hypopygium and ovipositor sheath. – *Bracon* (*Glabrobracon*) *dupleola* sp. n.: 9 = head in dorsal view, 10 = head in lateral view, 11 = head in frontal view. – *Bracon* (*Glabrobracon*) *variator* Nees, 1811: 12 = head in frontal view, 13 = head in dorsal view

Bracon (Glabrobracon) dupleola sp. n.
(Figs 9–11, 14–19)

Type material – Female holotype: Spain, Malaga, Torremolinos, 7 May 1978, leg. G. E. BOHART. The holotype is in good condition: (1) glued by the right mesopleuron direct to the insect pin, (2) left antenna deficient apically, with 22 antennomeres (or 20 flagellomeres). It is deposited in the HNHM, Hym. Typ. No. 11887.

Etymology – The specific epithet ("dupleola") is the abbreviated form of the name duplotentoriofoveola referring to the unusual pair of subtentorial pits on face above pair of tentorial pits (Fig. 11).

Description of the female holotype – Body 3.9 mm long. Right antenna as long as head, mesosoma and half of metasoma combined, and with 27 antennomeres. First flagellomere twice as long as broad, penultimate flagellomere cubic. Head in dorsal view transverse (Fig. 9), almost 1.9 times as broad as long, eye 1.6 times longer than temple, temple receded. Ocelli middle-sized, almost round, OOL 2.4 times length of POL. Eye in lateral view 1.5 times as high as wide and 1.6 times wider than temple, temple beyond eye slightly narrowing ventrally (Fig. 10, see arrows). Horizontal diameter of oral opening 1.6 times longer than shortest distance between opening and eye. Above pair of tentorial pits with a pair of subtentorial pits on face (Fig. 11). Head polished.

Mesosoma in lateral view stout, just longer than high, polished. Propodeum entirely polished. Hind femur 3.8 times as long as broad medially (Fig. 14). Claw curved and with a fairly large and pointed basal lobe (Fig. 15).

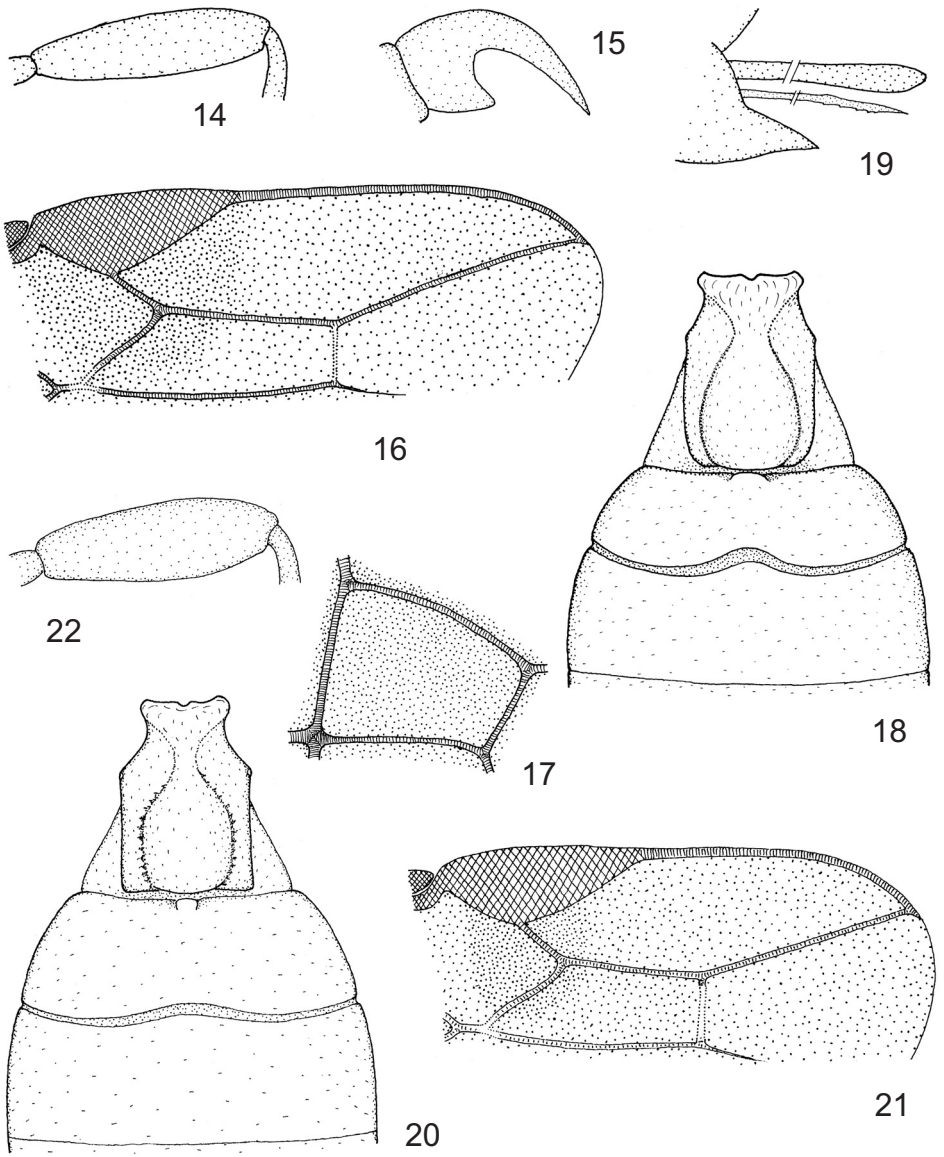
Forewing slightly longer than body. Pterostigma (Fig. 16) wide, 2.5 as long as wide and issuing *r* proximally from its middle, *r* 0.5 as long as width of pterostigma. Second submarginal cell long, *3–SR* three times as long as *r–m*, *3–SR* 1.7 times as long as *2–SR*; *SR1* almost strait, 1.5 times longer than *3–SR* and reaching tip of wing. First discal cell fairly high, *1–M* 1.5 times as long as *m–cu*, *1–SR–M* bent and 1.25 times as long as *1–M* (Fig. 17).

First tergite long (Fig. 18), twice as long as broad behind, before pair of spiracles less broadening, beyond spiracles parallel-sided and apically narrowing. Second tergite 3.5 times as broad behind as long laterally, third tergite somewhat longer than second tergite, suture between them deeply bisinuate, smooth (Fig. 18). Every tergite polished. Hypopygium pointed (Fig. 19), ovipositor sheath long, as long as hind tibia and tarsomeres 1–2 combined.

Body and antenna black. First tergite black, second tergite brown, third tergite light brown to yellow, further tergites brown to brownish, sternites pale yellow, hypopygium brownish. Legs black to blackish, fore and middle femora apically brownish yellow. Wings brown fumous, pterostigma and veins brown.

Male and host unknown.

Distribution – Spain.



Figs 14–22. *Bracon* (*Glabrobracon*) *dupleola* sp. n.: 14 = hind femur, 15 = claw, 16 = distal part of right forewing, 17 = first discal cell, 18 = tergites 1–3, 19 = hypopygium and ovipositor apparatus. – *Bracon* (*Glabrobracon*) *variator* NEES, 1811: 20 = tergites 1–3, 21 = distal part of right forewing, 22 = hind femur

Taxonomic position – Within the subgenus *Glabrobracon* FAHRINGER, 1927, *Bracon dupleola* sp. n. is closely allied to *Bracon variator* NEES in having their dark ground colour of body, length of ovipositor sheath and transverse head in dorsal view; the distinction between the two species is restricted to a few features:

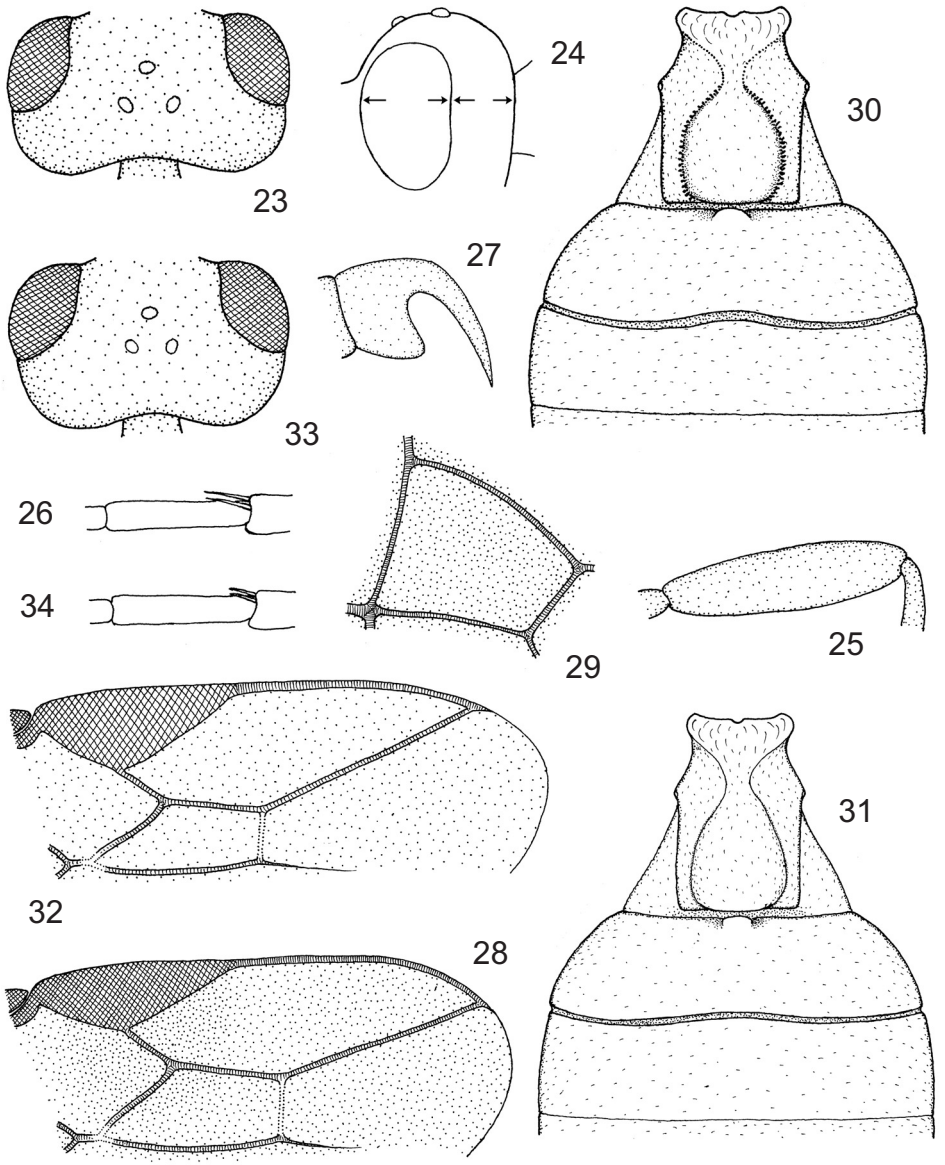
1(2) Face with a pair of tentorial pits as usual (Fig. 12). Temple in dorsal view rounded (Fig. 13). Suture between tergites 2–3 bisinuate, first tergite parallel-sided beyond pair of spiracles (Fig. 20). Penultimate flagellomere usually (1.6–)1.7–1.8 times as long as broad. Second submarginal cell less long, *3–SR* twice as long as *r–m* (Fig. 21). Hind femur 3–3.4 times as long as broad (Fig. 22). Tergites blackish to black, tergites 2–5 laterally reddish yellow. Female: 3–4.5 mm. – Palaearctic Region *Bracon* (*Glabrobracon*) *variator* NEES, 1811

2(1) Face, above pair of tentorial pits, with a pair of subtentorial pits (Fig. 11). Temple in dorsal view receded (Fig. 9). Suture between tergites 2–3 deeply bisinuate, first tergite apically narrowing (Fig. 18). Penultimate flagellomere cubic. Second submarginal cell long, *3–SR* three times longer than *r–m* (Fig. 16). Hind femur four times as long as broad (Fig. 14). Tergites black to brown, second tergite light brown to yellow. Female: 3.9 mm. – Spain **Bracon (Glabrobracon) dupleola** sp. n.

Bracon (Glabrobracon) flamargo sp. n.
(Figs 23–30)

Type material – Female holotype: Bulgaria, Rhodope Mts, Martsiganitsa, 5 July 1985, leg. J. PAPP. One female paratype: Bulgaria, Mts Rhodopes, Dobrostan, 1000 m, 6 July 1985, leg. J. PAPP. The holotype is in good condition: (1) glued on a pointed card by mesosternum, (2) pair of forewings slightly shrivelled distally and medio-longitudinally. The paratype is also in good condition: (1) glued on a pointed card by mesosternum, (2) left fore wing apically somewhat deficient. The holotype and the paratype are deposited in the HNHM, Hym. Typ. Nos 11888 (holotype) and 11889 (paratype).

Etymology – The specific epithet "flamargo" is the abbreviated form of "flavomarginis" referring to the dirty yellow hind margin of tergites 3–6.



Figs 23–34. *Bracon* (*Glabrobracon*) *flamargo* sp. n.: 23 = head in dorsal view, 24 = head in lateral view, 25 = hind femur, 26 = pair of spurs with basitarsus of hind leg, 27 = claw, 28 = distal part of right forewing, 29 = first discal cell, 30 = tergites 1–3. – *Bracon* (*Glabrobracon*) *brevicalcaratus* TOBIAS, 1986: 31 = tergites 1–3, 32 = distal part of right forewing, 33 = head in dorsal view, 34 = pair of spur with basitarsus of hind leg

Description of the female holotype – Body 4 mm long. Antenna somewhat (0.8 times) shorter than body and with 26 antennomeres. First flagellomere 1.7 times and penultimate flagellomere 1.2 times as long as broad. Head in dorsal view transverse (Fig. 23), 1.8 times as broad as long, eye 1.5 times longer than temple, temple distinctly rounded, occiput weakly excavated. Eye in lateral view 1.6 times as high as wide and nearly 1.4 times wider than temple, temple just narrowing ventrally (Fig. 24, see arrows). Horizontal diameter of oral opening somewhat longer than shortest distance between opening and eye. Head polished.

Mesosoma in lateral view 1.3 times as long as high, polished. Notaulix indistinct. Propodeum entirely polished. Hind femur 3.5 times as long as broad medially (Fig. 25). Inner spur of hind tibia as long as fourth tarsomere or one-third of basitarsus, outer spur indistinctly shorter than inner spur (Fig. 26). Claw curved with fairly large basal lobe (Fig. 27).

Forewing a bit longer than body. Pterostigma (Fig. 28) three times as long as wide and issuing *r* proximally from its middle, *r* just shorter than width of pterostigma, *3–SR* somewhat longer than *2–SR*, *SR1* straight, reaching tip of wing and twice as long as *3–SR*. First discal cell high, *1–M* nearly 1.8 times as long as *m–cu*, *1–SR–M* 1.3 times longer than *1–M* (Fig. 29).

First tergite (Fig. 30) 1.3 times as long as broad behind, pair of spiracles somewhat protruding and tergite parallel-sided beyond them, margin of scutum crenulate, otherwise together with further tergites polished. Second tergite transverse, almost 3.5 times as broad behind as long laterally and only a bit longer than third tergite medially; suture between tergites 2–3 bisinuate (Fig. 30). Hypopygium small and pointed, ovipositor sheath long, as long as hind tibia and hind tarsomeres 1–2 combined.

Body black. Scape black, flagellum blackish. Palpi brown. Tegula blackish. First tergite black, further tergites brown, latero-narrowly light brownish yellow, hind margin of tergites 3–6 light brownish yellow, tergites 7–8 entirely light brownish yellow. Legs ochre yellow, coxae black, trochanters partly, base of femora 1–2, distal end of tibiae 1–3 and tarsi 1–3 entirely blackish. Wings brownish fumous, pterostigma and veins blackish brown

Description of the female paratype – Similar to the holotype. Body 4 mm long. Antenna with 28 antennomeres. Hind femur 3.8 times as long as broad medially. Pteostigma 2.8 times as long as wide, *3–SR* and *2–SR* equal in length. First tergite 1.35 times as long as broad behind, beyond pair of spiracles with slightly converging sides (Fig. 47).

Male and host unknown.

Distribution – Bulgaria.

Taxonomic position – Within the subgenus *Glabrobracon* FAHRINGER, 1927, *Bracon flamargo* sp. n. would run to *B. brevicalcaratus* TOBIAS in TOBIAS' key (1986: 130–137) and original description (TOBIAS 1957: 491). The females of the two species are very similar to each other, however, can be distinguished by a few features fairly easy to recognize:

1(2) First tergite 1.5–1.6 times longer than broad behind, its scutum more narrowing anteriorly, tergites 2–3 either equal in length or third tergite a bit longer than second tergite, suture between them relatively narrow (Fig. 31). SR1 approaching tip of wing (Fig. 32). Temple in dorsal view rather receded, somewhat shorter than eye, head 1.7 times as broad as long (Fig. 33). Antenna with 20–21 antennomeres, penultimate flagellomere 1.5–1.6 times as long as broad. Inner spur of hind tibia very short, as long as one-fifth length of basitarsus (Fig. 34). Tergites black. Female: 2–3.5 mm. – Kazakhstan, Turkmenia
Bracon (*Glabrobracon*) *brevicalcaratus* TOBIAS, 1957

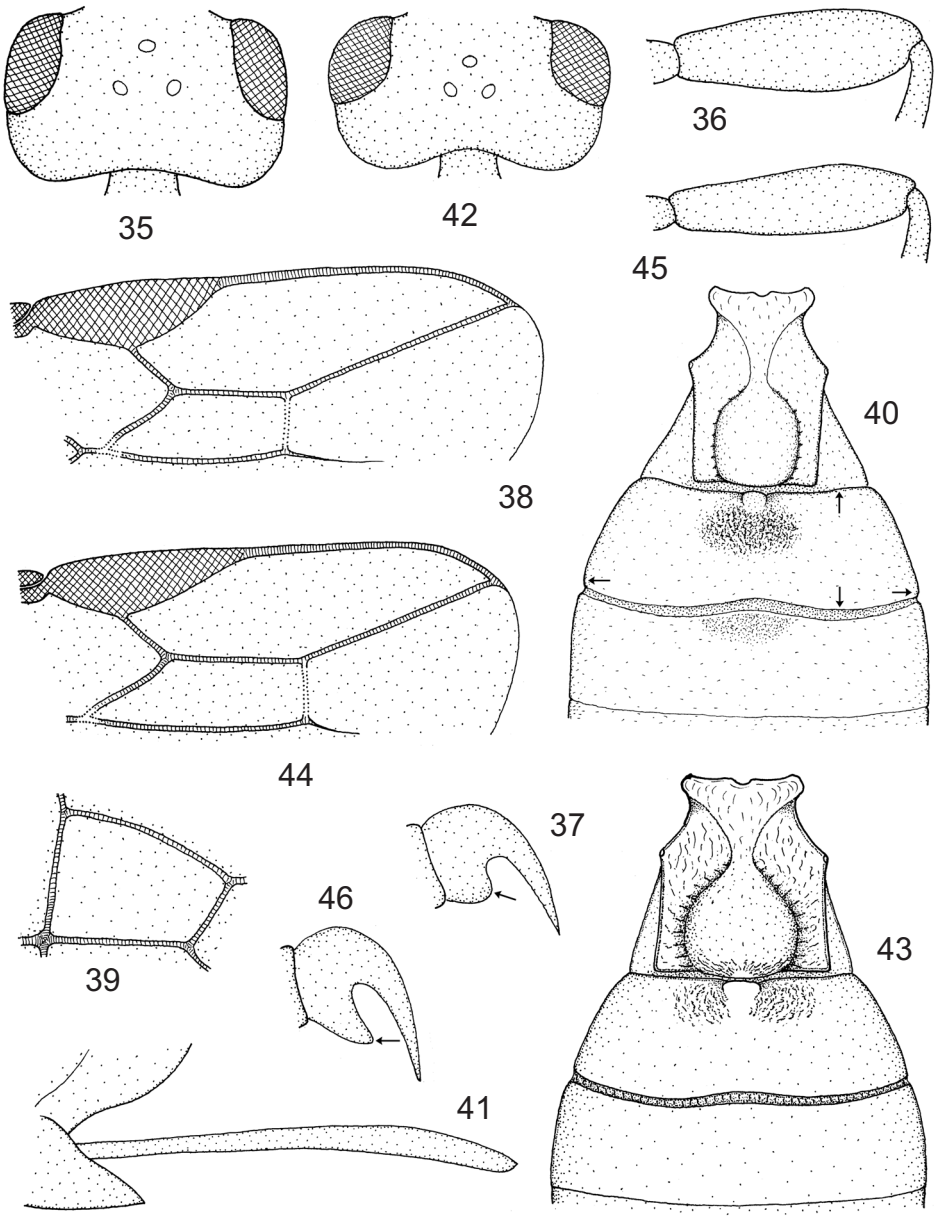
2(1) First tergite 1.3–1.35 times longer than broad behind, its scutum less narrowing anteriorly, second tergite somewhat longer than third tergite, suture between them relatively less narrow (Fig. 30). SR1 reaching tip of wing (Fig. 28). Temple in dorsal view rounded, eye 1.5 times longer than temple (Fig. 23). Antenna with 26–28 antennomeres, penultimate flagellomere 1.2–1.3 times as long as broad. Inner spur of hind tibia as long as one-third length of basitarsus (Fig. 26). Tergites brown. Female: 4 mm. – Bulgaria **Bracon (Glabrobracon) flamargo** sp. n.

In the original description (TOBIAS 1957: 491) the length of the inner spur of the hind tibia is given as one-fifth of basitarsus; the two female specimens, in the collection of the Hungarian Natural History Museum and from the locality Koksengir, Karagand (Turkmenia) and named by TOBIAS, are with longer spur: it is as long as one-third of the basitarsus.

Bracon (Glabrobracon) fucosus sp. n.
(Figs 35–41)

Type material – Female holotype: Denmark, West Julland, Haslund ne. of Ribe, 1 July 1984, leg. T. MUNK. It is in good condition: (1) glued on a pointed card by the hind four coxae–femora, (2) 4th flagellomere of the left flagellum missing. The holotype is deposited in the HNHM, Hym. Typ. No. 11890.

Etymology – The Latin name "fucosus" (pretence, deception) refers to the deceptive similar external appearance of the new species to that of *Bracon nigricollis*.



Figs 35–46. *Bracon* (*Glabrobracon*) *fucosus* sp. n. (holotype): 35 = head in dorsal view, 36 = hind femur, 37 = claw, 38 = distal part of right forewing, 39 = first discal cell, 40 = tergites 1–3, 41 = hypygium and ovipositor sheath. – *Bracon* (*Glabrobracon*) *nigricollis* WESMAEL, 1838: 42 = head in dorsal view, 43 = tergites 1–3, 44 = distal part of right forewing, 45 = hind femur, 46 = claws

Description of the female holotype – Body 2.6 mm long. Antenna about as long as body and with 24 antennomeres (right antenna). Flagellomeres long: first flagellomere 2.5 times and penultimate flagellomere twice as long as broad. Head in dorsal view transverse (Fig. 35), 1.6 times as broad as long, eye almost 1.6 times longer than temple, temple rounded, occiput excavated. Ocelli middle sized, OOL almost twice as long as POL. Eye in lateral view 1.3 times as high as wide, 1.5 times wider than temple, temple ventrally just narrowing. Oral opening: its horizontal diameter 1.4 times longer than shortest distance between opening and eye. Head polished.

Mesosoma in lateral view 1.6 times as long as high, polished. Notaulix anteriorly weakly distinct. Propodeum entirely polished. Hind femur thick, 2.9 times as long as broad distally (Fig. 36). Claw curved, its basal lobe less pointed (Fig. 37, see arrow).

Forewing somewhat longer than body. Pterostigma (Fig. 38) 2.9 times as long as wide and issuing *r* from its middle, *r* 0.8 times as long as width of pterostigma. Second submarginal cell usual in size, *3–SR* almost 1.3 times as long as *2–SR*, *SR1* straight, more than twice (2.2 times) as long as *3–SR* and reaching tip of wing. First discal cell high, *1–M* 1.6 times longer than *m–cu*, two veins not parallel, *1–SR–M* faintly bent and 1.5 times longer than *1–M* (Fig. 39).

First tergite long (Fig. 40), 1.5 times as long as broad behind, beyond pair of spiracles indistinctly narrowing, polished, margin of scutum crenulate. Second tergite transverse, 2.8 times as broad behind as long laterally, one-fifth longer laterally than third tergite laterally (Fig. 40, see arrows). Suture between tergites 2–3 bisinuate and smooth. Tergites 2–3 antero-medially with fine rugulosity, otherwise together with further tergites polished. Hypopygium short and pointed, ovipositor sheath as long as hind tibia (Fig. 41).

Ground colour of body black. Antenna black with brownish tint. Straw yellow: palpi, tegula and hind tibia. Yellow: tergites 2–3 laterally, sternites and legs. Hind coxa basally blackish. Hind tibia distally and hind tarsus entirely dark fumous. Wings hyaline, pterostigma and veins brownish.

Male and host unknown.

Distribution – Denmark.

Taxonomic position – Within the subgenus *Glabrobracon* FAHRINGER, 1927, *Bracon fucosus* sp. n. is near to *Bracon nigricollis* WESMAEL considering their two common features: second tergite somewhat longer than third tergite, and legs (eventually except hind coxa) yellow; the two species are distinguished by the following features:

1(2) Head in dorsal view transverse (Fig. 42) (1.7–)1.8–1.9 times as broad as long, eye 1.2–1.3 times longer than temple. First tergite 1.0–1.25 times as long as broad behind (Fig. 43). Second submarginal cell long, *3–SR* 1.3–1.5 times as long as *2–SR*, *SR1* less long, 1.4–1.6 times longer

than *3–SR* (Fig. 44). Hind femur thin, 3.6 times as long as broad distally (Fig. 45). Basal lobe of claw pointed (Fig. 46, see arrow). Tegula yellow to brownish yellow. Female: 2.2–3 mm. – Western Palaearctic Region *Bracon* (*Glabrobracon*) *nigricollis* WESMAEL, 1838

2(1) Head in dorsal view less transverse (Fig. 35), 1.6 times as broad as long, eye almost 1.6 times longer than temple. First tergite 1.5 times longer than broad behind Fig. 40). Second submarginal cell less long, *3–SR* 1.2 times as long as *2–SR*, *SR1* more than twice as long as *3–SR* (Fig. 38). Hind femur thick, 2.9 times as long as broad distally (Fig. 36). Basal lobe of claw not pointed (Fig. 37, see arrow). Tegula lemon yellow. Female: 2.6 mm. – Denmark **Bracon (Glabrobracon) fucosus** sp. n.

Bracon (Glabrobracon) gijswijti sp. n.
(Figs 48–53)

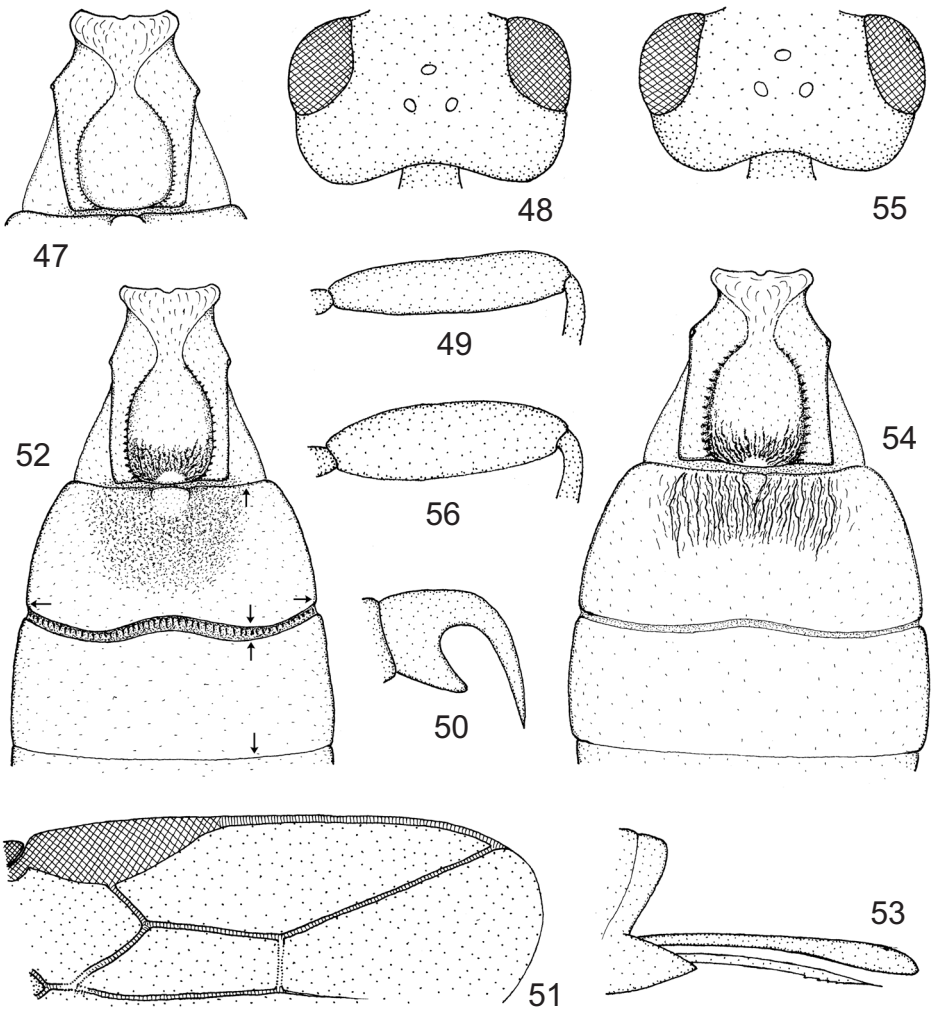
Type material – Female holotype (NNML) and two female paratypes (one in NNML, one in HNHM): Spain, prov. Soria, 10 km S Abejar, taken from *Juniperus thurifera*, 23–29 June 1990, leg. M. J. GIJSWIJT. Two female paratypes (one in NNML, one in HNHM): Spain, prov. Soria, 16 km SSE from El Burgo de Osma, taken from *Juniperus thurifera*, 28 June 1990, leg. M. J. GIJSWIJT. One female paratype (in NNML): Spain, prov. Soria, El Burgo de Osma, taken from *Juniperus thurifera*, 1 July 1990, leg. M. J. GIJSWIJT.

The holotype and five paratypes are in good condition: (1) every specimen glued on a small and oblong card either ventrally (four females) or somewhat right-laterally (two females); (2) left antenna of two female paratypes deficient. The female holotype and three female paratypes are deposited in NNML, and two female paratypes in HNHM, Hym. Typ. Nos 11891–11892.

Etymology – The new species is dedicated to Dr. M. J. GIJSWIJT (Amsterdam), the well-known specialist on chalcidoid wasps and collector of the type-series.

Description of the female holotype – Body 3.1 mm long. Antenna somewhat shorter than body and with 24 antennomeres. First flagellomere 2.7 times and penultimate flagellomere twice as long as broad, flagellum faintly attenuating. Head in dorsal view (Fig. 48) less transverse, 1.7 times as broad as long, eye 1.3 times longer than temple, temple rounded, occiput weakly excavated. Eye in lateral view 1.5 times as high as wide and 1.3 times (or one-fourth) wider than temple, temple beyond eye evenly broad. Horizontal diameter of oral opening as long as shortest distance between opening and eye. Head polished, face finely granulose.

Mesosoma in lateral view 1.6 times as long as high, polished. Notaulix very feebly distinct. Hind half of mesoscutum hairpunctured. Propodeum entirely polished. Hind femur 4.1 times as long as broad medially, almost parallel-sided (Fig. 49). Claw curved and with a fairly large basal lobe (Fig. 50).



Figs 47–56. *Bracon* (*Glabrobracon*) *flamargo* sp. n.: 47 = first tergite (paratype). – *Bracon* (*Glabrobracon*) *gijswijti* sp. n.: 48 = head in dorsal view, 49 = hind femur, 50 = claw, 51 = distal part of right forewing, 52 = tergites 1–3, 53 = hind end of female metasoma. – *Bracon* (*Glabrobracon*) *subsinuatus* Szépligeti, 1901: 54 = tergites 13, 55 = head in dorsal view, 56 = hind femur

Forewing about as long as body. Pterostigma (Fig. 51) three times as long as wide and issuing *r* somewhat proximally from its middle, *r* 0.76 times as long as width of pterostigma. Second submarginal cell usual in length, *3–SR* 1.5 times as long as *2–SR*, *SR1* straight, 1.75 times longer than *3–SR* and just reaching tip of wing (Fig. 51). First discal cell high, *1–M* twice as long as *m–cu*, *1–SR–M* just bent and somewhat longer than *1–M* (cf. Fig. 29).

First tergite (Fig. 52) 1.4 times longer than broad behind, parallal-sided beyond pair of spiracles. Second tergite long, twice as broad behind as long laterally, 1.2 times longer than third tergite, suture between them clearly bisinuate and crenulate (Fig. 52, see arrows). Scutum of first tergite posteriorly with fine striae, second tergite antero-medially rugulose-subrugulose, tergites otherwise polished. Hypopygium shrivelled hence hardly visible, ovipositor sheath as long as hind tibia.

Ground colour of body reddish yellow with dark pattern. Antenna blackish brown. Ocellar field brownish. Blackish to black: three maculae of mesoscutum, mesosternum, metanotum, propodeum, tergites 1–5 and 8; tergites 1–5 laterally and tergites 6–7 entirely reddish yellow to yellow. Legs reddish yellow to yellow, light brownish: hind coxa, hind femur, all tibiae and tarsi. Wings hyaline, pterostigma greyish brown, veins opaque light brown.

Description of the five female paratypes – Similar to the holotype. Body 3.1–3.2 mm long. Antenna with 24 (1 female), 25 (2 females) and 26 (2 females) antennomeres. Hind femur 3.8–4.1 times as long as broad medially. Pterostigma issuing *r* just from its middle (2 females). *3–SR* 1.45–1.5 times as long as *2–SR*. Tergites almost entirely black (1 female). Hypopygium small and pointed, ovipositor as in Fig. 53.

Male and host unknown.

Distribution – Spain.

Taxonomic position – Within the subgenus *Glabrobracon* FAHRINGER, 1927, *Bracon gijswijti* sp. n. is most similar to *Bracon subsinuatus* SZÉPLIGETI in their long second tergite and light coloured legs (SZÉPLIGETI 1904: 181, PAPP 2008: 1782); the two species are separated by the following features:

1(2) Female: Suture between tergites 2–3 weakly bisinuate and smooth (Fig. 54). Head in dorsal view 1.8(–1.9) times as broad as long, temple receded (Fig. 55). Hind femur thick, 2.8–2.9 times as long as broad either medially (Fig. 56) or somewhat distally. First tergite 1.2–1.3 times as long as broad behind, with slightly diverging sides beyond pair of spiracles; second tergite more than twice as broad behind as long laterally, antero-medially striate; third tergite slightly more transverse (Fig. 54). Antenna with (27–)30–31(–36) antennomeres. Hind femur yellow. Female: 3.5–3.7 mm. – Scotland, England, Germany, Spain, Hungary
Bracon (*Glabrobracon*) *subsinuatus* SZÉPLIGETI, 1901

2(1) Female: Suture between tergites 2–3 clearly bisinuate, finely crenulate (Fig. 52). Head in dorsal view 1.7 times as broad as long, temple rounded (Fig. 48). Hind femur thin, 4.2–4.5 times as long as broad medially (Fig. 49). First tergite 1.3–1.4 times as long as broad behind, parallel-sided beyond pair of spiracles; second tergite twice as broad behind as long laterally, antero-medially rugulose-subrugulose (Fig. 52, see arrows). Antenna with 24–26 antennomeres. Hind femur light brown to brown. Female: 3.1–3.2 mm. – Spain

Bracon (Glabrobracon) gijswijti sp. n.

The new species seems to be similar to *Bracon (Glabrobracon) surucicus* BEYARSLAN in having their common features as the long second tergite (Fig. 12 in BEYARSLAN 2002: 195), polished propodeum and *r* issuing close to middle of pterostigma; however, they are distinguished as follows:

1(2) Eye in dorsal view twice as long as temple. Notaulix deep. Pterostigma 2.2 times as long as wide, *3–SR* 1.6 times as long as *2–SR*. First tergite broad, 0.7 times as long as broad behind. Body black with a few reddish brown pattern. Female: 2.7 mm. – Turkey

Bracon (*Glabrobracon*) *surucicus* BEYARSLAN, 2002

2(1) Eye in dorsal view 1.3 times as long as temple (Fig. 48). Notaulix almost indistinct. Pterostigma three times as long as wide, *3–SR* 1.45–1.5 times as long as *2–SR* (Fig. 51). First tergite long, 1.3–1.4 times as long as broad behind (Fig. 52). Body reddish yellow with blackish to black pattern. Female: 3.1–3.2 mm. – Spain

Bracon (Glabrobracon) gijswijti sp. n.

Bracon surucicus was placed in the subgenus *Lucobracon* by the describer (BEYARSLAN 2002: 196). However, the hypoclypeal depression (or oral opening) is small, *SR1* of forewing reaching tip of wing, second submarginal cell long and rather narrow (see also original description and Fig. 10 in BEYARSLAN 2002), i.e. these three features relegate the species to the subgenus *Glabrobracon*.

Bracon (Bracon) gumis sp. n.
(Figs 57–62)

Type material – Female holotype, one female and one male paratypes (in DAZUH): Spain, Canary Islands, Tenerife, Punta de Teno, 23 March 1999, leg. M. Koponen. Five female paratypes (two females in DAZUH, three females in HNHM): Spain, Canary Islands, Tenerife, Buena Vista, Punta de Teno, 14 December 1997, leg. M. Koponen. The holotype and three female and one male paratypes are deposited in DAZUH; three female paratypes in HNHM, Hym. Typ. Nos 11893 – 11895.

Etymology – The specific epithet "gumis" is a fantasy name.

Description of the female holotype – Body 3.2 mm long. Antenna as long as body and with 30 antennomeres. First flagellomere three times and penultimate flagellomere 1.7 times as long as broad, flagellum not attenuating. Head in dorsal view transverse (Fig. 57), twice as broad as long, eye twice as long as temple, temple strongly rounded. Ocelli almost round, OOL almost twice as long as POL. Eye in lateral view 1.3 times as high as wide and 1.5 times wider than temple, temple ventrally widening. Horizontal diameter of oral opening 1.4 times longer than shortest distance between opening and eye. Head polished, face uneven.

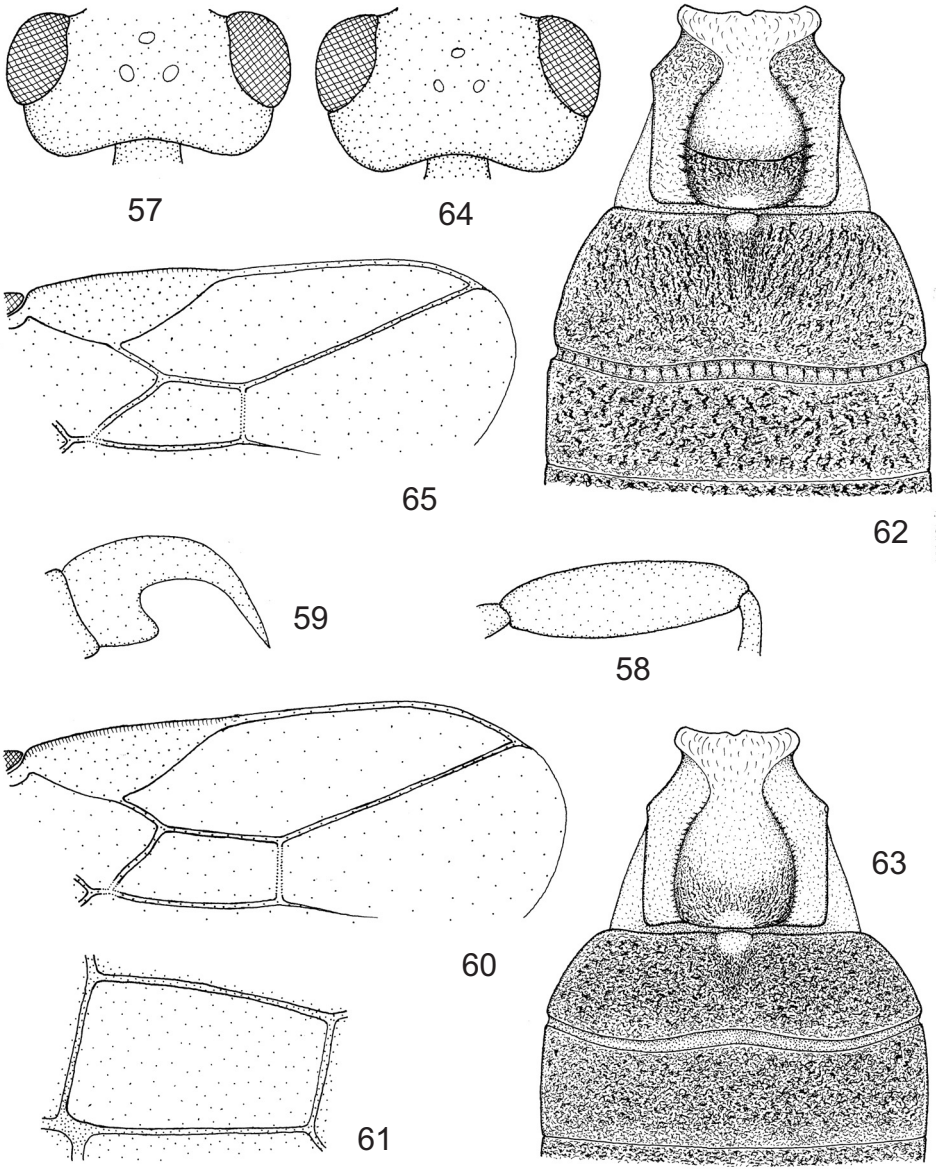
Mesosoma in lateral view 1.4 times as long as high, polished. Notaulix almost indistinct. Hind femur 3.1 times as long as broad medially (Fig. 58). Claw less curved, its basal lobe small and pointed (Fig. 59).

Forewing as long as body. Pterostigma less wide (Fig. 60), 2.8 times as long as wide ad issuing *r* proximally from its middle, *r* 0.6 times as long as width of pterostigma. Second submarginal cell long, *3–SR* 1.5 times length of *2–SR*; *SR1* straight, twice as long as *3–SR* and approaching tip of wing. First discal cell less high, *1–M* 1.4 times longer than *m–cu*, *1–SR–M* almost straight and 1.6 times longer than *1–M* (Fig. 61).

First tergite (Fig. 62) as long as broad behind, up to pair of spiracles clearly broadening, beyond spiracles parallel-sided, scutum behind rugulo-uneven, its margin crenulate. Second tergite transverse, almost 2.5 times as broad behind as long, longitudinally rugose-rugulose (Fig. 62). Second tergite 1.6 times longer than third tergite, suture between them weakly bisinuate and crenulate. Tergites rugose. Hypopygium pointed, ovipositor sheath as long as hind tibia and basitarsus combined.

Body yellow, palpi yellow, antenna blackish to black, ocellar field and ovipositor sheath black. Tegula pale yellow. Legs yellow, tarsi brownish to dark brownish. Wings hyaline, pterostigma and veins yellow.

Deviating features of the six female paratypes – Similar to the holotype. Body 3–3.2 mm long. Antenna with 28–29 antennomeres. Head in dorsal view 1.9–2 times as broad as long (1.9: 2 females, 2: 4 females). Hind femur 2.9–3.1 times as long as broad medially. Pterostigma 2.8–3 times as long as wide (2.8: 4 females, 3: 2 females). 3–SR 1.35–1.4 times longer than 2–SR. Ovipositor sheath as long as hind tibia and tarsomeres 1–2 combined (1 female).



Figs 57–65. *Bracon* (*Bracon*) *gumis* sp. n.: 57 = head in dorsal view, 58 = hind femur, 59 = claw, 60 = distal part of right forewing, 61 = first discal cell, 62 = tergites 1–3. – *Bracon* (*Bracon*) *breviareolatus* TOBIAS, 1986: 63 = tergites 1–3, 64 = head in dorsal view, 65 = distal part of right forewing

Deviating features of the male paratype – Similar to the female types. Body 3.2 mm long. Antenna about one-fourth longer than body and with 33 antennomeres. Head in dorsal view 1.9 times as broad as long, temple slightly less rounded. First tergite just longer than broad behind. Mesoscutum with three brownish maculae.

Host unknown.

Distribution – Spain: Canary Islands.

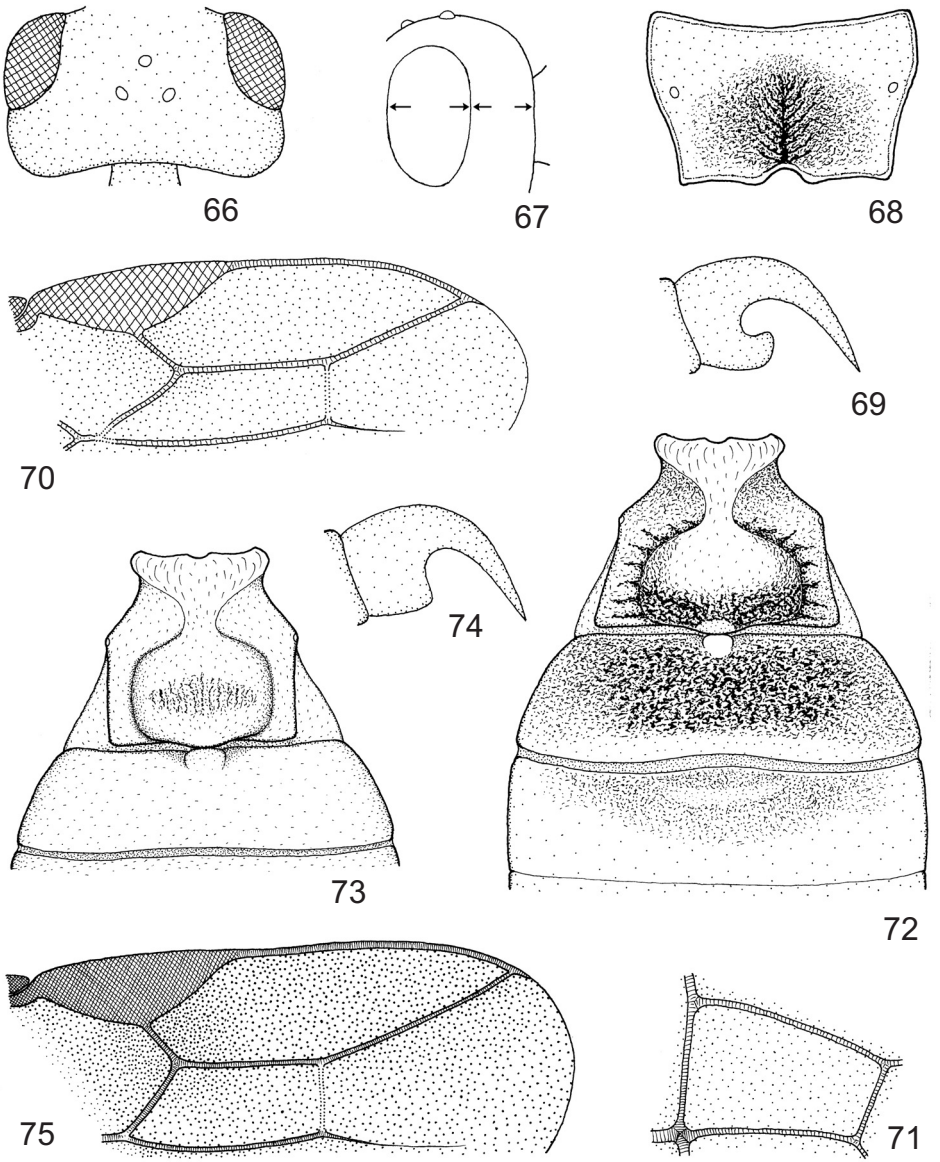
Taxonomis position – Within the subgenus *Bracon* FABRICIUS, 1804, *Bracon gumis* sp. n. would run to *B. breviareolatus* TOBIAS in TOBIAS' key (1986: 122) because of their common features: yellow corporal colour, receded temple, less roughly sculptured tergites and less thick hind femur; the two species differ in the following features:

1(2) Second tergite rugose-rugulose, tergites 2–3 more transverse and equal in length, suture between them clearly bisinuate and smooth (Fig. 63). Head in dorsal view 1.8–1.9 times as broad as long, temple receded, eye not protruding and 1.6–1.7 times longer than temple (Fig. 64). Second submarginal cell short, 3–SR 0.7–0.75 times as long as 2–SR, SR1 reaching tip of wing (Fig. 65). Female: 3–3.4 mm. – Turkmenia *Bracon* (*Bracon*) *breviareolatus* TOBIAS, 1957

2(1) Second tergite longitudinally rugose-rugulose, tergites 2–3 less transverse, second tergite longer than third tergite, suture between them weakly bisinuate and crenulate (Fig. 62). Head in dorsal view twice as broad as long, temple strongly rounded, eye somewhat protruding and twice as long as temple (Fig. 57). Second submarginal cell long, *3–SR* 1.6–1.7 times longer than *2–SR*, *SR1* approaching tip of wing (Fig. 60). Female: 3–3.2 mm, male: 3.2 mm **Bracon (Bracon) gumis** sp. n.

Bracon (Glabrobracon) latitergit sp. n.
(Figs 66–72)

Type material – Female holotype: Hungary, Újszentmargita, swept in *Galatello-Quercetum* nature reserve forest, 23 June 1974, leg. J. PAPP. It is in good condition: glued on a pointed card by its mesosternum. The holotype is deposited in the HNHM, Hym. Typ. No. 11896.



Figs 66–75. *Bracon* (*Glabrobracon*) *latitergit* sp. n.: 66 = head in dorsal view, 67 = head in lateral view, 68 = propodeum, 69 = claw, 70 = distal part of right forewing, 71 = first discal cell, 72 = tergites 1–3. – *Bracon* (*Glabrobracon*) *dilatus* PAPP, 1999: 73 = tergites 1–2, 74 = claw, 75 = distal part of right forewing

Etymology – The species name "latitergit" refers to the extremely broad first tergite (Fig. 72).

Description of the female holotype – Body 3.8 mm long. Antenna short, as long as head, mesosoma and first tergite combined and with 29 antennomeres. Flagellomeres short, first flagellomere 1.5 times and penultimate flagellomere also 1.5 times as long as broad, flagellum attenuating. Head in dorsal view transverse (Fig. 66), 2.1 times as broad as long, eye almost 1.3 times longer than temple, temple rounded, occiput weakly excavate. Ocelli small, elliptic, OOL almost twice as long as POL. Eye in lateral view 1.6 times as high as wide and somewhat wider than temple, 1st beyond eye temple evenly wide (Fig. 67, see arrows). Oral opening: its horizontal diameter somewhat longer than shortest distance between opening and eye. Head polished, face below antennal sockets (or toruli) finely granulose.

Mesosoma in lateral view 1.4 times as long as high, polished. Notaulix less distinct. Propodeum above lunule with keel issuing rugae laterally, rugo-rugulose (Fig. 68). Hind femur 2.9 times as long as broad medially (cf. Fig. 78). Basal lobe of claw hook-like (Fig. 69).

Forewing about as long as body. Pterostigma (Fig. 70) three times as long as wide and issuing *r* from its middle, *r* 0.7 times as long as width of pterostigma. Second submarginal cell long, *3–SR* 1.5 times as long as *2–SR*, *SR1* straight, as long as *3–SR* and only approaching (not reaching) tip of wing. First discal cell less high, *1–M* almost 1.6 times longer than *m–cu*, *1–SR–M* bent and 1.6 times longer than *1–M* (Fig. 71).

First tergite (Fig. 72) extremely broad, 1.3 times broader behind than long, pair of spiracles near its middle, beyond spiracles broadening, scutum behind rugose, its margin crenulate. Second tergite transverse, 3.4 times as broad behind as long medially, rugose. Third tergite anteriorly subrugulose-uneven, otherwise together with further tergites polished. Suture between tergites 2–3 faintly bisinuate, smooth. Hypopygium narrow and pointed, ovipositor sheath as long as hind tibia.

Antenna, body and legs black. Tegula black. Knee of femora and base of tibiae brownish-rusty. Wings light brownish fumous, pterostigma and veins brown.

Male and host unknown.

Distribution – Hungary.

Taxonomic position – Within the subgenus *Glabrobracon* FAHRINGER, 1927, *Bracon latitergit* sp. n. is closest to *Bracon dilatus* PAPP based on their relatively broad first tergite and long submarginal cell of fore wing; their distinction is restricted to a few features:

1(2) First tergite as long as broad behind, beyond pair of spiracles parallel-sided, scutum medially finely substriate; second tergite smooth (Fig. 73). Propodeum polished. Basal lobe of claw small, not hook-like (Fig. 74).

Second submarginal cell relatively shorter, *SR1* 1.5 times longer than *3–SR*, *r* issuing distally from its middle (Fig. 75). Ground colour of body reddish yellow with blackish to black pattern. Wings brown fumous. Female: 5 mm. – Iran, Iraq

Bracon (*Glabrobracon*) *dilatus* PAPP, 1999

2(1) First tergite 1.3 times broader behind than long, beyond pair of spiracles with diverging sides, scutum behind rugose; second tergite rugose (Fig. 72). Propodeum rugo-rugulose and with a medio-longitudinal keel (Fig. 68). Basal lobe of claw hook-like (Fig. 69). Second submarginal cell relatively long, *SR1* as long as *3–SR*, *r* issuing from middle of pterostigma (Fig. 70). Ground colour of body black. Wings light brownish fumous. Female: 3.8 mm. – Hungary

Bracon (Glabobracon) latitergit sp. n.

Bracon (Lucobracon) merkli sp. n.
(Figs 76–81, 88)

Type material – Female holotype: Hungary, Nagykovácsi, Kopasz-erdő, swept in *Quercetum petraeae-cerris*, 350 m, 5 May 1984, leg. MERKL. It is in good condition: (1) glued on a pointed card by the mesosternum, (2) left flagellum deficient, i.e. with 15 flagellomeres. The holotype is deposited in HNHM, Hym. Typ. No. 11897.

Etymology – The new species is dedicated to Dr. OTTÓ MERKL, coleopterist in the Hungarian Natural History Museum, also a persistent collector of hymenopterans.

Description of the female holotype – Body 3 mm long. Antenna short, somewhat longer than half length of body and with 22 antennomeres (right antenna). First flagellomere twice as long as broad, penultimate flagellomere cubic; flagellum distally attenuating. Head in dorsal view transverse (Fig. 76), 1.8 times as broad as long, eye 1.75 times longer than temple, temple more rounded. Ocelli small, slightly elliptic, OOL 1.7 times longer than POL. Eye in lateral view 1.5 times as high as wide and 1.4 times wider than temple, temple ventrally widening. Oral opening: its horizontal diameter one-fourth longer than shortest distance between opening and eye. Head polished, face laterally shagreened.

Mesosoma in lateral view 1.6 times as long as high, polished. Notaulix indistinct. Propodeum with a medio-longitudinal keel and along it rugulose, otherwise polished (Fig. 77). Hind femur 2.3 times as long as broad medially (Fig. 78). Claw relatively short, its basal lobe small (Fig. 79).

Forewing as long as body. Pterostigma narrow (Fig. 80), 3.6 times as long as wide and issuing *r* distally from its middle, *r* half as long as width of pterostigma. Second submarginal

cell relatively long, *3–SR* as long as *2–SR*, *SR1* bent, 1.6 times longer than *3–SR* and ending far before tip of wing (Fig. 80). First discal cell long, *1–M* 1.4 times as long as *m–cu*, *1–SR–M* bent and 1.7 times as long as *1–M* (Fig. 81).

First tergite (Fig. 88) slightly longer than broad behind, scutum behind rugulose, margin laterally from scutum subrugulose-uneven, otherwise together with further tergites polished. Second tergite somewhat shorter than third tergite, suture between them bisinuate and smooth (Fig. 88). Ovipositor sheath short, as long as hind basitarsus and half of second tarsomere combined.

Antenna and body black. Palpi blackish. Tegula black. Fore and middle tibiae basally, hind tibia proximally brownish, tarsi brownish with weak blackish tint. Wings subfumous, pterostigma subfumous, pterostigma and veins brown.

Male and host unknown.

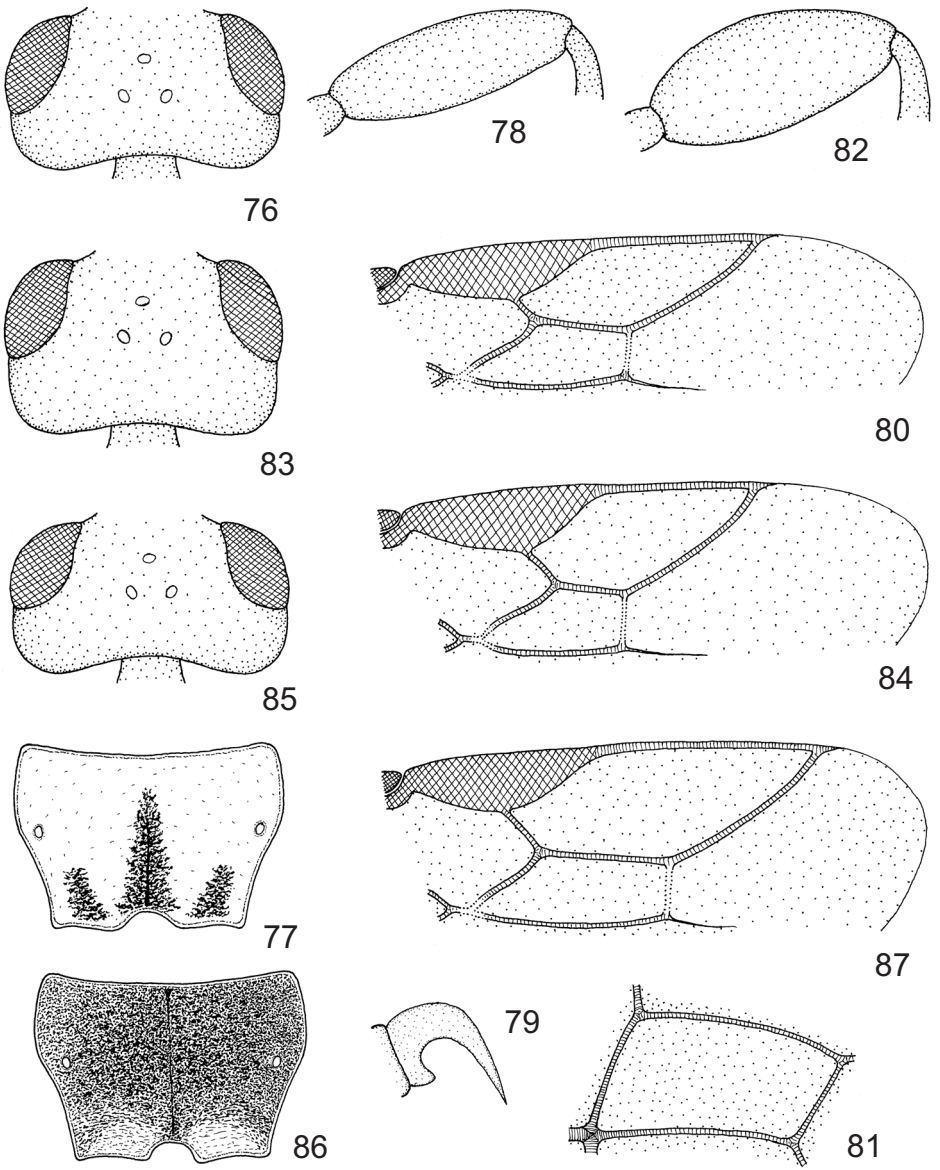
Distribution – Hungary.

Taxonomic position – Within the subgenus *Lucobracon* FAHRINGER, 1927, *Bracon merkli* sp. n. is near *Bracon brevifemur* TOBIAS considering their short ovipositor apparatus, shortened marginal cell of the forewing and black coloured head and mesosoma. Besides the original description (TOBIAS 1959: 888) my concept of *B. brevifemur* is based on two female paratypes housed in the HNHM. The two species can be separated by the following features:

1(2) Hind femur thick, twice as long as broad proximally (Fig. 82). Head in dorsal view subcubic, 1.6 times as broad as long, temple less rounded (Fig. 83). Second submarginal cell of forewing short, *3–SR* 0.7 times as long as *2–SR*, pterostigma three times as long as wide (Fig. 84). Legs with more or less brownish to yellow pattern. Female: 2.8–3.2 mm. – Kazakhstan *Bracon* (*Lucobracon*) *brevifemur* TOBIAS, 1959

2(1) Hind femur less thick, 2.3 times as long as broad medially (Fig. 78). Head in dorsal view transverse, 1.8 times as broad as long, temple more rounded (Fig. 76). Second submarginal cell of forewing less short, *3–SR* as long as *2–SR*, pterostigma 3.6 times as long as wide (Fig. 80). Legs almost entirely blackish to black. Female: 3 mm. – Hungary **Bracon (Lucobracon) merkli** sp. n.

The new species is also near *Bracon* (*Lucobracon*) *saltator* TELENGA (see TELENGA 1936: 182, 382) considering their transverse head, less thickened hind femur and shortened marginal cell of forewing; the two species are distinguished by a few features as follows:



Figs 76–87. *Bracon* (*Lucobracon*) *merkli* sp. n.: 76 = head in dorsal view, 77 = propodeum, 78 = hind femur, 79 = claw, 80 = distal part of right forewing, 81 = first discal cell. – *Bracon* (*Lucobracon*) *brevifemur* TOBIAS: 82 = hind femur, 83 = head in dorsal view, 84 = distal part of right forewing. – *Bracon* (*Lucobracon*) *saltator* TELENGA, 1936: 85 = head in dorsal view, 86 = propodeum, 87 = distal part of right forewing

1(2) Temple in dorsal view less rounded, eye somewhat longer than temple (Fig. 85). Propodeum entirely rugulose, its medio-longitudinal keel less distinct (Fig. 86). Pterostigma issuing *r* just distally from its middle, second submarginal cell long: *3–SR* 1.4–1.5 times longer than *2–SR* (Fig. 87). Female: 2.5–3.5(–4) mm. – Asiatic Russia (Khabarovski Krai, Primorski Krai), Europe (sporadic)
Bracon (*Lucobracon*) *saltator* TELENGA, 1936

2(1) Temple in dorsal view more rounded, eye almost twice as long as temple (Fig. 76). Propodeum polished, only along distinct medio-longitudinal keel rugulose (Fig. 77). Pterostigma issuing *r* clearly distally from its middle, second submarginal cell less long: *3–SR* as long as *2–SR* (Fig. 80). Female: 3 mm. – Hungary **Bracon (Lucobracon) merkli** sp. n.

Bracon (Glabrobracon) mopux sp. n.
(Figs 89–94)

Type material – Female holotype and one female paratype: Germany, Wispertal, 27 June 1965, leg. A. STEFFAN (holotype) and 17 July 1919, leg. L. KRIEGER (paratype). One female paratype: Germany, Waake an der Weser, 10–13 July 1924, leg. H. BISCHOFF. One female paratype: Denmark, Fåpsø, 25 June 1983, leg. T. MUNK. One female paratype: "Wmld." [= Wäsmanland, Ekhärad], 21 July 1960, leg. W. R. M. MASON. One female paratype: Romania, Transylvania, Hargita megye [= jud. Harghita], Kelemen-havasok [= Munţii Căliman], Maroshévíz [=Topliţa], Vajda-patak, 1100 m, 11 July 1998, leg. I. ROZNER.

The holotype is in good condition: (1) glued direct to the insect pin by the right mesopleuron, (2) left flagellum deficient: with 14 flagellomeres. Five paratypes are also in good condition: (1) either micropinned (two paratypes) or glued on a pointed card (three paratypes), (2) flagelli partly deficient. All types are deposited in HNHM, Hym. Typ. Nos 11901 (holotype) and 11902 – 11906 (five paratypes).

Etymology – The specific epithet "mopux" is a fantasy name.

Description of the female holotype – Body 4.5 mm long. Antenna as long as head, mesosoma and half metasoma combined. Right antenna with 34 antennomeres. First flagellomere 1.6 times and penultimate flagellomere 1.5 times as long as broad, flagellum attenuating. Head in dorsal view transverse (Fig. 89), 1.9 times as broad as long, eye 1.8 times longer than temple, temple somewhat receded. Ocelli small and somewhat elliptic, OOL twice as long as POL. Eye in lateral view nearly 1.5 times as high as wide and nearly 1.4 times wider than temple, temple beyond eye evenly wide (Fig. 90, see arrows). Oral opening: horizontal diameter 1.3 times longer than shortest distance between opening and eye. Head polished, around antennal sockets (or toruli) chagreened.

Mesosoma in lateral view 1.5 times as long as high, polished. Notaulix faintly distinct, smooth. Propodeum polished, above lunule with short striae. Hind femur 3.6 times as long as broad medially (cf. Fig. 58). Claw curved, its basal lobe angled (Fig. 91).

Forewing as long as body. Pterostigma (Fig. 92) wide, 2.5 times as long as wide and issuing *r* from its middle, *r* 0.8 times as long as width of pterostigma. Second submarginal cell elongate, *3–SR* slightly longer than *2–SR*, *2–M* almost twice as long as *3–SR*; *SR1* straight, twice as long as *3–SR* and reaching tip of wing. First discal cell fairly high, *1–M* twice as long as *m–cu*, *1–SR–M* bent and 1.5 times longer than *1–M*.

First tergite (Fig. 93) slightly longer than broad behind, weakly broadening posteriorly beyond pair of spiracles. Second tergite 3.2 times broader behind than long laterally, third tergite slightly longer than second tergite; suture between them bisinuate (Fig. 93). Scutum of first tergite polished, its margin crenulate, second tergite antero-laterally subrugulose, otherwise together with further tergites polished. Hypopygium pointed (Fig. 94), ovipositor sheath long, as long as hind tibia and tarsus combined.

Antenna, head and mesosoma black. Palpi dark brown. Tegula brown. First tergite black, further tergites blackish to black, tergites 2–5 laterally and sternites fully yellow. Legs blackish to black with much yellow pattern on fore femur, tibia and tarsus, base of middle tibia and entire tarsus, proximal half of hind tibia and tarsus partly. Every trochanter brownish yellow. Wings brownish subhyaline, pterostigma and veins brown.

Deviating features of the five female paratypes – Similar to the holotype. Body 4.5 mm long. Antenna with 30–32 antennomeres. Head in dorsal view 1.8–1.9 times as broad as long. Hind femur 3.3 (three paratypes) to 3.6 times (two paratypes) as long as broad medially. Pterostigma three (one paratye) to 2.5–2.6 times (four paratypes) as long as wide. Ovipositor sheath as long as hind tibia and tarsus (three paratypes) to somewhat shorter (two paratypes).

Male and host unknown.

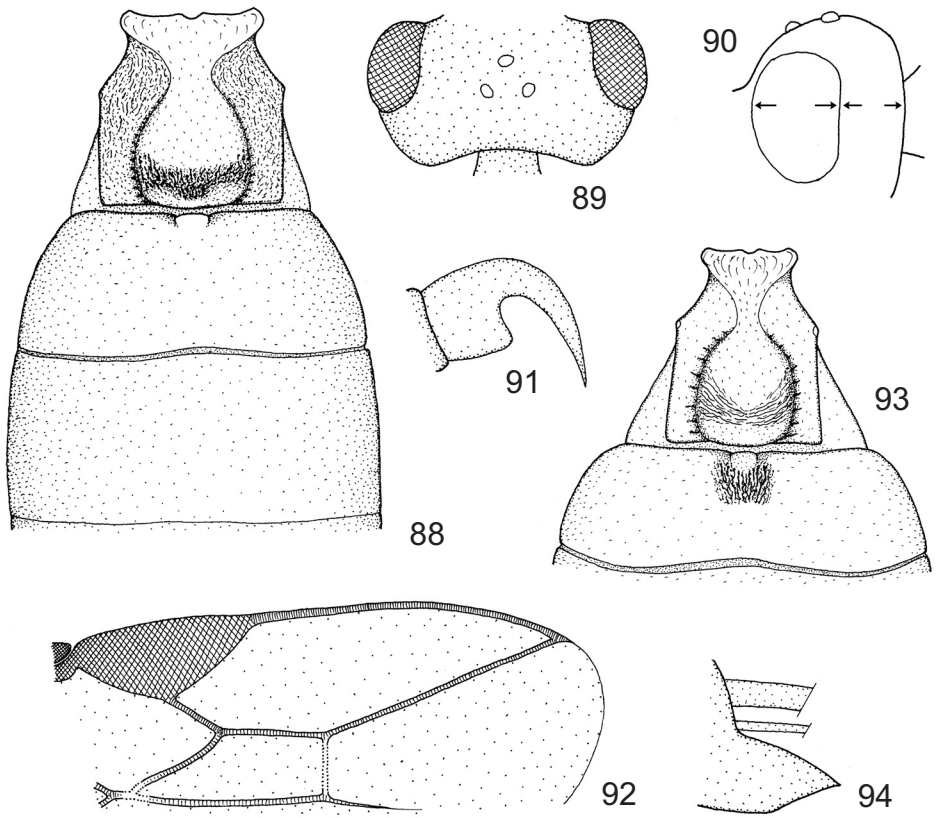
Distribution – Germany, Denmark, Sweden, Romania.

Taxonomic position – Within the subgenus *Glabrobracon* FAHRINGER, 1927, *Bracon mopux* sp. n. is nearest to *Bracon minutator* (FABRICIUS), the difference between the two species is restricted to a few features not easy to recognize:

1(2) Temple in dorsal view rounded, eye 1.3–1.4 times longer than temple (Figs 209, 217 in PAPP 2008: 1823). First tergite as long as broad behind, parallel-sided or weakly broadening beyond pair of spiracles (Fig. 215, 218 in PAPP 2008: 1823). Second submarginal cell less elongate, *3–SR* 1.2–1.3 times as long as *2–SR*, *2–M* 1.6–1.7 times longer than *3–SR* (Fig. 213 l.c.). Ovipositor sheath short, as long as hind tarsomeres 1–2 combined. Hind femur reddish yellow. Female: 4–4.5(–5) mm. – Europe *Bracon* (*Glabrobracon*) *minutator* (FABRICIUS, 1798)

2(1) Temple in dorsal view somewhat receded, eye 1.7–1.8 times longer than temple (Fig. 89). First tergite slightly longer than broad behind, weakly broadening posteriorly (Fig. 93). Second submarginal cell elongate, *3–SR* and *2–SR* equal in length or *3–SR* a bit longer than *2–SR*, *2–M* almost twice as long as *3–SR* (Fig. 92). Ovipositor sheath long, as long as hind tibia and tarsomeres 1–2 to hind tibia and whole tarsus combined. Hind femur black. Female: 4.5 mm. – Germany, Denmark, Sweden, Romania (Transsylvania)

Bracon (Glabrobracon) mopux sp. n.



Figs 88–94. *Bracon* (*Lucobracon*) *merkli* sp. n.: 88 = tergites 1–3. – *Bracon* (*Glabrobracon*) *mopux* sp. n.: 89 = head in dorsal view, 90 = head in lateral view, 91 = claw, 92 = distal part of right forewing, 93 = tergites 1–2, 94 = hypopygium

Bracon (Glabrobracon) munki sp. n.
(Figs 95–103)

Type material – Female holotype: Denmark, West-Jylland, Grene s Billund, 3 July 1984, leg. T. MUNK. Female paratype: Romania, Transylvania, Nagyenyed [= Aiud], 25 July 1903, leg. (?)Z. SZILÁDY. The holotype and paratype are in good condition: (1) glued on a pointed card by coxae 2–3 and sternites 1–2 (holotype) and by the left metapleuron and base of metasoma (paratype); (2) paratype: right fore wing glued separately and left middle leg missing. The holotype and paratype are deposited in HNHM, Hym. Typ. Nos 11898 (holotype) and 11899 (paratype).

Etymology – The new species is dedicated to Mr. THORKILD MUNK (Århus), keen collector of insects, especially parasitoid wasps, who collected the holotype.

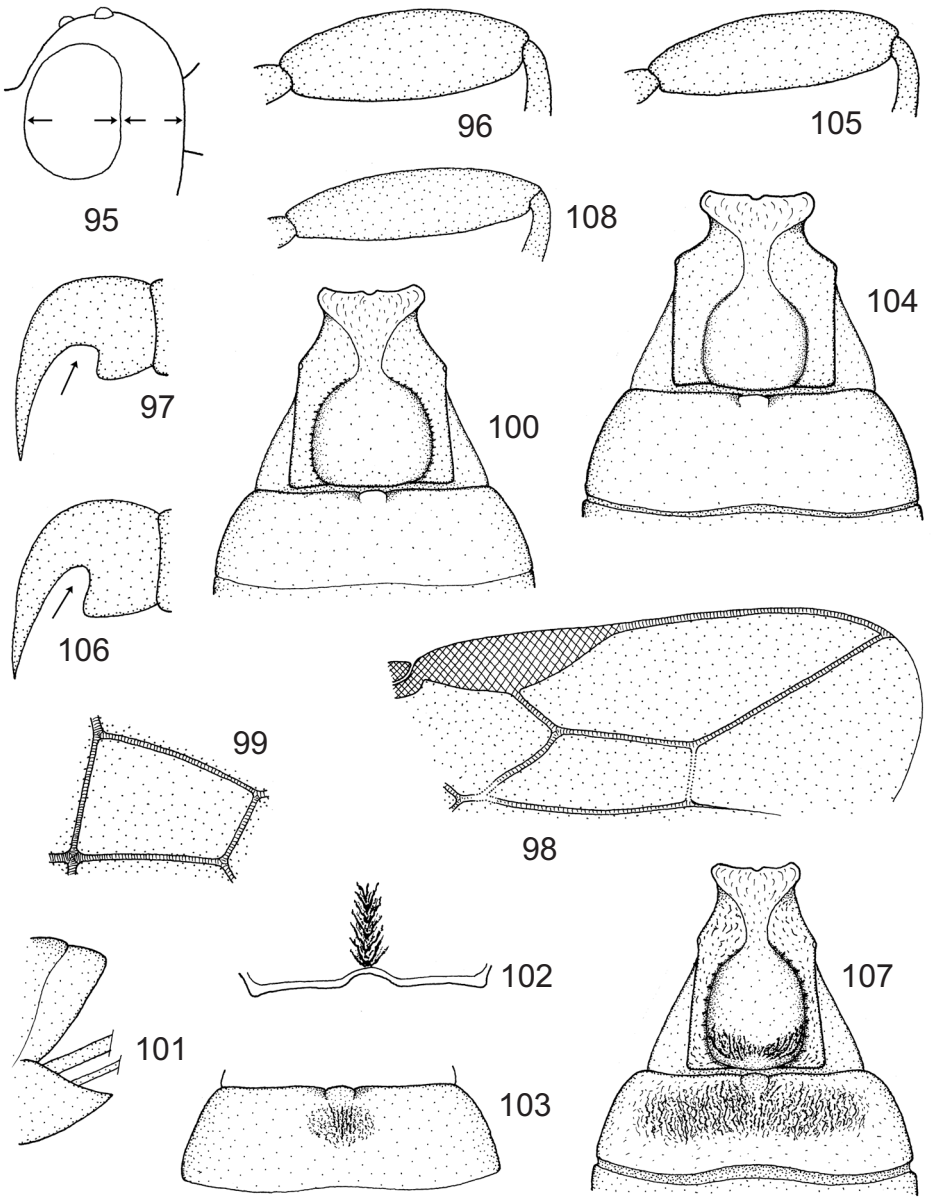
Description of the female holotype – Body 2.5 mm long. Antenna short, as long as head, mesosoma and half of metasoma combined, with 23 antennomeres. First flagellomere almost 1.6 times as long as broad, penultimate flagellomere subcubic; first 5–6 flagellomeres gradually shortening and faintly thickening, rest of flagellomeres subcubic (i.e. somewhat longer than broad). Head in dorsal view transverse (cf. Fig. 23), 1.8 times as broad as long, eye 1.5 times as long as temple, temple rounded, occiput excavated. Eye in lateral view 1.3 times as high as wide somewhat ventrally, temple almost 0.8 times as broad as eye (Fig. 95, see arrows). Oral opening with horizontal diameter one-fifth longer than shortest distance between opening and eye. Head polished.

Mesosoma in lateral view 1.6 times as long as high, polished. Notaulix weakly distinct on declivous part of mesoscutum. Propodeum polished, around lunule with a few short rugulae (cf. Fig. 3). Hind femur faintly thick, 2.4 times as long as broad medially (Fig. 96). Claw curved, its basal lobe small (Fig. 97, see arrow).

Forewing as long as body. Pterostigma narrow (Fig. 98), 3.3 times as long as wide and issuing *r* from its middle, r slightly (i.e. 0.8 times) shorter than width of pterostigma. Second submarginal cell fairly long, *3–SR* nearly 1.5 times as long as *2–SR*; *SR1* straight, 1.7 times longer than *3–SR* and reaching tip of wing. First discal cell less high, *1–M* 1.6 times as long as *m–cu*, *1–SR–R* faintly bent and 1.4 times as long as *1–M* (Fig. 99).

First tergite (Fig. 100) just longer than broad behind, pair of spiracles near to middle of tergite, beyond spiracles sides just diverging, scutum fairly wide and polished, its margin subcrenulate. Second tergite 3.5 times as broad behind as long, third tergite 1.3 times longer than second tergite, suture between them nearly indistinct and faintly bisinuate. All tergites polished. Hypopygium small and pointed (Fig. 101), ovipositor sheath short, as long as hind tibia.

Ground colour of head and mesosoma blackish brown to dark brown, metasoma brown. Antenna dark brown. Palpi yellow. Tegula brown. Second tergite yellow, medially brownish; third tergite yellowish latero-anteriorly. Legs bicoloured, coxae 1–3 and femora 2–3 brown to brownish. Wings hyaline, pterostigma and veins opaque greyish brownish.



Figs 95–108. *Bracon* (*Glabrobracon*) *munki* sp. n. (95–101: female holotype, 102–103: female paratype): 95 = head in lateral view, 96 = hind femur, 97 = claw, 98 = distal part of right fore wing, 99 = first discal cell, 100 = tergites 1–2, 101= hind end of metasoma, 102 = lower part of propodeum, 103 = second tergite. – *Bracon* (*Glabrobracon*) *terebella* WESMAEL, 1838: 104 = tergites 1–2, 105 = hind femur, 106 = claw. – *Bracon* (*Glabrobracon*) *instabilis* MARSHALL, 1897: 107 = tergites 1–2, 108 = hind femur

Description of the female paratype – Similar to the holotype. Body 2.7 mm long. Antenna with 26 antennomeres. Propodeum above lunule with long rugulae (Fig. 102). Pterostigma wider, three times as long as wide; second submarginal cell longer, *SR1* 1.4 times as long as *3–SR*. Second tergite slightly less transverse, 3.2 times as broad behind as long, antero-medially with rugulo-substriation (Fig. 103). Head and mesosoma black.

Male and host unknown.

Distribution – Denmark, Romania.

Taxonomic position – Within the subgenus *Glabrobracon* FAHRINGER, 1927, *Bracon munki* sp. n. is nearest to *Bracon terebella* WESMAEL and *Bracon instabilis* MARSHALL considering their short ovipositor sheath; the females of the three species are distinguished as follows.

Distinction between *B. terebella* and *B. munki*:

1(2) First tergite beyond pair of spiracles parallel-sided, its scutum less wide and margin of scutum smooth; second tergite somewhat less transverse: 2.5–2.7 times as broad behind as long laterally; suture between tergites 2–3 distinct (Fig. 104). Hind femur less thick, 2.9–3.1 times as long as broad medially (Fig. 105). Claw with larger basal lobe, incision between lobe and claw itself narrow (Fig. 106, see arrow). Ultimate 10–15 flagellomeres long, 1.3–1.4 times longer than broad, antenna with 27–32 antennomeres. Legs black to blackish with reddish yellow pattern. Female: 3.5–4 mm. – Europe
Bracon (*Glabrobracon*) *terebella* WESMAEL, 1838

2(1) First tergite beyond pair of spiracles with slightly diverging sides, its scutum wide and margin of scutum subcrenulate; second tergite transverse: 3.5 times as broad behind as long laterally; suture between tergites 2–3 nearly indistinct (Fig. 100). Hind femur thick, 2.6 times as long as broad medially (Fig. 96). Claw with small basal lobe, incision between lobe and claw itself wide (Fig. 97, see arrow). Ultimate 10–15 flagellomeres subcubic, antenna with 23–26 antennomeres. Legs yellow with brown pattern. Female: 2.5–2.7 mm. – Denmark, Romania
Bracon (Glabrobracon) munki sp. n.

Distinction between *B. instabilis* and *B. munki*:

1(2) Ultimate 10–15 flagellomeres long, 1.3–1.4 times longer than broad, antenna with (25–) 28–30 antennomeres. First tergite 1.4(–1.3) times as long as broad behind, first tergite posteriorly and second tergite anteriorly rugulose, suture between tergites 2–3 distict and bisinuate (Fig. 107). Hind femur 3–3.5 times as long as broad medially (Fig. 108). Ground colour of body black. Female: 2.2–3.5 mm. – England, Germany, Bohemia, Hungary, Bulgaria
Bracon (*Glabrobracon*) *instabilis* MARSHALL, 1897

2(1) Ultimate 10–15 flagellomeres cubic, antenna with 23 antennomeres. First tergite just longer than broad behind, tergites 1–2 polished, suture between tergites 2–3 nearly indistinct and faintly bisinuate (Fig. 100). Hind femur 2.4 times as long as broad medially (Fig 96). Ground colour of body dark brown to brown. Female: 2.5 mm. – Denmark, Romania **Bracon (Glabrobracon) munki** sp. n.

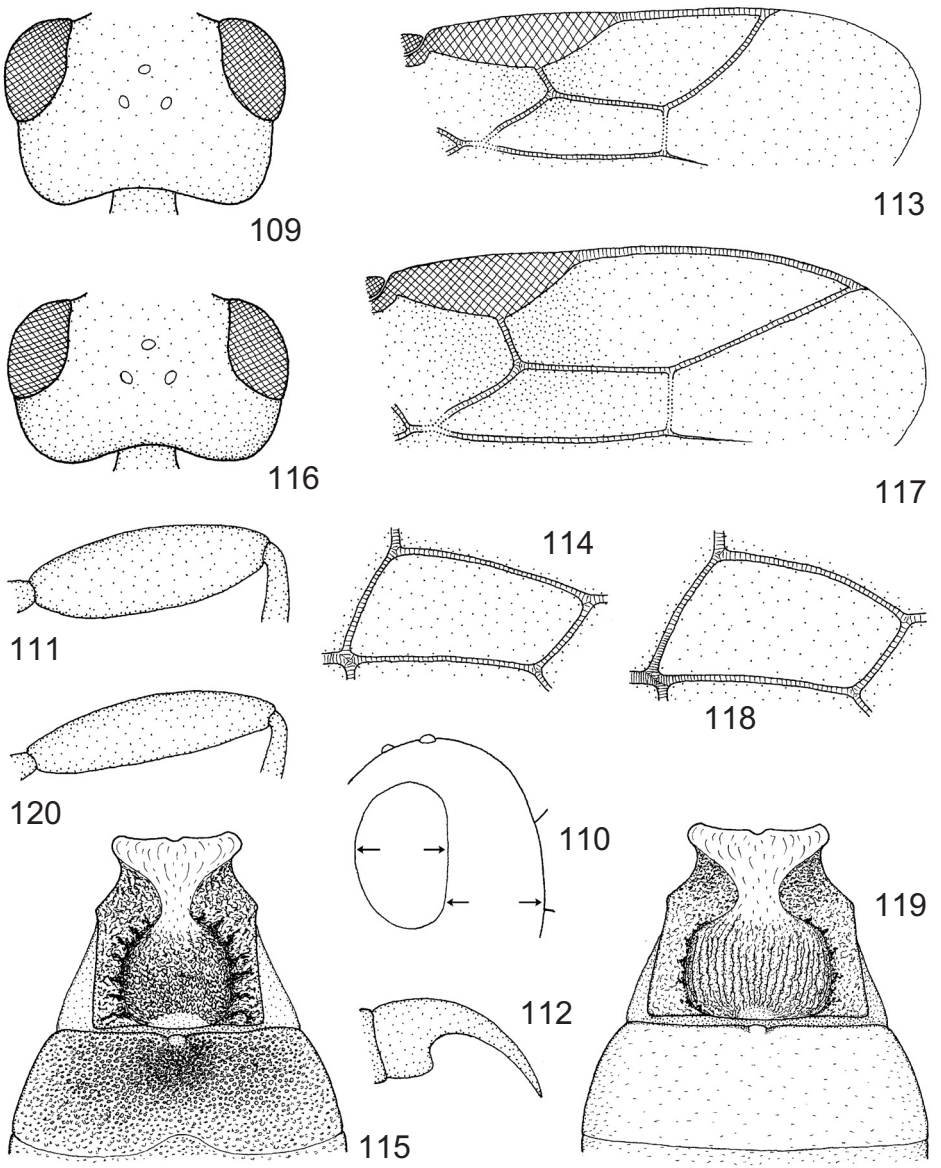
Bracon (Lucobracon) roznevani sp. n.
(Figs 109–115)

Type material – Female holotype: Algeria, wil. Médéa, Médéa, 30 April 1990, leg. I. ROZNER. It is in good condition: (1) glued on a pointed card by the mesosternum, (2) right pair of wings apically slightly creased, (3) right middle tarsus and right hind tarsomeres 1–3 somewhat embedded into the transparent gum. The holotype is deposited in HNHM, Hym. Typ. No. 11900.

Etymology – The new species is dedicated to Mr. ISTVÁN ROZNER, coleopterist and persistent collector of insects for decades, my good friend and collector of the holotype. The specific epithet"roznevani" is an abbreviation of his full name (in Hungarian orthography) rozne(r ist)van(i).

Description of the female holotype – Body 2.9 mm long. Antenna short, about as long as head and mesosoma combined, with 21 antennomeres. First flagellomere 2.6 times and penultimate flagellomere 1.25 times as long as broad; flagellum distally very slightly thickening. Head in dorsal view subcubic (Fig. 109), 1.5 times as broad as long, eye 1.3 times as long as temple, temple moderately rounded, occiput excavate. Eye in lateral view 1.6 times as high as wide, temple widening ventrally and slightly wider than eye (Fig. 110, see arrows). Horizontal diameter of oral opening nearly 1.7 times longer than shortest distance between opening and eye. Head polished, face and cheek granulose.

Mesosoma in lateral view elongate, twice as long as high. Pronotum granulose. Notaulix weakly distinct, along it mesoscutum granulose, otherwise mesoscutum polished.



Figs 109–120. *Bracon* (*Lucobracon*) *roznevani* sp. n.: 109 = head in dorsal view, 110 = head in lateral view, 111 = hind femur, 112 = claw, 113 = distal part of right forewing, 114 = first discal cell. – *Bracon* (*Lucobracon*) *semifusus* PAPP, 1965: 115 = tergites 1–2, 116 = head in dorsal view, 117 = distal part of right forewing, 118 = first discal cell, 119 = tergites 1–2, 120 = hind femur

Scutum polished. Mesopleuron granulose. Propodeum rugo-granulose, antero-medially with less distinct keel. Hind coxa rugulose. Hind femur 2.9 times as long as broad medially (Fig. 111). Claw curved and with a small basal lobe like in Fig. 112.

Forewing one-fifth shorter than body. Pterostigma (Fig. 113) 3.6 times as long as wide and issuing *r* distally from its middle; *r* short, 0.5 times as long as width of pterostigma. Second submarginal cell long, *3–SR* 1.4 times longer than *2–SR*, *SR1* bent and ending far before tip of wing; *1–R1* 0.75 times as long as pterostigma. First discal cell long and fairly narrow, *1–M* 1.3 times length of *m–cu*, *1–SR–M* 2.2 times as long as *1–M* (Fig. 114).

First tergite subquadrate (Fig. 115), a bit longer than broad behind, hardly broadening beyond pair of spiracles; margin of scutum crenulate, surface of scutum rugulo-granulose. Second tergite transverse, 2.6 times as broad behind as long laterally, tergites 2–3 equal in length, suture between them faintly distinct and medially deeply sinuate. Second tergite granulose (Fig. 115), third tergite very finely granulose, further tergites polished. Hypopygium small, ovipositor sheath as long as hind tarsomeres 1–2 combined.

Body black. Antenna black, flagellomeres 1–6 with weakening brownish suffusion. Palpi dark brown. Tegula black with brownish tint. Fore coxa, trochanters, femur distally, tibia and tarsus brownish yellow, femur proximally blackish. Middle coxa and trochanters brownish yellow, coxa basally blackish; tarsi 2–3 brownish yellow with weak darkening suffusion, otherwise legs 2–3 black. Wings subhyaline, pterostigma greyish brown, veins light greyish brown.

Male and host unknown.

Distribution – Algeria.

Taxonomic position – Within the subgenus *Lucobracon* FAHRINGER, 1927, *Bracon roznevani* sp. n. is nearest to *Bracon semifusus* PAPP (PAPP 1965: 403) considering their short marginal cell of forewing, sculptured propodeum, indistinct suture between tergites 2–3 and black colour of head and mesosoma; the two species are separated by the following features:

1(2) Head in dorsal view subcubic, 1.5 times as broad as long, eye 1.3 times as long as temple, temple moderately rounded (Fig. 109). Forewing: *1–R1* 0.75 times as long as pterostigma, pterostigma 3.6 times as long as wide and *SR1* ending far before tip of wing (Fig. 113). First discal cell less broadening proximally, i.e. *1–M* 1.3 times as long as *m–cu* (Fig. 114). First tergite a bit longer than broad behind, rugose (Fig. 115). Hind femur 2.9 times as long as broad medially (Fig. 111). Fore coxa and trochanters brownish yellow. Female: 2.9 mm. – Algeria
Bracon (Lucobracon) roznevani sp. n.

2(1) Head in dorsal view transverse, 1.75–1.8 times as broad as long, eye 1.6 times as long as temple, temple rounded (Fig. 116). Forewing: *1–R1* one-fifth (or 1.35 times) longer than pterostigma, pterostigma three times longer than wide and *SR1* approaching tip of wing (Fig. 117). First discal cell more broadening proximally, i.e. *1–M* about 1.5 times as long as *m–cu* (Fig. 118). First tergite as long as broad behind to a bit broader behind than long, striated (Fig. 119). Hind femur 3.3–3.5 times (exceptionally 2.6 times) as long as broad medially (Fig. 120). Fore coxa and trochanters black. Female: 3.5–4.5 mm. – Hungary, Moldavia, Turkey, Algeria *Bracon* (*Lucobracon*) *semifusus* PAPP, 1965

Bracon (Bracon) xaxon sp. n.
(Figs 121–127)

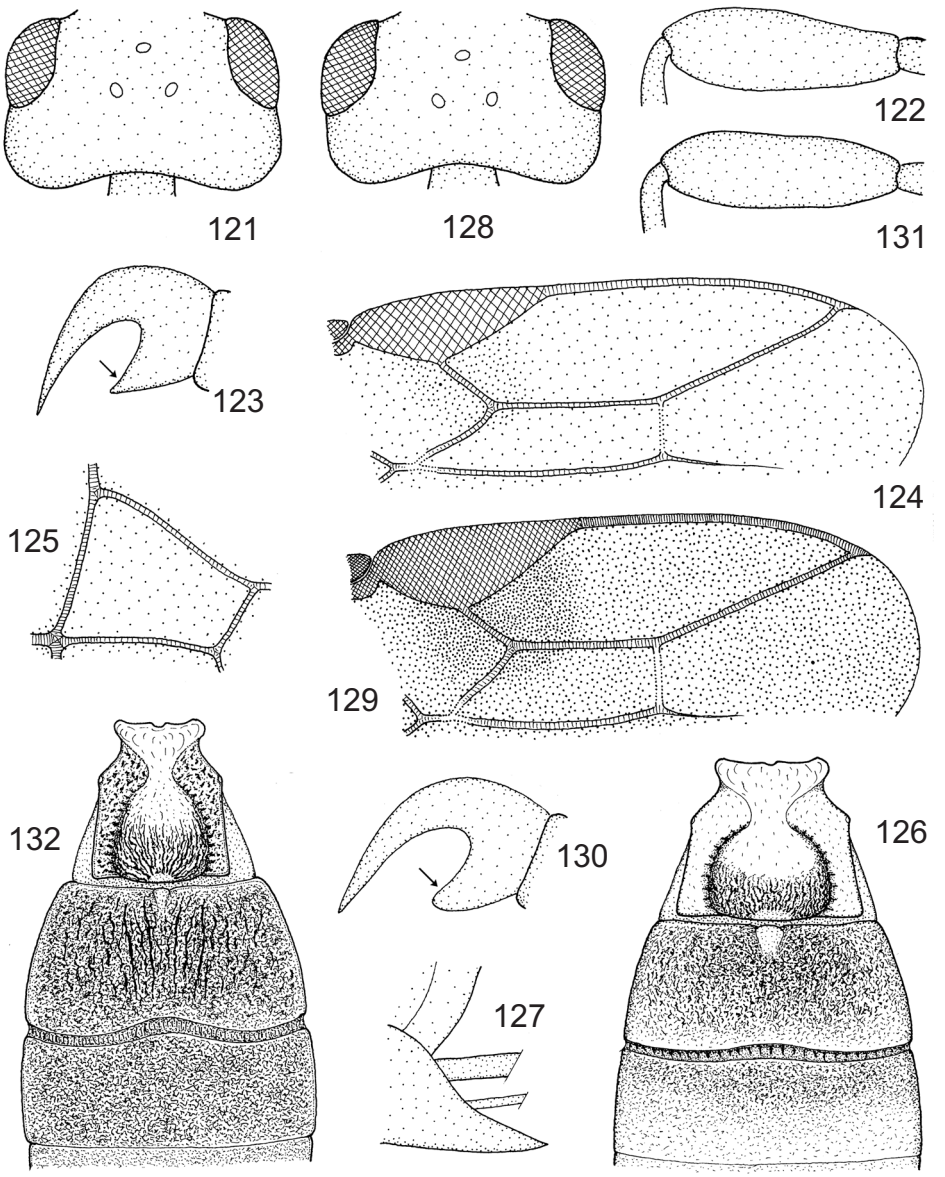
Type material – Female holotype: Armenia, Tsakhkadzor, 2000 m, 4 June 1980, leg. J. PAPP (loc. no. 139 in PAPP 1980). It is in good condition: (1) glued on a pointed card by the mesosternum, (2) right antenna deficient, i.e. with 16 antennomeres, (3) right fore wing somewhat creased. The holotype is deposited in HNHM, Hym. Typ. No. 11907.

Etymology – The species epithet "xaxon" is a fantasy name.

Description of the female holotype – Body 3.2 mm long. Left antenna shorter than body, with 27 antennomeres (right flagellum deficient: with 16 flagellomeres). First flagellomere 1.7 times as long as broad, further flagellomeres gradually shortening and attenuating so that penultimate flagellomere 1.5 times as long as broad. Head in dorsal view less transverse (Fig. 121), 1.65 times as broad as long, temple slightly swollen and just shorter than eye. Ocelli small, elliptic, OOL one-fourth longer than POL. Eye in lateral view 1.6 times as high as wide, temple one-fourth less wide than eye and evenly wide beyond eye. Horizontal diameter of oral opening somewhat longer than shortest distance between opening and eye. Malar space as long as basal width of mandible. Head polished.

Mesosoma in lateral view 1.3 times as long as high, polished. Notaulix indistinct. Propodeum polished. Hind femur 2.9 times as long as broad, broadening distally (Fig. 122). Hind basitarsus as long as tarsomeres 2–3 combined. Claw deeply curved, its basal lobe somewhat pointed (Fig. 123, see arrow).

Forewing longer than body. Pterostigma (Fig. 124) 2.8 times as long as wide and issuing *r* proximally from its middle, *r* as long as width of pterostigma. Second submarginal cell long, *3–SR* 1.75 times longer than *2–SR*, *SR1* straight, 1.6 times longer than *3–SR* and approaching tip of wing. First discal cell fairly high, *1–M* twice as long as *m–cu*, *1–SR–M* faintly S-like and almost 1.3 times as long as *1–M* (Fig. 125).



Figs 121–132. *Bracon* (*Bracon*) *xaxon* sp. n.: 121 = head in dorsal view, 122 = hind femur, 123 = claw, 124 = distal part of right forewing, 125 = first discal cell, 126 = tergites 1–3, 127 = hind end metasoma. – *Bracon* (*Bracon*) *leptus* MARSHALL, 1897: 128 = head in dorsal view, 129 = distal part of right forewing, 130 = claw, 131 = hind femur, 132 = tergites 1–3

First tergite (Fig. 126) slightly broader behind than long, beyond pair of spiracles less broadening, scutum posteriorly rugo-rugulose, its margin crenulated. Second tergite 2.3 times as broad behind as long laterally, somewhat (i.e. 1.2 times) longer laterally than long third tergite medially. Suture between tergites 2–3 bisinuate, deep, crenulate. Tergites posteriorly with weakening sculpture: rugose, rugulose, subrugulose to uneven (Fig. 126). Hypopygium pointed (Fig. 127), ovipositor sheath long, nearly as long as fore wing.

Antenna black. Ground colour of body black; face, orbit partly, pronotum laterally, mesoscutum behind and scutellum brownish yellow. Lateral margin of tergites and hypopygium yellow. Wings faintly brownish fumous, pterostigma and veins opaque brownish.

Male and host unknown.

Distribution – Armenia.

Taxonomic position – Within the subgenus *Bracon* FABRICIUS, 1804, *Bracon xaxon* sp. n. is closest to *Bracon leptus* MARSHALL based on the long second tergite (Figs 126, 132). The two species are distinguished by the following features:

1(2) Head in dorsal view (Fig. 128) 1.7–1.8 times as broad as long, eye (1.2–)1.3 times longer than temple, temple rounded. Forewing: *SR1* reaching tip of wing, *3–SR* 1.5–1.6 times as long as *2–SR*, second submarginal cell less narrow (Fig. 129). Basal lobe of claw less pointed (Fig. 130, see arrow). Hind femur 3.1–3.3 times as long as broad, indistinctly broadening distally (Fig. 131). Second tergite twice broader behind than long laterally, its sculpture with striate elements (Fig. 132). Wings brownish fumous. female and male: (3–)3.5–5.5 mm. – Palaearctic Region, in southern half of Europe frequent
Bracon (*Bracon*) *leptus* MARSHALL, 1897

2(1) Head in dorsal view (Fig. 121) 1.65 times as broad as long, eye slightly longer than temple, temple slightly swollen. Forewing: *SR1* approaching tip of wing, *3–SR* 1.75 times as long as *2–SR*, second submarginal cell narrow (Fig. 124). Basal lobe of claw pointed (Fig. 123). Hind femur 2.9 times as long as broad, broadening distally (Fig. 122). Second tergite 2.3 times as broad behind as long laterally, its sculpture without striate elements (Fig. 126). Wings subhyaline. Female: 3.2 mm. – Armenia **Bracon (Bracon) xaxon** sp. n.

The new species is also near *Bracon* (*Lucobracon*) *surucicus* BEYARSLAN (BEYARSLAN 2002: 196) (this species is known to me only by its original description). The two species differ from each other by the following features:

1(2) Mesosoma in lateral view 1.7 times as long as high (subgeneric difference). Eye in dorsal view twice as long as temple. Forewing: *SR1* reaching tip of wing (cf. Fig. 10 in BEYARSLAN 2002: 195). First tergite 0.7 times as long as broad behind, i.e. tergite broader before its hind end than long, second tergite 1.8 times longer than third tergite (cf. Fig. 12 in BEYARSLAN 2002: 195). Black, metasoma reddish brown with black pattern on first, second and seventh tergites. Female: 2.7 mm. – Turkey
Bracon (*Lucobracon*) *surucicus* BEYARSLAN, 2002

2(1) Mesosoma stout, in lateral view 1.3 times as long as high (subgeneric difference). Eye in dorsal view slightly longer than temple (Fig. 121). Forewing: *SR1* approaching tip of wing (Fig. 124). First tergite somewhat longer than broad behind, second tergite 1.2 times longer than third tergite (Fig. 126). Black, tergites laterally yellow. Female: 3.2 mm. – Armenia **Bracon (Bracon) xaxon** sp. n.

*

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