

Subgenus *Osculobracon* (Hymenoptera: Braconidae: *Bracon*) of Turkey: New Distribution Records and Keys to Subgenera and Species

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ABSTRACT

A key to eight Turkish subgenera of *Bracon* is provided. Five species of subgenus *Osculobracon* are reported from Turkey based on literature records and specimens collected from mainly Central and East Anatolia. A key to five species of *Osculobracon* Papp from Turkey is given, together with illustrations of important taxonomic characters. *Bracon* (*Glabrobracon*) *bilgini* and *Bracon* (*Glabrobracon*) *erzurumiensis* are transferred to subgenus *Osculobracon* in view of the weakly sclerotized of the third tergite and curved claws of all fifth tarsomeres. New distributional records for five species of *Osculobracon* are reported for Turkey.

Key words: *Osculobracon*, *Glabrobracon*, *Bracon*, Hymenoptera, identification keys, Turkey.

INTRODUCTION

The genus *Bracon* Fabricius, 1804 (Braconidae: Braconinae) is a rather large genus with a world-wide distribution, but most diverse in the Palearctic and Neotropical region. 1726 *Bracon* species have been described to date (Yu *et al.* 2006).

Bracon is represented by 17 subgenera: *Asiabracon* Tobias 1957, *Bracon* Fabricius 1804, *Cyanopterobracon* Tobias 1957, *Foveobracon* Tobias 1961, *Glabrobracon* Fahringer 1927, *Habrobracon* Ashmead 1895, *Lucobracon* Fahringer 1927, *Ophthalmobracon* Tobias, 1957, *Orientobracon* Tobias 2000, *Orthobracon* Fahringer 1927, *Pappobracon* Tobias 2000, *Pigeria* van Achterberg 1985, *Pilibracon* Tobias 1961, *Punctobracon* Papp 1996, *Rostrobracon* Tobias 1957, *Sculptobracon* Tobias 1961 and *Uncobracon* Papp 2008. (Yu *et al.* 2006).

Up to now, various authors gave *Bracon* identification keys that may have made it easier to diagnose (Abdinbekova 1975, Belokobylskij & Tobias 2000, Fahringer 1928, Telenga 1936, Tobias 1976, 1986). Beyarslan & Fischer (1990) gave an identification key for Palearctic species of the subgenus *Glabrobracon* Tobias, using little variable characters.

Papp (2008) briefly revised the genus *Bracon* including subgenera *Bracon*, *Cyanopterobracon*, *Glabrobracon*, *Lucobracon*, *Osculobracon* and *Pigeria* from the western Palearctic region. He described the new subgenus *Osculobracon* to include

those species with the third tergite weakly sclerotized and claws of fifth tarsomeres faintly curved. The type species was *Bracon osculator* Nees. A total of eleven species were assigned to the new subgenus *Osculobracon*. *B. (O.) cingillus* Tobias 2000, *B. (O.) cingulator* Szepliget 1901, *B. (O.) ciscaucasicus* Telenga 1936, *B. (O.) junicola* Ashmead 1889, *B. (O.) koreanus* Papp 1998, *B. (O.) melanopsis* Ashmead 1891, *B. (O.) osculator* Nees 1811, *B. (O.) pelliger* Tobias 1961, *B. (O.) repetekiensis* Tobias 1967, *B. (O.) subcingillus* Tobias 2000 and *B. (O.) venustus* Telenga 1936.

Three species of *Osculobracon* (*cingulator*, *ciscaucasicus*, and *osculator*) are known in the fauna of Turkey (Beyarslan *et al.* 2005, 2008).

MATERIAL AND METHOD

Adult braconid wasps from Turkey were collected during our collecting trips in the years 1993-2008. Sweeping nets and light traps were used to obtain samples on grass-type plants. The specimens were then pinned and labeled according to taxonomic rules and regulations.

One hundred ninety *Bracon* specimens were examined. The locality data of the identified species and general distributions are given. An identification key is provided for 5 species of *Osculobracon* from Turkey with relevant figures of the wings. The specimens are deposited in the collection of the Zoological Museum of the Department of Biology, Trakya University.

RESULTS

Subgenus *Osculobracon* Papp, 2008

Type species: *Bracon osculator* Nees, 1911

Distribution: Holarctic

Subgeneric differences: (1) similar to subgenus *Glabrobracon* except chitinization of metasoma from the third tergite: fore half to two-thirds/ three-fourths of tergites weakly chitinized (or weakly sclerotized). Second tergite usually polished, less usually (weakly) sculptured (2) Claws of fifth tarsomeres faintly curved (Papp, 2008).

Bracon (Osculobracon) bilgini Beyarslan, 2002

Bracon (Glabrobracon) bilgini Beyarslan, 2002. *Biologia*. 57(2): 139-146.

Material examined: Ankara-Haymana-Balçıkhisar, 10.07.2007, 1♀; Ankara-Kalecik-Elmapınar, 28.05.2007, 3♂♂, 1♀; Ankara-Yenikut-İlyakut, 08.06.2007, 1♀; Çorum-Dodurga-Güçümen, 28.06.2004, 1♀; Eskişehir-Bilecik Yolu, 07.07.2007, 1♀; Kırşehir-Kaman-Darıözü, 16.09.2006, 3♀♀; Kırşehir-Özbağ, 16.09.2006, 1♀; Konya- Beyşehir-Altınapa, 23.04.2001, 1♂; Nevşehir-Gülşehir-Açıksaray, 12.09.2006, 2♀♀; Nevşehir-Ürgüp, 13.09.2006, 2♀♀; Sivas-Sincan Yolu, 31.05.2007, 1♀; Sivas-Zara-Ağalıkçay, 31.05.2007, 1♀; Elazığ-Baskil-Canbeyler, 03.06.2007, 2♀♀; Elazığ-Baskil-Canbeyler, 03.06.2007, 3♀♀; Elazığ-Karaçavuş 12.06.2008, 1♂; Elazığ-Keban-Altınyaka, 04.06.2007, 1♀; Elazığ-Keban-Aydınlar, 16.07.2007, 1♀; Elazığ-Keban-İbolar, 16.07.2007, 1♀; Malatya-Çiftlik, 03.06.2007, 1♀; Malatya-Sultansuyu Harası, 05.06.2007, 1♂; 14.07.2007, 3♂♂; Tunceli-Merkez-Aktuluk, 27.08.2008, 2♀♀; Tunceli-Pertek-Tozkoparan, 13.06.2008, 1♀.

General Distribution: Palaearctic (Turkey) (Yu *et al.*, 2006).

Distribution in Turkey: Artvin, Gümüşhane, Rize, Trabzon (Beyarslan & Çetin

Erdoğan, 2010), Kastamonu (Beyarslan *et al.*, 2005), Amasya, Çorum, Ordu, Tokat (Beyarslan *et al.*, 2008)

Hosts: Unknown.

Bracon (Osculobracon) cingulator Szépligeti, 1901

Bracon cingulator Szépligeti 1901: 267 (in key) and 280 (description) (in Hungarian), 1904 (1901): 185 (in key) and 191 (description) (in German)

Material examined: Ankara- Kalecik-Elmapınarı, 28.05.2007 2♀♀, 3♂♂; Kayseri-Sızır, 17.05.2002, 1♀, 1♂; Sivas-Gülova-Akincılar, 29.05.2002, 1♀; Sivas-Taşlıdere, 23.05.2001, 3♀♀; Elazığ-Baskil-Hacımustafa, 04.06.2007, 1♂; Elazığ-Cip Barajı, 12.6.2008, 1♂, 1♀; Elazığ-Keban-Ulupınar 11.06.2008 1♂; Malatya-Battalgazi, 10.6.2008, 1♀; Malatya-Sultansuyu Harası, 05.06.2007, 1♂; 14.07.2007, 1♂; Tunceli-Merkez-Aktuluk, 27.08.2008 2♀♀; Tunceli-Pertek-Cankurtaran 13.06.2008 1♂.

General Distribution: Palaearctic (Germany, Greece, Hungary, Italy, Korea, Moldova, Poland, Russia, Tataristan, Tunisia) (Yu *et al* 2006).

Distribution in Turkey: Samsun, Tokat (Beyarslan *et al.* 2008),

Hosts: Unknown.

Bracon (Osculobracon) ciscaucasicus Telenga, 1936

Bracon (Glabrobracon) ciscaucasicus Telenga, 1936. 145 (in key)

Material examined: Adıyaman, Gölbaşı, 20.09.2005, 1♀, Eskişehir, Sündiken Dağı, Geriz, 09.07.2007, 1♀.

General Distribution: Palaearctic (Azerbaijan, Kazakhstan, Kyrgyzstan, Mongolia, Turkey, Ukraine) (Yu *et al* 2006).

Distribution in Turkey: Zonguldak (Beyarslan *et al.* 2005), Amasya (Beyarslan *et al.* 2008)

Hosts: Unknown.

Bracon (Osculobracon) erzurumiensis Beyarslan, 2002

Bracon (Glabrobracon) erzurumiensis Beyarslan, 2002. *Biologia*. 57(2): 142

Material examined: Erzincan-İliç-Bağışdaş, 26.08.2008, 1♀, Yozgat-Tayyip 29.05.2007, 1♀; Eskişehir-Sündiken-Geriz, 9.7.2007, 1♀

General Distribution: Palaearctic (Turkey) (Yu *et al.*, 2006).

Distribution in Turkey: Erzurum, Kahramanmaraş, Kırklareli (Beyarslan, 2002)

Hosts: Unknown.

***Bracon (Osculobracon) osculator* Nees, 1811**

Bracon osculator Nees von Esenbeck, 1811. *Meg. Ges. nat. Fr. Berl.* 5(10)

Bracon (Glabrobracon) osculator Fahringer 1928. *Opusc. bracon* 1 (7-9): 475

Material examined: Aksaray-Eskil-Bozcamahmut, 10.09.2006, 1♂; Aksaray-Ihlara; 11.09.2006, 1♀; Ankara, Kalecik, Elmapınarı, 28.05.2007 2♀♀, 3♂♂, Bartın 09.06.2007, 2♀♀; Bartın-Kurucaşile-Danişment, 27.05.2007, 1♂; Bayburt Merkez 10.08.2004, 2♀♀; Çanakkale-Lapseki, 06.05.1993, 3♂♂; Çankırı Korgun 28.05.2007, 2♀♀; Çankırı-Kalecik 29.05.2002 2♀♀; Edirne-Süleoğlu, 29.06.1993, 1♂; Elazığ-Baskil-Canbeyler, 03.06.2007, 1♀, 2♂♂; Elazığ-Baskil-Hacımustafa, 04.06.2007, 1♂; Elazığ-Cip Barajı, 04.06.2007, 1♂; Elazığ-Keban-Altınyaka, 04.06.2007, 1♀; Elazığ-Sün, 12.06.2008, 1♀; Elazığ- Kovancılar-Pınartepe 29.08.2008 1♂; Erzincan-İliç-Kuruçay, 26.08.2008, 1♀; Erzincan-Kemah-Soğuksular, 21.08.2008, 2♀♀; Erzincan-Kemaliye-Yuva, 26.08.2008 2♀♀, 1♂; Erzincan-Tercan-Altunkent, 24.08.2008, 1♀; Erzincan-Tercan-Mercan, 24.08.2008, 1♀; Erzincan-Üzümlü-Demirpınar, 24.08.2008, 1♀; Erzincan-Üzümlü-Geyikli, 15.06.2008, 3♀♀; Eskişehir Sündiken Geriz 09.07.2007, 2♀♀;

Eskişehir-Bilecik Yolu, 07.07.2007, 1♂; Eskişehir-Çatacık-Geyik Ürt., 09.07.2007, 1♂; Kayseri Kalkancı 12.07.2007, 2♀♀; Kayseri-Bağpınar, 14.09.2006, 2♂♂, 1♀; Kayseri-Bünyan-Ekrek, 12.07.2007, 1♀; Kayseri-Gömeç, 14.09.2006, 1♂; Kayseri-Talas-Başakpınar, 06.06.2007, 2♂♂; Kayseri-Yeşilhisar-Kuşçu, 15.09.2006, 2♂♂; Kırıkkale, Keskin, Yeniyapan, 05.06.2008, 1♂; Kırşehir-Kaman, 01.07.2007, 1♂; Kırşehir-Kaman-Darıözü, 16.09.2006, 1♀; Kırşehir-Mucur-Kurugöl, 07.06.2007, 1♂; Konya-Cihanbeyli 20.07.2007, 1♂; Konya-Sarıhaçlı, 26.04.2002, ♂, Konya-Seydişehir, 09.09.2006, 1♀; Malatya-Yazıhan-Surur, 08.06.2008, 3♂♂; Malatya-Akçadağ-AÖL, 03.06.2007, 1♀; Malatya-Darende, 07.06.2008, 1♀; Malatya-Doğanşehir-Polatdere, 02.06.2007, 1♂; Malatya-Doğanşehir-Reşadiye, 14.07.2007, 1♂; Malatya-Doğanşehir-Takaz, 14.07.2007, 1♂; Malatya-Hekimhan-Yazılı, 09.06.2008, 1♀; Malatya-Sultansuyu Harası, 14.07.2007, 2♂♂, 2♀♀; Nevşehir, 02.06.2003, ♀; Nevşehir, Hacibektaş, 07.06.2007, 2♀♀; Nevşehir-Çalış, 05.06.2008, 1♀, 2♂♂; Nevşehir-Hacibektaş, 07.06.2007, 1♀; Nevşehir-Ürgüp, 13.09.2006, 1♀; Niğde-Bor-Kayı, 19.07.2007, 1♂; Sivas Kangal Yeşildere 01.06.2007, 2♀♀; Sivas Zara Ağalıkçay 31.05.2007, 2♀♀; Sivas-Cumhuriyet Üni. Kampus, 18.06.2002, 3♀♀; Sivas-Güçük, 17.05.2002, ♂; Sivas-Gürün 05.06.2002 ♀; Sivas-Şerefiye-Arapçı, 05.05.2001, ♀; Sivas-Zara-Kılınçlar, 22.08.2008, 1♀; Trabzon-Çaykara-Taşhanpazarı, 26.06.2005, 1♀; Tunceli- Pertek- Beydamı 28.08.2008, 1♀; Tunceli-Marçık, 14.06.2008, 1♂; Tunceli-Pertek, 13.06.2008, 2♀♀, 2♂♂; Tunceli-Pertek-Tozkoparan 13.06.2008, 1♀; Tunceli-Pülümür-Kangallı, 14.06.2008, 4♀♀, 1♂; Yozgat Kuşçu 29.05.2007, 1♀; Yozgat Şefaati Karanlıkdere 29.05.2007, 2♀♀, 1♂; Yozgat, Kırım, 29.05.2007, 2♀♀; Yozgat-Kuşçu, 29.05.2007, 1♂; Yozgat-Sorgun-Mahmatlı, 21.08.2008, 2♀♀, 1♂; Yozgat-Şefaati-Karanlıkdere, 29.05.2007, 1♀, 1♂; Yozgat-Yarköy, 21.04.2001, 3♀♀; Zonguldak Devrek Davulga 29.06.2001, 2♀♀; Zonguldak İlikso 08.06.2002, 2♀♀; Zonguldak-Yayla, 27.05.2007, 1♀.

General Distribution: Palaearctic (Germany, Austria, Azerbaijan, Belgium, Denmark, Russia, Former Yugoslavia, Finland, France, Holland, England, Sweden, Italy, Caucasus, Hungary, Mongolia, Poland, Romania, Turkey, Siberia) (Yu *et al.*, 2006).

Distribution in Turkey: Artvin, Bayburt, Gümüşhane, Trabzon (Beyarslan & Erdogan, 2010), Tekirdağ (Beyarslan *et al.*, 2006), Bolu, Çankırı, Kastamonu, Sinop, Zonguldak (Beyarslan *et al.*, 2005), Çanakkale (Beyarslan *et al.*, 2006), Amasya, Çorum, Ordu, Samsun, Tokat (Beyarslan *et al.*, 2008).

Hosts: Lepidoptera: Choreutidae: *Millieria dolosalis* (Heydenreich, 1851), Coleophoridae: *Coleophora albicostella* Duponchel, 1842, *C. alticolella* Zeller, 1849, *C. caespititiella* Zeller, 1839, *C. colutella* Fabricius, 1794, *C. discordella* Zeller, 1849, *C. flaviella* Mann, 1857, *C. frischella* (Linnaeus, 1758), *C. gallipennella* (Hübner, 1796), *C. lutipennella* (Zeller, 1838), *C. milvipennis* Zeller, 1839, *C. obscenella* Herrich-Schäffer, 1855, *C. ochrea* (Haworth, 1828), *C. saponariella* Heeger, 1848, *C. serenella* Zeller, *C. serratella* (Linnaeus, 1761), *C. solitariella* Zeller, 1849, *C. spinella* Schrank, 1802, *C. spiraeella* Rebel, 1916, *C. therinella* Tengström, 1848, *C. trifariella* Zeller, 1849, *C. vibicella* Hübner, 1813, *C. vicinella* Zeller, 1849, *C. vulpecula* Zeller, 1849, Cosmopterigidae: *Cosmopterix eximia* (Haworth, 1828), Tortricidae: *Cydia strobilella* (Linnaeus, 1758), *Gravarmata margarotana* Heinemann, 1863), *Rhyacionia perangustana* Snellen, 1883, Elachistidae: *Elachista contaminatella* Zeller, 1847, Gracillariidae: *Phyllonorycter* sp. Hübner, 1822, Momphidae: *Mompha conturbatella* (Hübner, 1819), Nepticulidae: *Ectoedemia agrimoniae* (Frey, 1858)

Key to Identification of *Bracon* subgenera from Turkey.

1. Mesosoma with granulose sculpture, matte, if lustrous, then weak, soft granulose sculpture always noticeable on lateral sides of mesothorax and, as a rule, mesonotum. Metasoma always with granulose sculpture, sometimes weaker. Body often with yellow spots. Fore-wing second sub-radial cell often short, on anterior margin (2nd section of radial vein) rarely longer than width of cell.....2

- Mesosoma smooth, lacking granulose sculpture, lustrous, only sometimes pronotum with somewhat noticeable granulose sculpture (in that case metasomal tergites in apical half smooth); if rarely mesosoma with granulose sculpture (subgenus *Lucobracon*) then fore-wing marginal cell strongly reduced, body lacking yellow spots and metasoma often entirely smooth or in apical half. Fore-wing second sub-radial cell with rare exception, much longer than width of cell3

2. Second metasomal tergite basally with small triangular field bordered by weak ridge, laterally with rather deep depressions bordering inner side with thin ridge (ridge posteriorly convergent). Antennae as long as body, 32–38- segmented, middle flagellar segments somewhat longer than wide. Fore-wing marginal cell terminating before wing apex, 2nd submarginal cell much longer than wide.....
.....Subgenus *Asiabracon* Tobias, 1957

- Second metasomal tergite basally without small triangular field (bordered by weak ridge) and lacking lateral depressions, often with sculpture and yellow spots. Antennae 16-31 segmented, length of antennae, fore wing marginal and submarginal cell variable.....Subgenus *Habrobracon* Ashmead, 1895

3. Proboscis greatly elongate, usually as long as height of face with clypeus; eyes enlarged and oblong, 2.0 times as long as their width. Ocellar triangle with obtuse angle. Mesonotum (seen laterally) with small umbo.
.....Subgenus *Rostrobracon* Ashmead, 1895

- Visible part of proboscis much shorter than height of face; longitudinal diameter of eye less than 2.0 times as long as transverse; ocelli inequilateral or barely transverse triangle. Mesonotum without trace of umbo.....4

4. Antennae setiform, 40 –70-segmented, flagellar segments transverse. Body with long, dark erected hairs. Metasoma strongly compressed smooth, suture between 2nd and 3rd metasomal tergites weaker on edges, fairly deep in middle; 6th metasomal sternite much shorter, not reaching metasomal apex. Wings distinctly smoky.....
.....Subgenus *Cyanopteroobracon* Tobias, 1957

- Antennae filiform or weakly setiform, usually not less than 40-segmented, flagellar segments often longer than wide, rarely square, in that case usually moniliform. Body with rarely short, light colored, usually appressed and not erected hairs. Combination of other characters different.....5

5. Metasomal tergites entirely sculptured. Ovipositor equal or slightly longer than metasoma. Last segment of hind tarsi not larger than 2nd. Antennae shorter than body, not thickened. Marginal cell on forewing reaching its apex or slightly reduced. Oral cavity not or only slightly wider than its distance from eye.....
.....Subgenus *Bracon s.str.* Fabricius, 1804

- Metasoma entirely smooth or only apical tergites smooth. If apical tergites also somewhat sculptured, then propodeum sculptured along middle (sometimes entirely often with longitudinal ridge) and ovipositor clearly shorter than metasoma (*Orthobracon*), or radial cell on forewing reduced; pre-apical antennal segments somewhat thickened (*Lucobracon*) or maxillary palps very long, longer than height of head (*B. (Glabrobracon) mongolicus* Telenga).....6

6. Marginal cell on forewing large, terminating at wing apex. Oral cavity small, at most slightly wider than its distance from eye. Apical segment of hind tarsi noticeably enlarged not less than 2nd, usually larger. Ovipositor usually shorter than metasoma. Propodeum often sculptured entirely or along middle. Metasomal tergites usually sculptured in basal half but sometimes also apical with smooth sculpture, rarely (*B. terbella*) metasoma smooth. Antennae usually as long as body. Suture between 2nd and 3rd tergites well developed, usually curved. Hind femora short, usually 4.0 times as long as its wideSubgenus *Orthobracon* Fahringer, 1927

- Marginal cell on forewing reduced in size, terminating preapically and/or oral cavity very large, its width much more than its distance from eye, or entire metasoma (rarely except basal tergite) smooth.....7

7. Oral cavity large, much wider than its distance from eye and/or marginal cell on forewing reduced, terminating preapically. Antennae often thickened, with square and transverse flagellar segments. Metasoma usually sculptured in middle of 2nd, 3rd and 4th tergites.....Subgenus *Lucobracon*, Fahringer, 1927

- Oral cavity small, as wide as its distance from eye or slightly more. Marginal cell usually not reduced, terminating at wing apex. Antennae long, usually as long as body, flagellar segments, longer than wide. Ovipositor as long as metasoma or sometimes, slightly longer.....8

8. Metasoma smooth, granulose sculpture on pronotum and basal metasomal tergites, as a rule, absent.....Subgenus *Glabrobracon* Fahringer, 1927

- Metasomal base with coriaceous areas, especially first three metasomal tergites desclerotized (membraneous) and its colour whitish or yellowish. Claws of fifth tarsomeres faintly curved..... Subgenus *Osculobracon* Papp, 2008

Key to all five species of subgenus *Osculobracon* Papp from Turkey

1. Anterior margin of marginal cell on forewing as long as pteostigma; 2-SC+R vein on hind wing short and 0,30 times 1r-m vein (Fig. 1). Ovipositor one-third or half as long as metasoma; coloration variable: yellowish dark brown (Turkish examples) or black, but lower side of metasoma always yellow. Body length 1.90 mm.....*Bracon (Osculobracon) ciscaucasicus* Telenga, 1936

- Anterior margin of marginal cell on fore wing longer than pteostigma; 2-SC+R vein on hind wing not shorter than 0.60 times 1r-m vein (Figs. 2-5).....2

2. Sclerotized part of first metasomal tergite, 2.00 times as long as width. Mesosoma 1.80 times as long as its highth. Second metasomal tergite laterally with large coriaceous areas such that middle part almost triangular on third and fourth tergites, coriaceous areas covering greater part of tergites. Fore-wing SR1 vein as long as 2-M vein (Fig. 2); Body black; coriaceous parts and lower sides of metasoma yellowish. Body 2.00-2.40 mm.....*B.(O.) cingulator* Szépligeti, 1901

- Sclerotized part of first metasomal tergite 1.50 times as long as width. Mesosoma 1.30-1.50 times as long as highth.....3

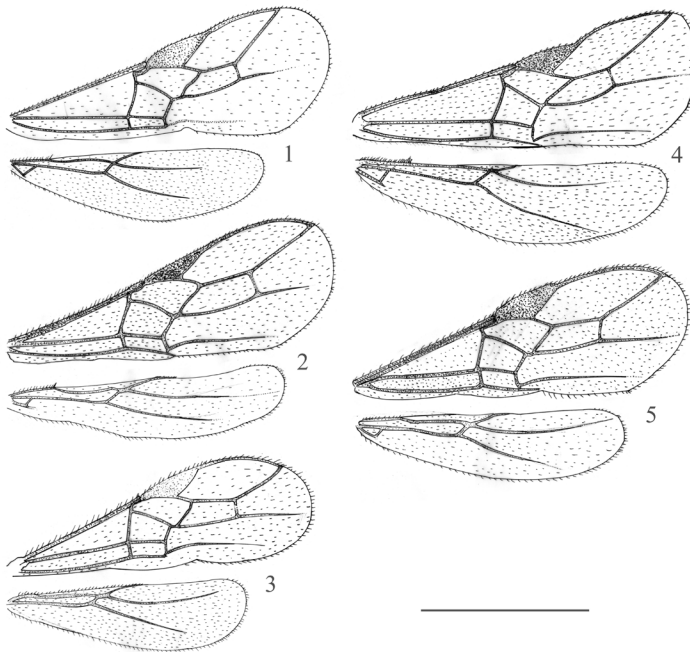
3. Ovipositor sheath as long as metasoma. Antenna with 30 segments, second flagellomera 1.20 times its width. Fore-wing SR1 vein as long as 2-M vein (Fig. 3);

membranous part of third and fourth tergites strongly developed. Pterostigma and body yellow. Body 2.00-2.30 mm*B. (O.) erzurumiensis* Beyarslan, 2002

- Ovipositor sheath shorter than metasoma. second flagellomera 1.75-2.00 times its width. Fore-wing SR1 vein longer than 2-M vein. Coloration variable.....4

4. Ovipositor sheath half as long as metasoma or shorter and 0.21 times forewing. Antennae with 25-30 segments, second flagellomera 1.75 times its width. Fore-wing Cu-a vein interstitial (Fig. 4). Membranous part of second tergite quadrilateral, membranous parts on third and fourth tergites weakly developed. Pterostigma dark-brown, body yellowish, dark brown or black. Body length 1.90-2.50mm *B. (O.) osculator* Nees, 1811

- Ovipositor sheath 0.76 times metasomal length and 0.34 times forewing. Antenna with 25-30 segments, second flagellomera 1.95 times its width. Fore-wing Cu-a vein postfurcal (Fig. 5). Body black, pterostigma and veins brownish-black. Body 2.00 -2.60 mm.....*B. (O.) bilgini* Beyarslan, 2002



Figs. 1-5. Wings: 1. *Bracon (Osculobracon) ciscaucasicus* Telenga, 2. *B.(O.) cingulator* Szépligeti, 3. *B. (O.) erzurumiensis* Beyarslan, 4. *B. (O.) osculator* Nees, 5. *B.(O.) bilgini* Beyarslan. Scales 1.3 mm: (Figs. 1, 2, 4), 1.5 mm: (Fig. 3), 1.27 mm : (Fig. 5).

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