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Contributions to the Blacinae fauna of Turkey * (Hymenoptera, Braconidae)

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Abstract

13 species of *Blacus* (Hymenoptera, Braconidae, Blacinae) belonging to 3 subgenera are recorded from the Marmara Region of Turkey. 10 species are new records for the Turkish fauna.

Zusammenfassung

Es werden 13 Arten der Gattung *Blacus* (Hymenoptera, Braconidae, Blacinae) für die türkische Marmara Region festgestellt, die 3 Untergattungen angehören. 10 Arten davon sind neu für die Fauna der Türkei.

Introduction

Blacus NEES, 1818 is the most common and ubiquitous genus of the subfamily Blacinae. It is the largest group of the subfamily, and members of *Blacus* are endoparasitoids of larvae of Coleoptera (SHAW & HUDDLESTON 1991). It differs from other Blacini genera by having tendency to enlarged parastigma (ACHTERBERG 1988).

In Blacinae the genera are represented with only one or few species except *Blacus*, which is represented with 60 species in the Palearctic Region and 154 species world wide. The latest revision studies and new identified species are ACHTERBERG 1976, 1988; ACHTERBERG & GUERRERO 2000; HAESELBARTH 1992; ZETTEL 1991.

Little is known about the *Blacus* fauna of Turkey. To date, a total of 6 species (*Blacus*

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(*Blacus*) *exilis* (NEES, 1812), *B. (B.) instabilis* RUTHE, 1861, *B. (B.) nigricornis* HAESSELBARTH, 1973, *B. (Ganychorus) ruficornis* (NEES, 1812), *B. (G.) conformis* WESMAEL, 1835, *B. (G.) madli* HAESSELBARTH, 1992) have been given in literature (HAESSELBARTH 1973, 1975a, 1975b, 1992; TOBIAS 1986; ACHTERBERG 1988; BEYARSLAN et.al. 2002).

This study, by which faunistic and taxonomic characters of *Blacus* species in Marmara Region were evaluated, was carried out between 1987 and 2002 in 137 localities (Fig.1). A total of 13 species were identified, 8 species belonging to the subgenus *Blacus*, 4 to subgenus *Ganychorus*, and 1 to subgenus *Hysterobolus*, respectively. Of these, 10 species are new records for Turkey. By adding these new records, the number of *Blacus* species in Turkey raises from 6 to 16.

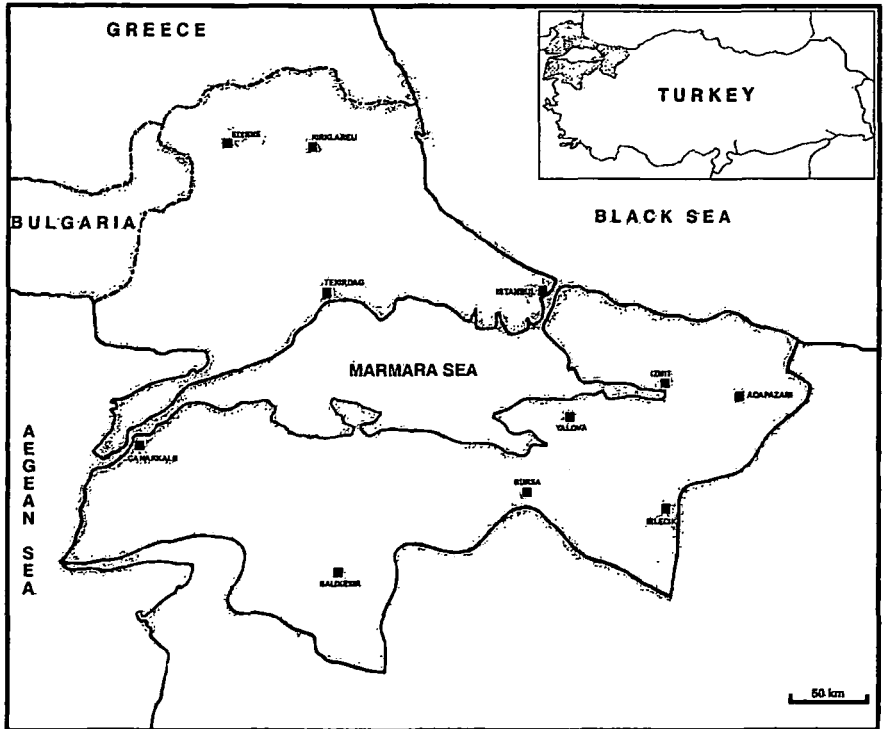


Figure 1: Marmara Region in Turkey.

Subgenus *Blacus* NEES, 1818

Blacus (Blacus) errans (NEES, 1812)

Bracon errans NEES VON ESENBECK, 1812, Mag. Ges. Nat. Fr. Berl. 5: 19.

Blacus (Blacus) errans: VAN ACHTERBERG 1976: 241.

Material examined: İstanbul-Sarıyer-Bilezikçi Çiftliği (Mixed forest, 30m, 24.6.1993, 1♂). - New record for Turkey!

General Distribution: Austria, Denmark, Germany, England, Finland, Holland, Hun-

gary, Italy, former Czechoslovakia, Russia (European parts), Sweden, Switzerland (ACHERBERG 1988), Caucasia (TOBIAS 1986).

***Blacus (Blacus) exilis* (NEES, 1812)**

Bracon exilis NEES VON ESENBECK, 1812, Mag. Ges. Nat. Fr. Berl. 5: 19.

Blacus (Blacus) exilis: VAN ACHTERBERG 1976: 233-234.

Syn: *Blacus intermedius* JANZON, 1975: 137-138.

Material examined: Bursa-Karacabey (Clover field, 50m., 12.07.1993, 1♀); Edirne-Keşan-Paşayığit (Pasture, 100m, 30.7.1993, 1♀); Güllapoğlu Yerleşkesi (Pasture, 41m, 4.10.2001, 1♀); Tekirdağ-Naipköy (Pasture, 30m, 7.9.1999, 1♀).

General Distribution: Austria, Azerbaidzhan, Belgium, Bulgaria, Canada, Denmark, England, Finland, France, Germany, Greece, Holland, Hungary, Ireland, Israel, Italy, Kazakhstan, Mongolia, former Czechoslovakia, Portugal, Spain, Sweden, Switzerland, Turkey, USA (ACHERBERG 1988), Korea (PAPP 1985); Afghanistan (TOBIAS et.al. 1998), Caucasia, Siberia (TOBIAS 1986).

***Blacus (Blacus) hastatus* HALIDAY, 1835**

Blacus hastatus HALIDAY, 1835, Ent. Mag. 3: 21.

Blacus (Blacus) hastatus: VAN ACHTERBERG 1976: 240.

Material examined: İstanbul-Sarıyer-Bilezikçi Çiftliği (Mixed forest, 30 m, 24.6.1993, 1♀). - **New record for Turkey!**

General Distribution: Austria, Denmark, England, Finland, Germany, Holland, Hungary, Ireland, former Czechoslovakia, Scotland, Sweden (ACHERBERG 1988), former Yugoslavia (BRAJKOVIC 1988), Caucasia, Ukraine (TOBIAS 1986).

***Blacus (Blacus) interstitialis* RUTHE, 1861**

Blacus interstitialis RUTHE, 1861, Berl. ent. Z. 5: 150.

Blacus (Blacus) interstitialis: VAN ACHTERBERG 1976: 239.

Material examined: Edirne-Tavuk Ormanı (Mixed forest, 41m, 24.10.1991, 1♀); Güllapoğlu Yerleşkesi (Stream bank, 41m, 16.9.1999, 2♀♀; Pasture, 1.-4.10.2001, 14♀♀); Tekirdağ-Işıklar (Pasture, 110m, 7.8.1991, 2♀♀). - **New record for Turkey!**

General Distribution: Austria, Denmark, Germany, Holland, Hungary, North Africa, former Czechoslovakia, Sweden (ACHERBERG 1988), Afghanistan (TOBIAS et.al. 1998), Finland (KOPONEN 1992).

***Blacus (Blacus) leptostigma* RUTHE, 1861**

Blacus leptostigma RUTHE, 1861, Berl. ent. Z. 5: 152.

Blacus (Blacus) leptostigma: VAN ACHTERBERG 1976: 240.

Material examined: Edirne-Hacımur (Pasture, 50m, 13.6.1987, 1♀; Crop field 27.8.1991, 2♀♀). - **New record for Turkey!**

General Distribution: Germany, Ireland (ACHERBERG 1988).

***Blacus (Blacus) nigricornis* HAESSELBARTH, 1973**

Blacus nigricornis HAESSELBARTH, 1973, Veröff. Zool. St.-Samml. Münch. 16: 149.

Blacus (Blacus) nigricornis: VAN ACHTERBERG 1976: 241.

Material examined: Tekirdağ-Malkara-Izgar (Pasture, 200m, 23.5.1992, 1♀).

General Distribution: England, France, Holland, Hungary, Ireland, Italy, former Czechoslovakia, Sweden, Turkey (ACHERBERG 1988).

***Blacus (Blacus) rufescens* RUTHE, 1861**

Blacus rufescens RUTHE, 1861, Berl. ent. Z. 5: 141.

Blacus (Blacus) rufescens: VAN ACHTERBERG 1976: 239.

Material examined: Balıkesir-Manyas-Kuşçenneti (Mixed forest, 15m, 15.7.1993, 1♂).
- **New record for Turkey!**

General Distribution: Austria, Denmark, Germany, Holland, Romania, Sweden, former Yugoslavia (ACHERBERG 1988), Moldova (TOBIAS 1986), Hungary (PAPP 1999).

***Blacus (Blacus) stelfoxi* HAESELBARTH, 1973**

Blacus stelfoxi HAESELBARTH, 1973, Veröff. Zool. St.-Samml. Münch. 16: 144-145.

Blacus (Blacus) stelfoxi: VAN ACHTERBERG 1976: 239.

Material examined: Adapazarı-Karasu-Hara (Clover field, 50m, 8.7.1993, 1♂); Balıkesir-Manyas-Kayacaköy (Clover field, 100m, 15.7.1993, 1♂); Susurluk-Yahyaköy (Stream bank, 20m, 23.7.2001, 1♀); Edirne-Suakacağı (Oak forest, 210m, 5.7.1997, 1♂). - **New record for Turkey!**

General Distribution: Austria, Bulgaria, Finland, France, Germany, Greece, Holland, Hungary, Mongolia, Sweden (ACHERBERG 1988), Caucasia, Siberia (TOBIAS 1986).

Subgenus *Ganychorus* HALIDAY, 1835

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

Blacus armatulus RUTHE, 1861, Berl. ent. Z. 5: 137.

Blacus (Ganychorus) armatulus: VAN ACHTERBERG 1976: 204-205.

Material examined: Adapazarı-Akyazı-Madenler (Pasture, 180m, 22.9.1992, 1♀); Edirne-Suakacağı (Oak forest, 210m, 5.7.1997, 2♀♀). - **New record for Turkey!**

General Distribution: Albania, Austria, Azerbaidzhan, Canada, England, France, Germany, Hungary, Kazakhstan, former Czechoslovakia, Poland, Romania, Sweden, Switzerland, USA (ACHERBERG 1988).

Blacus (G.) armatulus from the studied area shows some similarities to *B. (G.) diversicornis*. It can be distinguished from *diversicornis* by the long face, bottomly notauli protruding as spin of the lateral carina of scutellum.

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

Blacus diversicornis NEES VON ESENBECK, 1834, Hym. Ichn. affin. Mon. 1: 49.

Blacus (Ganychorus) diversicornis VAN ACHTERBERG 1976: 212.

Material examined: Kırklareli-Kofçaz-Erikler (Pasture, 430m, 2.8.2000, 1♀). - **New record for Turkey!**

General Distribution: Albania, Austria, Bulgaria, Denmark, England, Finland, France, Germany, Holland, Hungary, Ireland, Italy, Kazakhstan, former Czechoslovakia, Poland, Romania, Sweden, former Yugoslavia (ACHERBERG 1988), Korea (PAPP 1985).

***Blacus (Ganychorus) maculipes* WESMAEL, 1835**

Blacus maculipes WESMAEL, 1835, Nouv. Mem. Acad. Brux. 9: 94.

Blacus (Ganychorus) maculipes: VAN ACHTERBERG 1976: 212.

Material examined: Adapazarı-Karasu-Hara (Clover field, 50m, 8.7.1993, 1♂); Sapanca-İstanbul Üniversitesi Tesisleri (Orchard, 60m, 16.8.1994, 1♀); Bilecik-Okluca (Oak and pine forest, 420m, 24.7.2001, 1♀); Vezirhan (Pasture, 75m, 25.7.2001, 1♀); Bursa-İnegöl-Karacaköy (Pasture, 300m, 18.8.1994, 1♀); Edirne-Lalapasa (Meadow, 200m, 6.6.

1987, 1♀ 1♂); Yenikadm (Willow grove, 50m, 13.6.1987, 1♂); Süleoğlu (Crop field, 175 m, 28.5.1988, 2♂♂); Lalapaşa-Hacıdanışment (Oak forest, 450m, 5.6.1988, 1♂); Meriç kenarı (River bank, 41m, 8.6.1993, 8♂♂); Lalapaşa-Kalkansöğüt (Mixed forest, 200m, 5.7.1997, 2♂♂); Suakacağı (Oak forest, 210m, 5.7.1997, 1♂); Lalapaşa-Uzunbayır (Poplar wood, 200m, 5.7.1997, 9♀♀ 11♂♂); Enez (Mixed forest, 20m, 13.8.2000, 1♀); İstanbul-Çatalca-Kızılcaali (Poplar wood, 50m, 14.6.2001, 1♂); Çatalca- Ömerli (Pasture, 80m, 15.6.2001, 2♂♂); Pendik-Kazdağı Çiftliği (Pasture, 50m, 6.7.1993, 1♂); Kırklareli-Demirköy (Mixed forest, 390m, 16.6.1987, 1♂); Kızılıkdere (Pasture, 200m, 2.6.1993, 2♀♀); Lüleburgaz-Türkgeldi Çiftliği (Orchard, 60m, 22.7.2000, 2♀♀); Kofçaz (Stream bank, 380m, 2.8.2000, 2♀♀); Tekirdağ-Hayrabolu-Malkara arası (Willow grove, 230m, 27.7.2000, 1♀); Saray (Oak forest, 150m, 16.6.2001, 1♂). - **New record for Turkey!**

General Distribution: Austria, Belgium, Bulgaria, Denmark, England, Finland, Germany, Holland, Hungary, Italy, former Czechoslovakia, Poland, Romania, Russia (European parts), Scotland, Sweden, Switzerland, former Yugoslavia (ACHTERBERG, 1988).

ACHTERBERG (1988) expresses that *Blacus (G.) maculipes* is generally found in mountainous areas and mostly male individuals occur. We determined this species from mountainous area, but it is also found at lower altitudes. These individuals of *Blacus* we met frequently with many males during our research. They were determined by using museum material.

***Blacus (Ganychorus) ruficornis* (NEES, 1812)**

Bracon ruficornis NEES VON ESENBECK, 1812, Mag. Ges. nat. Fr. Berl. 5: 18.

Blacus (Ganychorus) ruficornis: VAN ACHTERBERG 1976: 203-204.

Material examined: Adapazarı-Akyazı-Madenler (Pasture, 180m, 22.9.1992, 1♀); Karasu-Hara (Clover field, 50m, 8.7.1993, 1♂); Sapanca-İstanbul Üniversitesi Tesisleri (Orchard, 60m, 16.8.1994, 1♀); Geyve-Dereköy (River bank, 30m, 25.7.2001, 13♀♀ 1♂); Pamukova-Mekece (Poplar wood, 110m, 25.7.2001, 3♀♀); Balkesir-Edremit (Pasture, 15m, 22.7.2001, 25♀♀); İvrindi-Osmanlar (Mixed forest, 240m, 22.7.2001, 5♀♀); Susurluk-Demirkapı (Stream bank, 65m, 23.7.2001, 7♀♀); Bilecik-Vezirhan (Orchard, 90m, 21.9.1992, 1♀); Çavuşköy (Clover field, 1000m, 9.7.1993, 1♂); Bayırköy (Poplar wood, 700m, 17.8.1994, 1♀); Küplü (Clover field, 500m, 17.8.1994, 2♀♀); Bursa-İnegöl-Cerrah (Poplar wood, 400m, 10.7.1993, 2♀♀); İnegöl-Mezitli (Pasture, 1450m, 11.7.1993, 1♀); Karacabey-Cambazköy (Pasture, 200m, 12.7.1993; 2♀♀ 1♂); Uluçam-Doğanlı Barajı (Mixed forest, 300m, 13.7.1993, 1♀); İnegöl-Taraklı (Mixed forest, 1275m, 18.8.1994, 4♀♀); Cumalıkızık-Alırızabey ormanı (Pasture, 270m, 18.9.1992, 1♀); Süleymaniye, (1250m, 19.9.1992, 6♀♀); Karacabey-Hara (Clover field, 30m, 23.7.2001, 1♀); Karacabey-Yenikaraağaç (Poplar wood, 30m, 23.7.2001, 19♀♀); İnegöl-Çakırçiftlik (Stream bank, 150m, 24.7.2001, 1♀); Yenişehir-Çayırılı (Orchard, 120m, 24.7.2001, 9♀♀); Yenişehir-Köprühisar (Clover field, 100m, 24.7.2001, 8♀♀); Çanakkale-Ayvacık-Gemedere (Pine wood, 350m, 22.7.2001, 2♀♀); Ezine (Pasture, 30m, 22.7.2001, 10♀♀); Kazdağı (Mixed forest, 700m, 16.9.1992, 1♀); Edirne-Lalapaşa (Meadow, 200m, 6.6.1987, 1♀ 1♂); Tayakadm (Clover field, 40 m, 9.6.1987, 2♂♂); Hacumur (Crop field, 50 m, 13.6.1987, 2♀♀ 4♂♂); Pasture, 27.8.1991, 6♀♀ 4♂♂); Yenikadm (Willow grove, 50m, 13.6.1987, 3♂♂); Büyükdöllük (Crop field, 50m, 20.6.1987, 4♂♂; Pasture, 11.8.1991, 1♀); Yolüstü Köyü (Crop field, 50m, 20.6.1987, 2♂♂); Süleoğlu (Crop field, 175m, 28.5.1988, 1♀); Lalapaşa-Vaysal (Oak forest, 400m, 4.6.1998, 1♂); Binevler (Pasture, 41m, 9.6.

1991, 1 ♀); Karaağaç (Pasture, 41m, 26.7.1992, 3 ♀♀ 4 ♂♂); Meriç-Hasirciarnavut (Clover field, 105m, 30.7.1992, 1 ♂; Pasture, 21.6.1993, 1 ♂); Uzunköprü-Saçlımüsellim (Clover field, 70m, 1.8.1992, 1 ♀); Havsa-Abalar (Pasture, 45m, 1.8.1992, 1 ♀ 1 ♂); Havsa-Çukurköy (Meadow, 30m, 19.6.1993, 3 ♂♂); Keşan-Karahisar (Pasture, 180m, 5.8.1993, 1 ♂); Suakacağı (Oak forest, 210m, 5.7.1997, 1 ♂); Güllapoğlu Yerleşkesi (Stream bank, 41m, 16.9.1999, 1 ♀); İpsala (Pasture, 70m, 5.8.1993, 10 ♀♀; Clover field, 27.7.2000, 1 ♂); Lalapaşa-Vaysal-Ömeroba arası (Oak forest, 560m, 2.8.2000, 1 ♀ 1 ♂); Keşan-Korudağı (Pine forest, 350m, 7.6.2001, 1 ♂); Enez-Hasköy (Poplar wood, 80m, 2.8.2001, 6 ♀♀); Değirmenyeni (River bank, 36m, 1.9.2001, 2 ♀♀); Lalapaşa-Doğanköy (Mixed forest, 370m, 1.9.2001, 1 ♂); İstanbul-Sarıyer-Bilezikçi Çiftliği (Mixed forest, 30m, 24.6.1993, 1 ♀ 1 ♂; 14.6.2001, 1 ♀); Çatalca-Durusu (Pasture, 110m, 14.6.2001, 1 ♀); Gaziosmanpaşa-Boğazköy (Oak forest, 60m, 15.6.2001, 1 ♀); Sarıyer-Kısırmandıra (Meadow, 70m, 25.6.1993, 2 ♀♀ 1 ♂); Çatalca-Oklalı (Pasture, 60m, 14.6.2001, 2 ♂♂); Çatalca-Kızılcaali (Poplar wood, 50m, 14.6.2001, 5 ♀♀ 1 ♂); Silivri-Büyükkılıçlı (Clover field, 150m, 15.6.2001, 3 ♀♀ 3 ♂♂); İzmit-Uzuntarla (Pine wood, 100m, 7.7.1993, 1 ♂); Kırklareli-Erenler (Crop field, 200m, 16.6.1987, 4 ♂♂); Pınarhisar-Poyralı (Pasture, 310m, 16.6.1987, 1 ♂); Demirköy (Mixed forest, 390m, 16.6.1987, 2 ♂♂; 1.9.1988, 2 ♀♀); Yeniceköy-Demirköy arası (Pasture, 660m, 16.6.1987, 1 ♀); Demirköy-İğneada (Mixed forest, 10m, 17.6.1987, 1 ♂; 3.6.1993, 1 ♀); Çukurpınar (Oak forest, 500m, 1.9.1988, 2 ♀♀; 4.6.1993, 1 ♂); Pınarhisar-Yeniceköy (Stream bank, 700m, 6.9.1988, 2 ♀♀); Kaynarca (Pasture, 125m, 6.9.1988, 1 ♂); Demirköy-Balaban (Mixed forest, 300m, 6.7.1997, 1 ♀); Lüleburgaz-Celaliye (Pasture, 50m, 22.6.1993, 5 ♀♀); Vize-Pazarlı (Pine wood, 150m, 24.7.2000, 1 ♀); Lüleburgaz-Ceylanköy (Pasture, 60m, 24.7.2000, 6 ♀♀); Kofçaz-Erikler (Pasture, 430m, 2.8.2000, 14 ♀♀); İnce-Paşayeri (Mixed forest, 150m, 2.8.2000, 3 ♀♀); Vize-Kömürköy-Kıyıköy arası (Mixed forest, 15m, 16.6.2001, 3 ♀♀ 4 ♂♂); Kofçaz-Ahmetler (Oak forest, 570m, 17.7.2001, 12 ♀♀ 4 ♂♂); Kofçaz-Beyci (Clover field, 590m, 17.7.2001; 11 ♀♀ 1 ♂); Çağlayık (Stream bank, 620m, 17.7.2001, 10 ♀♀); Dereköy (Stream bank, 400m, 17.7.2001, 5 ♀♀ 1 ♂); Babaeski-Kuleli (Clover field, 55m, 18.7.2001, 2 ♀♀); Lüleburgaz-Çengelli (Stream bank, 60m, 18.7.2001, 2 ♀♀); Lüleburgaz-Emirali (Stream bank, 60m, 18.7.2001, 1 ♀); Lüleburgaz-Evrensekiz (Stream bank, 65m, 18.7.2001, 9 ♀♀); Lüleburgaz-Karaağaç (Poplar wood, 60m, 18.7.2001, 7 ♀♀); Tekirdağ-Işıklar (Pasture, 110m, 7.8.1991, 1 ♀); Hayrabolu (Willow grove, 50m, 26.8.1992, 1 ♂); Hayrabolu-Susuzmüsellim (Crop field, 110m, 3.8.1993, 3 ♀♀); Çorlu-Marmara Ereğlisi (Moor, 10m, 12.8.1993, 1 ♂); Muratlı (Poplar wood, 54m, 7.9.1999, 2 ♀♀; 9.6.2001, 1 ♂); Uçmakdere (Orchard, 300m, 8.9.1999, 1 ♀); Hayrabolu-Lahana (Clover field, 70m, 27.7.2000, 2 ♀♀); Naipköy (Pasture, 30m, 23.10.2001, 1 ♀); Saray (Oak forest, 150m, 16.6.2001, 2 ♀♀, 4 ♂♂); Banarlı (Orchard, 100m, 3.6.2001, 2 ♀♀ 1 ♂); Yalova-Safran (Stream bank, 70m, 11.8.2001, 3 ♂♂). - The first record from Turkey was published by BEYARSLAN et al. (2001). The data are new records for the Marmara Region.

General Distribution: Albania, Austria, Belgium, Bulgaria, Cyprus, Denmark, England, Finland, France, Germany, Greece, Holland, Hungary, Ireland, Italy, Japan, Mexico, North Africa, Norway, former Czechoslovakia, Poland, Romania, Russia (European parts), Scotland, Spain, Sweden, Switzerland, USA (ACHTERBERG 1988), Turkey (BEYARSLAN et al. 2002), Tunisia (PAPP 1981), former Yugoslavia (BRAJKOVIC 1988). - The species has a wide distribution in the world and is determined as diurnal and nocturnal.

The determined specimens show differences in color, sculpture and the number of antennal segments. The species was found in all different habitats in the research area.

Subgenus *Hysterobolus* VIERECK, 1913

Blacus (Hysterobolus) nixonii HAESELBARTH, 1973

Blacus nixonii HAESELBARTH, 1973, Veröff. zool. St.-Samml. Münch. 16: 114-115.

Blacus (Ganychorus) nixonii: VAN ACHTERBERG 1976: 211.

Blacus (Hysterobolus) nixonii: VAN ACHTERBERG 1988: 130.

Material examined: Balıkesir-Edremit (Pasture, 15m, 22.7.2001, 1 ♀); Tekirdağ-Naipköy (Pasture, 30m, 7.9.2002, 1 ♂). - **New record for Turkey!**

General Distribution: Bulgaria, Cyprus, Holland, Portugal (ACHERBERG 1988), Korea (PAPP 1989).

Discussion

The majority of the 13 species described in this study are distributed in the Palearctic region. The species mentioned above can be divided into following groups according to their zoogeographical distributions.

Holarctic: *Blacus (B.) exilis*, *Blacus (G.) armatulus*, *Blacus (G.) ruficornis*.

Palearctic: *Blacus (B.) interstitialis*, *Blacus (G.) diversicornis*, *Blacus (H.) nixonii*.

Seven species are Euro-Siberian. Several of them are distributed in Europe and Asia Minor and some of them in the Caucasus: *Blacus (B.) errans*, *Blacus (B.) hastatus*, *Blacus (B.) leptostigma*, *Blacus (B.) nigricornis*, *Blacus (B.) rufescens*, *Blacus (B.) stelfoxi*, *Blacus (G.) maculipes*.

Recent zoogeographic composition and structure of Anatolia and Thrace are recognised as a part of the Palearctic Region. It seems that *Blacus* species recorded from Turkey up to now are of Palearctic distribution, which also agrees with the situation mentioned above. Species we determined mostly show a European distribution. For the European species determined from Asia Minor the distribution now includes also Asia.

Literatur

- ACHERBERG, C. van. 1976: A revision of the Tribus Blacini (Hym., Braconidae, Helconinae). - Tijdschr. Ent. 118: 159-322.
- ACHERBERG, C. van. 1988: Revision of the subfamily Blacinae FOERSTER (Hymenoptera, Braconidae). - Zoologische Verhandlungen. 249: 324 pp.
- ACHERBERG, C. van & GUERRERO, E.R. 2000: A new species of the genus *Blacus* NEES (Hymenoptera: Braconidae: Blacinae) from Canary Islands. - Zool. Med. Leiden 73 (32): 487-490.
- BEYARSLAN, A., İNANC, F., ÇETİN, Ö. & AYDOĞDU, F. 2002: Braconidae Species of Turkish Aegean Region. - International Symposium: Parasitic Hymenoptera; Taxonomy and Biological Control, 14.-17. May 2001, Köszeg-Hungary, pp.285-290.
- BRAJKOVIC, M.M. 1988: Knowledge of the Braconidae (Hymenoptera) fauna in Yugoslavia. - Bulletin of Natural History Museum in Belgrade, B 43/44: 127-128.
- HAESELBARTH, E. 1973: Die *Blacus*-Arten Europas und Zentral-Asiens (Hymenoptera, Braconidae). - Veröff. Zool. Staatssomml. München 16: 69-170.
- HAESELBARTH, E. 1975a: Faunistische und taxonomische Notizen zu europäischen *Blacus*-

- Arten (Hymenoptera, Braconidae). - Nachrichtenblatt der Bayerischen Entomologen 24 (2): 28-31.
- HAESSELBARTH, E. 1975b: Ergebnisse der Albanien-Expedition 1961 des Deutschen Entomologischen Institutes 90. Beitrag (Hymenoptera: Braconidae I (Genera *Blacus* NEES, *Ecclitura* KOKUJEV und *Perilitus* NEES). - Beitr. Ent. Berlin 25 (1): 49-51.
- HAESSELBARTH, E. 1992: *Blacus (Ganychorus) madli* sp.n., eine neue Braconide aus der Türkei (Insecta, Hymenoptera, Braconidae). - Nachrichtenblatt der Bayerischen Entomologen 41 (3): 95-98.
- KOPONEN, M. 1992: Contributions to the knowledge of the Braconidae of Finland (Hymenoptera). -Entomologica Fennica 2: 193-209.
- PAPP, J. 1981: Braconidae (Hymenoptera) from Tunisia, 2. - Folia Entomologica Hungarica Rovartani Közlemenyek XLII (XXXIV) 1: 155-162.
- PAPP, J. 1985: Braconidae (Hymenoptera) from Korea, VII. - Acta Zoologica Hungarica 31 (4): 341-365.
- PAPP, J. 1989: Braconidae (Hymenoptera) from Korea, X. - Acta Zoologica Hungarica. 35 (1-2): 81-103.
- PAPP, J. 1999: The braconid wasps (Hym: Braconidae) of the Aggtelek National Park (NE Hungary). -The fauna of the Aggtelek National Park II: 547-572.
- SHAW, M.R. & HUDDLESTON, T. 1991: Classification and Biology of Braconid Wasps. - Handbooks for the Identification of British Insects, Vol. 7, Part 11: 54.
- TOBIAS, V.I. 1986: Bestimmungsbuch der Insekten des Europäischen Teils der USSR. - Band III: Hymenoptera IV. Teil. - Nauka, Leningrad, 317 pp., [358-387] (russian).
- TOBIAS, V.I., CAPEK, M. & LAUTERER, P. 1998: Braconidae (Hymenoptera) from Afghanistan in the collections of the Moravian Museum. - Acta Mus. Moraviae, Sci. biol. 82 (1997): 173-190.
- ZETTEL, H. 1991: Eine Unbekannte Art Der *Blacus exilis*-Gruppe Aus Österreich (Hymenoptera: Braconidae). - Linzer biol. Beitr. 23 (2): 521-524.

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