

Full Length Research Paper

A contribution to the knowledge of Blacinae (Hymenoptera: Braconidae) from Turkey

Coskun Guclu

Department of Plant Protection, Faculty of Agriculture, Atatürk University, 25240 Erzurum, Turkey.
E-mail: cguclu@gmail.com; cguclu@atauni.edu.tr

Accepted 11 November, 2010

Present study was conducted in the Middle Anatolian Region and Erzurum Province in Turkey during 2006 to 2007. Totally, 12 species in two subgenera belonging to subfamilies Blacinae, (Hymenoptera: Braconidae) were determined. Of which, three species (*Blacus (Blacus) bovistae* (Haeselbarth, 1973), *B. (B.) humilis* (Nees, 1811) and *B. (B.) paganus* (Haliday, 1835) were newly recorded for the Turkish fauna. For known species new distribution areas were added.

Key words: Blacinae, braconidae, hymenoptera, new records, Turkey.

INTRODUCTION

Blacus Nees, 1818 is the most common genus of the subfamily Blacinae. It is the largest group of the subfamily, and its members are solitary koinobiont endoparasitoids of important phytophagous beetle larvae; the few records from Diptera and other insect orders are almost certainly erroneous (Haeselbarth, 1973; Achterberg, 1988; Shaw and Huddleston, 1991).

The subfamily Blacinae includes the genera, *Dyscoletes* Haliday, *Hellenius* Tobias, *Chalarope* Van Achterberg, *Blacozona* Van Achterberg, *Grypokeros* Van Achterberg, *Mesoxiphium* Van Achterberg, *Stegnocella* Van Achterberg, *Apoblacus* Van Achterberg, *Blacometeor* Tobias and *Blacus* Nees (Achterberg, 1988).

The first record about the subfamily was given by Dalla (1898). In this study; 18 new species were declared. First revision of the whole tribe Blacini was published based on all available material in Holland (Achterberg, 1976). In this study, 53 new species are described, several genera and subgenera are revised. The genera Blacinae are represented with only one or few species except *Blacus*, which is represented with 60 species in the Palearctic region and 154 species worldwide. The latest studies on revision and new species were conducted by some specialist (Achterberg, 1976, 1988; Zettel, 1991; Haeselbarth, 1992; Achterberg and Guerrero, 2000). Recently, the total number of species in the subfamily

Blacinae is brought up to 165 (Cetin and Beyarslan, 2005).

In Turkey, until now, a total of 16 Blacinae species, *Blacus exilis* (Nees, 1812), *B. hastatus* (Haliday, 1835), *B. instabilis* (Ruthe, 1861), *B. interstitialis* (Ruthe, 1861), *B. nigricornis* (Haeselbarth, 1973), *B. rufescens* (Ruthe, 1861), *B. stelfoxi* (Haeselbarth, 1973), *B. teptostigma* (Ruthe, 1861), *B. conformis* (Wesmael, 1835), *B. madli* (Haeselbarth, 1992), *B. ruficornis* (Nees, 1812), *B. armatulus* (Ruthe, 1861), *B. diversicornis* (Nees, 1834), *B. maculipes* (Wesmael, 1835), *B. ruficornis* (Nees, 1812) and *B. nixonii* (Haeselbarth, 1973) have been recorded (Haeselbarth, 1973, 1975a, 1975b, 1992; Tobias, 1986; Achterberg, 1988; Beyarslan et al., 2002; Çetin Erdoğan and Beyarslan, 2005).

In the present study, the number of *Blacinae* species known in Turkey is increased to 19.

MATERIALS AND METHODS

Specimens were collected by sweeping insect net from various habitats in different localities of Ankara (Sereflikochisar, Kaman and Ahiboz), Aksaray (Ortakoy and Evren); Erzurum (Aşkale, Horasan, Ilica, Narman, Oltu, Pasinler and Tortum), Nevşehir (Acigol and Kozakli), Kayseri (Talas, Develi, Yesilhisar and Sarioglan) (Figure 1) during the years of 2006 and 2007. Collected specimens were pinned and labeled according to current taxonomic rules and regulations. All data on distribution of the specimens was

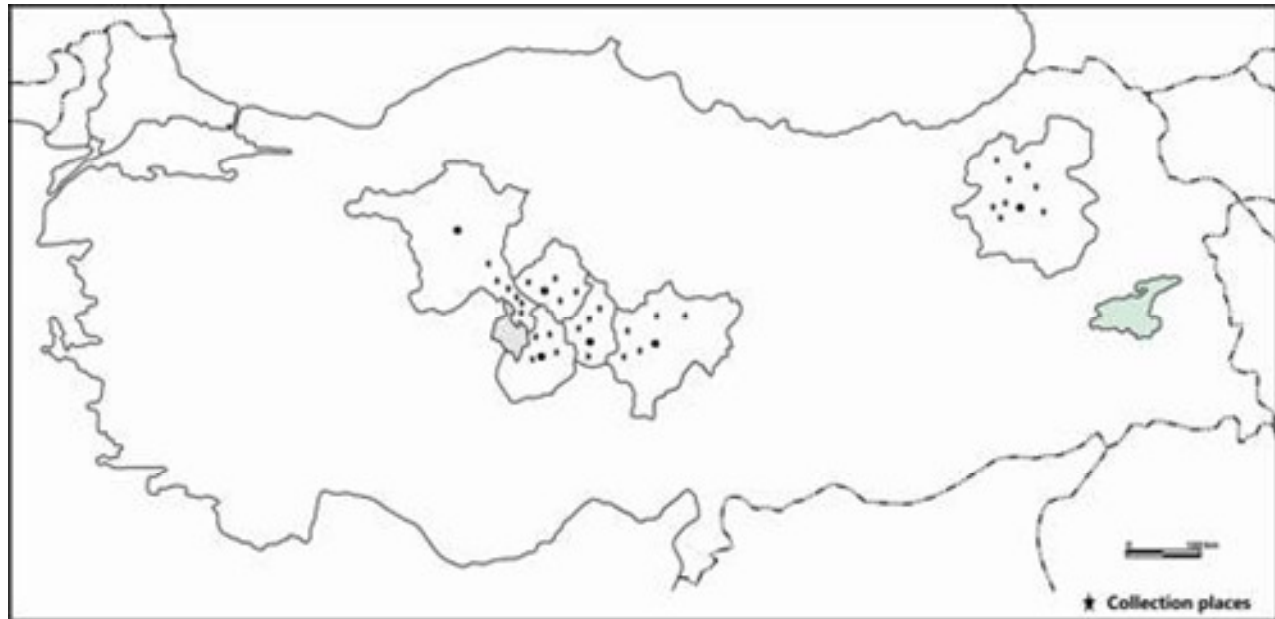


Figure 1. Study areas in the Middle Anatolia and Erzurum province in Turkey.

from Taxapad (Yu et al., 2005).

RESULTS

Braconids belonging to the subfamily of Blacinae have been studied and totally 12 species were determined in two subgenera.

List of the species

Subgenus: *Blacus* (Nees, 1818)

Blacus (Blacus) bovistae (Haeselbarth, 1973)

Blacus bovistae (Haeselbarth 1973a: 145-146).

Blacus (Blacus) bovistae (Achterberg, 1976: 241).

Material: Ankara, Sereflikochisar 39° 1'11.97"N, 33°28'32.37"E, 1160 m, 18.VI.2006, 2♀1♂.

Distribution: Austria, Greece, Hungary, Italy and Switzerland. New record for Turkey.

Host: Unknown

Blacus (Blacus) errans (Nees, 1811)

Bracon errans Nees 1812: 19.

Blacus errans (Haeselbarth, 1973a: 139-141; Tobias, 1976: 116).

Blacus (Blacus) errans Achterberg 1976: 241. *Blacus vagans* (Ruthe, 1861: 155).

Material: Aksaray 38°22'3.84"N, 34°3'8.69"E, 1066 m,

19.VIII.2007, 3♀; 38°20'50.16"N, 34°3'45.52"E, 1019m, 19.VIII.2007, 3♂; 38°16'57.37"N, 33°40'32.83"E, 927 m, 21.VIII.2007, 3♀; 38°20'20.20"N, 33°26'36.05"E, 970 m, 21.VIII.2007, 2♀1♂; 38°39'50.47"N, 34°5'20.23"E, 1246 m, 21.VIII.2007, 3♀1♂; Ankara, Ahiboz 39°35'46.06"N, 32°50'37.43"E, 1098 m, 14.VII.2006, 2♀1♂; 39°36'33.95"N, 32°50'29.28"E, 1072 m, 14.VII.2006, 1♀1♂; Erzurum, Askale 39°55'55.48"N, 40°39'3.99"E, 1648 m, 04.IX.2007, 2♀.

Distribution: Austria, Czech Republic, Denmark, East Germany, England, Finland, Hungary, Italy and Turkey.

Blacus (Blacus) filicornis (Haeselbarth, 1973)

Blacus filicornis (Haeselbarth, 1973a: 155-156; Papp, 1983: 1142).

Blacus (Blacus) filicornis (Achterberg, 1976: 240).

Material: Kirşehir: Kaman, 39°20'54.31"N, 33°42'36.35"E 1280 m 21.VI.2006 2♀; 39°20'51.84"N, 33°42'30.87"E 1280 m 21.VI.2006 2♂; 39°21'10.33"N, 33°42'31.54"E 1233 m 21.VI.2006 2♀; 39°21'17.36"N, 33°42'3.85"E 21.VI.2006 ♂. Nevşehir: Kozakli, 38°57'12.95"N, 34°40'50.16"E 1158 m 02.V.2006 1♀.

Distribution: Austria, Czech Republic, Denmark, Germany, England, Finland, France, Hungary, Ireland, Italy, Latviya to Kazakhstan, Mongolia, Romania and Sweden. New record for Turkey.

Host: Melyridae (*Dasytes* sp.), Scolytidae and Cerambycidae (Coleoptera) (Tobias, 1976).

Blacus (Blacus) exilis (Nees, 1811)

Bracon exilis (Nees 1812: 19).

Blacus exilis (Haeselbarth, 1973a: 157-161).

Blacus (Blacus) exilis (Achterberg, 1976: 233-234).

Material: Erzurum: Aşkale, 39°55'55.48"N, 40°39'3.99"E 1648 m 04.IX.2007 1♀; 39°56'6.60"N, 40°41'52.53"E 1708 m 04.IX.2007 2♂; Horasan, 40° 3'55.31"N, 42°13'41.83"E 1556 m 11.IX.2007 1♀2♂; Narman, 40°18'14.41"N, 41°48'36.78"E 1972 m 09.VI.2007 3♀; 40°16'18.83"N, 42° 1'12.69"E 2395 m 09.VI.2007 2♀1♂; Pasinler, 39°58'42.22"N, 41°37'31.21"E 1680 m 07.V.2006 1♀; 39°59'47.49"N, 41°42'56.20"E 1670m 07.V.2006 1♀3♂; 39°57'14.88"N, 41°43'55.19"E 1650 m 07.V.2006 1♀1♂; Tortum, 40°17'36.83"N, 41°32'58.41"E 1650 m 08.V.2007 2♀1♂; 40°18'3.03"N, 41°31'58.78"E 1550 m 08.V.2007 2♀1♂; 40°17'41.74"N 41°31'44.37"E 1650 m 1♀.

Distribution: Austria, Belgium, Bulgaria, Czech Republic, Denmark, East Germany, England, Finland, France, Greece, Hungary, Ireland, Italy, Kazakhstan, Latvia, Mongolia, Portugal, Spain, Sweden, Switzerland, The Netherlands, Turkey and West Germany.

Host: Scolytidae, Curculionidae, Anobiidae (Coleoptera) (Achterberg, 1988)

***Blacus (Blacus) hastatus* (Haliday, 1835)**

Blacus hastatus (Haliday, 1935: 21; Haeselbarth, 1973a: 137 to 138; Tobias, 1976: 113).

Blacus (Blacus) hastatus (Achterberg, 1976: 240).

Blacus terebrator (Ruthe 1861: 142).

Material: Aksaray, Evren 39°2'8.58"N, 33°46'29.77"E, 900 m, 11.VIII.2006, 3♂; 39°2'34.37"N, 33°48'5.94"E, 876 m, 11.VIII.2006, 2♀1♂; 39°2'50.81"N, 33°50'15.38"E, 856 m, 11.VIII.2006, 1♀1♂.

Distribution: Austria, Czech Republic, Denmark, East Germany, England, Finland, Hungary, Ireland, Scotland, Sweden, The Netherlands, Turkey and West Germany.

Host: *Stereonychus fraxini* De Geer (Coleoptera: Curculionidae) (Achterberg, 1988).

***Blacus (Blacus) humilis* (Nees, 1811)**

Bracon humilis (Nees, 1812: 19).

Blacus humilis (Haeselbarth, 1973a: 128-130; Tobias, 1976: 116).

Blacus (Blacus) humilis (Achterberg, 1976: 235-237; Marsh, 1979: 267).

Blacus trivialis (Haliday, 1835: 122).

Blacus wesmaeli (Ruthe, 1861: 146-147; Achterberg, 1976: 251).

Material: Ankara, Sereflikochisar 39°1'16.28"N, 33°28'23.80"E, 1160 m, 18.VI.2006, ♀♂; 39°1'11.97"N, 33°28'32.37"E, 1160 m, 18.VI.2006, 1♂.

Distribution: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, England, Finland, France, Germany, Hungary, Ireland, Italy, Latviya, Poland, Portugal,

Sweden, Switzerland, The Netherlands, Transcaucasus and Yugoslavia. New record for Turkey.

Host: Cryptophagidae, Scolytidae and Anobiidae (Coleoptera) (Tobias, 1976).

***Blacus (Blacus) interstitialis* (Ruthe, 1861)**

Blacus interstitialis (Ruthe, 1861: 150; Haeselbarth, 1973a: 135-136).

Blacus (Blacus) interstitialis (Achterberg, 1976: 239).

Blacus oscinellae (Fischer, 1963: 206-208).

Material: Aksaray 38°22'3.84"N, 34°3'8.69"E, 1066 m, 19.VIII.2007 ♀1♂; 38°20'50.16"N, 34°3'45.52"E, 1019m 19.VIII.2007, 2♂; 38°19'28.56"N, 34°4'28.83"E, 1018 m, 19.VIII.2007, 2♀; 38°28'53.85"N, 33°47'57.53"E, 927 m, 21.VIII.2007, 1♀2♂; 38°16'57.37"N, 33°40'32.83"E, 927m, 21.VIII.2007, 3♀1♂; 38°20'20.20"N, 33°26'36.05"E, 970 m, 21.VIII.2007, 1♀1♂; 38°39'50.47"N, 34°5'20.23"E, 1246 m, 2♀; 21.VIII.2007, 3♀2♂; 38°28'32.57"N, 34°18'38.50"E, 1260 m, 21.VIII.2007, 1♀1♂; 38°23'9.56"N, 34°38'58.49"E, 1388 m, 22.VIII.2007, 3♀3♂; Ortaköy 38°46'58.73"N, 34°5'35.77"E, 1106 m, 27.VIII.2007, 2♀3♂; 38°45'17.39"N, 33°59'21.53"E, 1186m, 1♂; 27.VIII.2007, 1♀2♂; 38°41'50.62"N, 33°57'7.11"E, 1259 m, 27.VIII.2007, 2♀; 38°40'17.31"N, 33°54'52.31"E, 1273 m, 27.VIII.2007, 3♀; 38°38'48.01"N, 33°55'17.96"E, 1255 m, 27.VIII.2007, 2♀; 38°38'27.86"N, 33°58'35.29"E, 1246 m, 27.VIII.2007, 2♀1♂; Erzurum, Ilica 39°55'25.76"N, 41°4'49.17"E, 1959 m, 14.IX.2007, 2♀3♂; 39°54'56.34"N, 41°5'29.05"E, 2000m, 14.IX.2007, 1♀; 39°55'31.36"N, 41°3'47.39"E, 1988 m, 14.IX.2007, 2♀1♂.

Distribution: Austria, Czech Republic, Denmark, East Germany, Hungary, Sweden, The Netherlands, Turkey and West Germany.

Host: Chloropidae (Diptera) (Achterberg, 1988).

***Blacus (Blacus) paganus* (Haliday, 1835)**

Blacus paganus (Haliday, 1835: 122; Haeselbarth, 1973 53, 117; 1975a: 30; Hellén, 1974: 16; Tobias, 1976: 116; Papp, 1983: 442).

Blacus (Blacus) paganus Achterberg 1976: 238-239; Marsh 1979: 267.

Blacus brevicornis (Ruthe, 1861: 146).

Material: Erzurum, Aşkale 39°56'28.16"N, 40°42'12.43"E, 04.IX.2007, 2♂; 39°57'5.20"N, 40°42'19.30"E, 1715 m, 04.IX.2007, 1♀1♂; 39°57'40.76"N, 40°42'16.65"E, 1770 m, 04.IX.2007, 2♂; 39°55'58.36"N, 40°36'24.44"E, 1622 m, 04.IX.2007, 2♀2♂. Horasan 40° 5'4.37"N, 42°16'37.91"E, 1550 m, 04.IX.2007, 1♂; Ilica 39°55'25.76"N, 41°4'49.17"E, 1959 m, 14.IX.2007, 2♀1♂; 39°54'56.34"N, 41°5'29.05"E, 2000 m, 14.IX.2007, 2♀; 39°55'31.36"N, 41°3'47.39"E, 1988 m,

14.IX.2007, 2♀; Narman 40°16'18.83"N, 42°1'12.69"E, 2395 m, 09.VI.2007, 2♀; Oltu 40°31'37.56"N, 41°59'9.65"E, 1310 m, 18.V.2007, 3♀; 40°33'45.84"N, 42°1'36.40"E, 1251m, 18.V.2007, 2♀1♂; 40°34'49.32"N, 42°3'59.91"E, 1240 m, 18.V.2007, 2♀; 40°24'39.16"N, 41°45'52.42"E, 2200 m, 18.V.2007, 3♂; Pasinler 39°58'42.22"N, 41°37'31.21"E, 1680 m, 07.V.2006, 2♀; 39°59'47.49"N, 41°42'56.20"E, 1670m, 07.V.2006, 1♀1♂; 39°57'14.88"N, 41°43'55.19"E, 1650 m, 07.V.2006, 1♀1♂; Tortum 40°17'36.83"N, 41°32'58.41"E, 1650 m, 08.V.2007, 2♀; 40°18'3.03"N, 41°31'58.78"E, 1550 m, 08.V.2007, 1♀1♂; 40°17'41.74"N, 41°31'44.37"E, 1650 m, 3♀1♂; Kayseri, Yesilhisar 38°18'19.97"N, 35°0'14.78"E, 1427m, 29.VIII.2007, 2♂; Sarioglan 39°6'34.40"N, 35°59'2.99"E, 1179 m, 30.VIII.2007, 1♀1♂.

Distribution: Austria, Bulgaria, Czech Republic, Denmark, East Germany, Finland, France, Germany, Hungary, Ireland, Italy, Mongolia, Russia, Sweden and The Netherlands, . New record for Turkey.

Host: *Antherophagus nigricornis* (F.) (Coleoptera: Cryptophagidae) (Achterberg, 1988).

***Blacus (Blacus) stelfoxi* Haeselbarth 1973**

Blacus stelfoxi (Haeselbarth, 1973a: 144-145).

Blacus (Blacus) stelfoxi (Achterberg, 1976: 241).

Material: Ankara, Sereflikochisar 39°1'25.88"N, 33°28'44.40"E, 1167 m, 18.VI.2006, 3♀1♂; 39°1'16.28"N, 33°28'23.80"E, 1160 m, 18.VI.2006, 1♀2♂; 39°1'11.97"N, 33°28'32.37"E, 1160 m, 18.VI.2006, 1♀; 39°1'43.70"N, 33°28'57.72"E, 1160 m, 18.VI.2006, 2♀1♂; 39°1'31.37"N, 33°29'30.26"E, 1126m, 18.VI.2006, 1♂; 39°2'59.55"N, 33°26'54.88"E, 827 m, 18.VI.2006, 2♀; 39°8'5.64"N, 33°23'27.20"E, 971 m, 19.VI.2006; 39°11'37.76"N, 33°26'40.57"E, 947m, 2♀1♂; Erzurum, Narman 40°18'14.41"N, 41°48'36.78"E, , 09.VI.2007, 2♀; 40°16'18.83"N, 42°1'12.69"E, 2395 m, 09.VI.2007, 2♀; Oltu 40°31'37.56"N, 41°59'9.65"E, 1310 m, 18.V.2007, 3♀2♂; 40°33'45.84"N, 42°1'36.40"E, 1251 m, 18.V.2007, 2♀1♂; 40°34'49.32"N, 42°3'59.91"E, 1240 m, 18.V.2007, 2♀; 40°24'39.16"N, 41°45'52.42"E, 2200 m, 18.V.2007, 4♀3♂; Tortum 40°17'36.83"N, 41°32'58.41"E, 1650 m, 12.V.2006, 1♀,1♂; Kayseri, Sarioglan 39°6'34.40"N, 35°59'2.99"E, 1179 m, 30.VIII.2007, 1♀1♂.

Distribution: Austria, Bulgaria, Finland, France Germany Greece, Hungary, Mongolia, Sweden, The Netherlands and Turkey.

Host: Unknown.

Subgenus: *Ganychorus* (Haliday, 1835)

***Blacus (Ganychorus) armatulus* (Ruthe, 1861)**

Blacus armatulus (Ruthe, 1861: 137; Haeselbarth, 1973a:

111-112, Tobias, 1976: 116; Marsh, 1979: 267).

Blacus (Ganychorus) armatulus (Achterberg, 1976: 204-205).

Material: Erzurum Aşkale 39°55'55.48"N, 40°39'3.99"E, 1648 m, 04.IX.2007, 2♀; 39°56'6.60"N, 40°41'52.53"E, 1708 m, 04.IX.2007, 3♂; 39°56'28.16"N, 40°42'12.43"E, 04.IX.2007, 2♂; 39°57'40.76"N, 40°42'16.65"E, 1770, 04.IX.2007, 2♂; Horasan 40°3'55.31"N, 42°13'41.83"E, 1556 m, 11.IX.2007, 2♂; 40°5'4.37"N, 42°16'37.91"E, 1550 m, 04.IX.2007, 1♂; Narman 40°18'14.41"N, 41°48'36.78"E, 1972 m, 09.VI.2007, 4♀; 40°16'18.83"N, 42°1'12.69"E, 2395 m, 09.VI.2007, 2♀; Oltu; 40°33'45.84"N, 42°1'36.40"E, 1251m, 18.V.2007, 2♀1♂; 40°34'49.32"N, 42°3'59.91"E, 1240 m, 18.V.2007, 2♀; 40°24'39.16"N, 41°45'52.42"E, 2200 m, 18.V.2007, 3♂; Pasinler 39°57'14.88"N, 41°43'55.19"E, 1650 m, 07.V.2006, 1♀1♂; Tortum 40°17'36.83"N, 41°32'58.41"E, 1650 m, 08.V.2007, 2♀; 40°18'3.03"N, 41°31'58.78"E, 1550 m, 08.V.2007, 1♀1♂.

Distribution: Albania, Austria, Czech Republic, East Germany, England, France, Hungary, Poland, Romania, Russia, Sweden, Switzerland and Turkey.

Host: Parasite of Curculionidae (Coleoptera) (Achterberg, 1988).

***Blacus (Ganychorus) diversicornis* (Nees, 1834)**

Bracon diversicornis (Nees, 1834: 49).

Blacus diversicornis (Haeselbarth, 1973a: 107-109; Tobias, 1976: 166).

Blacus (Ganychorus) diversicornis (Achterberg, 1976: 212).

Blacus compar (Ruthe, 1861: 136).

Material: Material: Erzurum Aşkale 39°57'5.20"N, 40°42'19.30"E, 1715 m, 04.IX.2007, 1♀1♂; 39°57'40.76"N, 40°42'16.65"E, 1770 m, 04.IX.2007, 2♂; 39°55'58.36"N, 40°36'24.44"E, 1622 m, 04.IX.2007, 2♀2♂; Horasan 40°5'4.37"N, 42°16'37.91"E, 1550 m, 04.IX.2007, 1♂; Ilica 39°55'25.76"N, 41°4'49.17"E, 1959 m, 14.IX.2007, 2♀1♂; 39°54'56.34"N, 41°5'29.05"E, 2000m, 14.IX.2007, 2♀; 39°55'31.36"N, 41°3'47.39"E, 1988 m, 14.IX.2007, 2♀; Oltu 40°31'37.56"N, 41°59'9.65"E, 1310 m, 18.V.2007, 3♀; 40°33'45.84"N, 42°1'36.40"E, 1251 m, 18.V.2007, 2♀1♂; 40°34'49.32"N, 42°3'59.91"E, 1240 m, 18.V.2007, 2♀; 40°24'39.16"N, 41°45'52.42"E, 2200 m, 18.V.2007, 3♂; Pasinler 39°57'14.88"N, 41°43'55.19"E, 1650 m, 07.V.2006, 1♀1♂.

Distribution: Albania, Austria, Bulgaria, Czech Republic, Denmark, East Germany, England, Finland, France, Hungary, Ireland, Italy, Poland, Romania, Russia, Sweden, Switzerland, The Netherlands, West Germany and Yugoslavia.

Host: Unknown.

***Blacus (Ganychorus) maculipes* Wesmael 1835**

Blacus maculipes (Wesmael, 1835: 94; Haeselbarth,

1973a: 104-106; Tobias, 1976: 116).

Blacus (Ganychorus) maculipes (Achterberg, 1976: 212).
Material: Erzurum, Aşkale 39°55'55.48"N, 40°39'3.99"E, 1648 m, 04.IX.2007, 2♀1♂; 39°56'6.60"N, 40°41'52.53"E, 1708 m, 04.IX.2007, 2♂; 39°56'28.16"N, 40°42'12.43"E, 04.IX.2007, 2♀2♂; 39°57'5.20"N, 40°42'19.30"E, 1715 m, 04.IX.2007, 1♀1♂; 39°57'40.76"N, 40°42'16.65"E, 1770 m, 04.IX.2007, 2♂; 39°55'58.36"N, 40°36'24.44"E, 1622 m, 04.IX.2007, 2♀2♂. Horasan 40°3'55.31"N, 42°13'41.83"E, 1556 m, 11.IX.2007, 2♀2♂; 40°5'4.37"N, 42°16'37.91"E, 1550 m, 04.IX.2007, 2♀1♂; Ilica 39°55'25.76"N, 41°4'49.17"E, 1959m, 14.IX.2007, 2♀1♂; 39°54'56.34"N, 41°5'29.05"E, 2000 m, 14.IX.2007, 2♀; 39°55'31.36"N, 41°3'47.39"E, 1988 m, 14.IX.2007, 2♀; Narman 40°18'14.41"N, 41°48'36.78"E, 1972 m, 09.VI.2007, 4♀; 40°16'18.83"N, 42°1'12.69"E, 2395 m, 09.VI.2007, 2♀1♂; Pasinler 39°58'42.22"N, 41°37'31.21"E, 1680 m, 07.V.2006, 2♀; 39°59'47.49"N, 41°42'56.20"E, 1670 m, 07.V.2006, 1♀3♂; 39°57'14.88"N, 41°43'55.19"E, 1650 m, 07.V.2006, 2♀1♂; Tortum 40°17'36.83"N, 41°32'58.41"E, 1650 m, 08.V.2007, 3♀; 40°18'3.03"N, 41°31'58.78"E, 1550 m, 08.V.2007, 4♀1♂; 40°17'41.74"N, 41°31'44.37"E, 1650 m, 5♀1♂.

Distribution: Austria, Belgium, Bulgaria, Czech Republic, Denmark, East Germany, England, Finland, Hungary, Ireland, Italy, Poland, Romania, Russia, Scotland, Sweden, Switzerland, The Netherlands and Yugoslavia.
Host: Curculionidae (Achterberg, 1988).

DISCUSSION

The majority of the 12 *Blacus* species described in this study are distributed in the Palaearctic region. Of which, three species *B. (B.) bovistae* (Haeselbarth, 1973), *B. (B.) humilis* (Nees, 1811) and *B. (B.) paganus* (Haliday, 1835) were newly recorded for the Turkish fauna. Recent studies show that Middle and East Anatolia is important in terms of braconid diversity. There are many European species from subfamily Blacinae. In this study, European species were mostly determined from Asia Minor and their distribution now includes Asia as well.

REFERENCES

- Achterberg CV (1976). A revision of the tribus Blacini (Hym., Braconidae, Helconinae). Tijdschr. Ent., 118: 159-322.
- Achterberg CV (1988). Revision of The subfamily Blacinae Foerster (Hymenoptera, Braconidae). Zoologische Verhan. pp. 249: 324.
- Achterberg CV, Guerrero ER (2000). A new species of the genus *Blacus* Nees (Hymenoptera: Braconidae: Blacinae) from Canary Islands. Zool. Med. Leiden, 73(32): 487-490.
- Beyarslan A, Inanc F, Cetin O, Aydogdu F (2002). Braconidae species of Turkish Aegean Region. international symposium: Parasitic Hymenoptera; Taxonomy and Biological Control Köszege-Hungary, pp. 285-290.
- Cetin EO, Beyarslan A (2005). Contributions to the Blacinae of Turkey. Entomofauna, 26(1): 1-8.
- Dalla Torre CG (1898). Catalogus Hymenopterorum, IV: *Braconidae*. G. Engelmann, Leipzig, p. 323.
- Haeselbarth E (1973). The *Blacus* species in Europe and Central Asia (Hymenoptera: Braconidae). Veröff. Zool. St.-Samml. Münch, 16: 69-170.
- Haeselbarth E (1975a). Faunistic and taxonomic notes on European *Blacus* species (Hymenoptera: Braconidae). Nachrichtenblatt der Bayerischen Entomologie, 24: 28-31.
- Haeselbarth E (1975b). Result of the 1961 expedition of Albania German Entomological institute 90 review (Hymenoptera: Braconidae) 1. Beitr. Ent., 25: 49-51.
- Haeselbarth E (1992). *Blacus (Ganychorus) madli* sp.n., a new braconid from Turkey (Insecta, Hymenoptera, Braconidae). Nachrichtenblatt der Bayerischen Entomologen, 41: 95-98.
- Shaw MR, Huddleston T (1991). Classification and biology of braconid wasps (Hymenoptera: Braconidae). Handbooks Identification British Insect, 7: 1-126.
- Tobias VI (1976). Brakonidy Kavkaza (Hym., Braconidae). Opređ. Faune USSR, 110: 1-287.
- Tobias V I (1986) Determination of an insect of the European of USSR. volume III part IV Hymenoptera Nauka Leningrad, p. 317 (in russian).
- Yu DS, Achterberg CV, Horstmann K (2005). World Ichneumonoidea 2004. Taxonomy, biology, Morphology and distribution [Braconidae]. Taxapad 2005 (Scientific names for information management) Interactive catalogue on DVD/CDROM, Vancouv.
- Zettel H (1991). An unknown type of *Blacus exilis* from Austria (Hymenoptera: Braconidae). Linzer biol. Beitr., 23(2): 521-524.