



Entomofauna

ZEITSCHRIFT FÜR ENTOMOLOGIE

Band 36, Heft 10: 121-176

ISSN 0250-4413

Ansfelden, 2. Januar 2015

An annotated catalogue of the Iranian Braconinae (Hymenoptera: Braconidae)

Neveen S. GADALLAH & Hassan GHAHARI

Abstract

The present work comprises a comprehensive faunistic catalogue of the Braconinae collected and recorded from the different localities of Iran over the past fifty years. It includes 115 species and subspecies in 11 genera (*Atanycolus* FÖRSTER, *Baryproctus* ASHMEAD, *Bracon* FABRICIUS, *Coeloides* WESMAEL, *Glyptomorpha* HOLMGREN, *Habrobracon* ASHMEAD, *Iphiaulax* FOERSTER, *Megalommum* SZÉPLIGETI, *Pseudovipio* SZÉPLIGETI, *Rhadinobracon* SZÉPLIGETI and *Vipio* LATREILLE) and four tribes (Aphrastobraconini, Braconini, Coeloidini, Glyptomorphini). Synonymies, distribution and host data are given.

Key words: Hymenoptera, Braconidae, Braconinae, catalogue, Iran.

Zusammenfassung

Vorliegende Arbeit behandelt einen flächendeckenden faunistischen Katalog der Braconidae des Irans im Beobachtungszeitraum der letzten fünfzig Jahre. Es gelang der Nachweis von 115 Arten und Unterarten aus den 11 Gattungen *Atanycolus* FÖRSTER, *Baryproctus* ASHMEAD, *Bracon* FABRICIUS, *Coeloides* WESMAEL, *Glyptomorpha*

HOLMGREN, *Habrobracon* ASHMEAD, *Iphiaulax* FOERSTER, *Megalommm* SZÉPLIGETI, *Pseudovipio* SZÉPLIGETI, *Rhadinobracon* SZÉPLIGETI und *Vipio* LATREILLE. Angaben zur Synonymie und Verbreitung sowie zu Wirtsarten werden angeführt.

Introduction

Braconinae is a large subfamily of cyclostomes group of parasitic wasps in the family Braconidae (Hymenoptera: Ichneumonoidea). They constitute more than 2900 described species that are mostly tropical and subtropical (YU et al. 2012). Members of this subfamily are often black, red, orange and/or white in colours. They are small to medium-sized insects, characterized by their concave labrum, absence of epicnemial carina, absence of occipital carina, females have extended ovipositor (SHARKEY 1993).

Most of the members of Braconinae are idiobiont ectoparasitoids of concealed larvae of xylophagous and stem-boring moth caterpillars or beetle larvae. Several species are known to parasitize concealed fly and sawfly larvae. Several genera are found to be gregarious endoparasitoids of *Lepidoptera pupae* (VAN ACHTERBERG 1984). Accordingly, they represent a large and powerful biological weapon (e.g. BAIRD 1958; LEWIS et al. 1990) against various pests from holometabolous insect orders (Coleoptera, Diptera, Hymenoptera, Lepidoptera).

No particular studies were conducted on the Braconinae of Iran. In most cases the Braconinae records were partly included among studies concerned with the whole family Braconidae. Examples are those of HEDWIG (1957), FISCHER (1972), MODARRES AWAL (1997), SHOJAI (1998), PAPP (1999c), DEZIANIAN & JALALI (2004), GHARALI (2004), KARAMPOUR & FASIHI (2004), KHANJANI (2004, 2006), GHAHARI et al. (2009a-c, 2010a, b, 2011 a-d, 2012a, b), GHAHARI & FISCHER (2011a-c, 2012), KISHANI FARAHANI et al. (2008, 2010), LASHKARI BOD et al. (2010, 2011), VAN ACHTERBERG & MEHRNEJAD (2011), SAKENIN et al. (2011), NADERIAN et al. (2012), RASTEGAR et al. (2012), SAMIN et al. (2012), SOBHANI et al. (2012). Additionally, FALLAHZADEH & SAGHAEI (2010) listed 33 species of Iranian Braconinae from 7 genera, *Baryproctus* (1 species), *Bracon* (16 species), *Glyptomorpha* (1 species), *Iphiaulax* (5 species), *Pseudovipio* (4 species), *Rhadinobracon* (2 species), and *Vipio* (4 species).

Species of this large subfamily represent very important parasitoids for a large number of host species belonging to different insect orders. So they are considered as powerful biocontrol agents in many Iranian provinces as well as different parts of the world. The aim of this work is catalogue of all the published data on Iranian Braconinae for providing an impressive list on this taxon.

Materials and Methods

The published data on the subfamily Braconinae from Iran are summarized. These data are based on the published works as well as the collected specimens over the past 50 years. Classification of different taxa follows YU et al. (2012), and in other situations the related references are given. Names of valid genera are listed alphabetically within tribes, and valid species names are listed alphabetically within genera. The following data are

included: the valid taxa names, Iranian localities (published records with provincial distribution (see Fig. 1)), or when this information is not available - "Iran (no locality cited)" is given), worldwide distribution and host records.

Results

In total 115 species and subspecies in eleven genera and four tribes (Aphrastobraconini, Braconini, Coeloidini and Glyptomorphini) are listed as the fauna of Iranian Braconinae. A comprehensive checklist of species is given comprising the valid names of studied or recorded taxa, Iranian localities, worldwide distribution and host records.

Family **B r a c o n i d a e** NEES 1811

Subfamily **B r a c o n i n a e** NEES von ESENBECK 1811

Tribe **A p h r a s t o b r a c o n i n i** ASHMEAD 1900

Genus **I p h i a u l a x** FOERSTER 1862

Iphiaulax hians PÉREZ 1907

Distribution in Iran: Iran (no locality cited) (TELENGA 1936; FALLAHZADEH & SAGHAEI 2010; YU et al. 2012).

Distribution outside Iran: Oman (PÉREZ 1907; YU et al. 2012).

Iphiaulax impeditor (KOKUJEV 1898)

Distribution in Iran: Iran (no locality cited) (FAHRINGER 1926; FALLAHZADEH & SAGHAEI 2010; YU et al. 2012).

Distribution outside Iran: Azerbaijan, China, Georgia, Lithuania, Moldova, Russia, Slovakia, Turkey (YU et al. 2012), Caucasus, Central Asia, Siberia (TOBIAS 1986), Czech Republic, Kazakhstan, Slovakia (TOBIAS 1986; YU et al. 2012), Hungary (Carpathian Basin) (PAPP 1960), Turkestan (SZÉPLIGETI 1904).

Iphiaulax impostor SCOPOLI 1763

Distribution in Iran: East Azarbaijan (GHAHARI et al. 2009a), Guilan (SAKENIN et al. 2008), Iran (no locality cited) (YU et al. 2012).

Distribution outside Iran: Entirely Palearctic (TOBIAS 1986; FALCÓ et al. 1993) and Europe (MAIDL 1923), and Afrotropical species (FALCÓ et al. 1993). Albania, Algeria, Armenia, Azerbaijan, Bulgaria, China, Croatia, Cyprus, Czech Republic, Estonia, Finland, France, Georgia, Germany, Greece, Israel, Italy Japan, Kazakhstan, Korea, Latvia, Lithuania, Macedonia, Mongolia, Montenegro, Morocco, Poland, Portugal, Romania, Russia, Slovakia, Sudan, Sweden, Switzerland, Tajikistan, Turkey, Ukraine, United Kingdom, former Yugoslavia (YU et al. 2012), Hungary (PAPP 2008; YU et al. 2012), Serbia (ŽIKIĆ et al. 2013), Spain (MEDINA 1895; DOCAVO 1964; FALCÓ et al. 1993; YU et al. 2012), Turkmenistan (SZÉPLIGETI 1904; YU et al. 2012).

Comments: It was reported as a principal parasitoid of Buprestidae and Cermabycidae (Coleoptera), Cossidae and Lasiocampidae (Lepidoptera) (FALCÓ et al. 1993). This species was also reported as a larval parasitoid of *Saperda punctata* (L.) (Coleoptera: Cerambycidae) (SAKENIN et al. 2008), as well as *Monachus galloprovinciana* (OLIVIER) (Coleoptera: Cerambycidae) (PETERSEN-SILVA et al. 2012). It was also reported as a parasitoid of cerambycid beetles: *Rhagium inquisitor* L., *Monochamus sutor* L., *Saperda populnea* L., *Acanthocinus aedilis* L., *Oberea linearis* L., *Apriona germari* HOPE, *Icosium tomentosum* LUCAS, *Leiopus nebulosus* L. (Coleoptera: Cerambycidae), metallic woodborers *Anthaxia mono* FABRICIUS (Coleoptera: Buprestidae), *Carpenter moth*, *Zeuzera leuconotum* (ZEUZEL) (Lepidoptera: Cossidae) (TOBIAS 1986). It was also found to parasitize long horned beetles *Aegomorphus clavipes* and *Leiopus nebulosus* (Coleoptera: Cerambycidae) (STANKOVIĆ et al. 2010). In Turkey, *Chlophorus varius damascenus* (CHEVROLAT) (Coleoptera: Cerambycidae) was reported as a new host record for *I. Impositor* (BOLU et al. 2010).

***Iphiaulax mactator* (KLUG 1817)**

Distribution in Iran: Iran (no locality cited) (TOBIAS 1976, 1986; FALLAHZADEH & SAGHAEI 2010; YU et al. 2012).

Distribution outside Iran: Widely distributed in Europe (FALCÓ et al. 1993). Azerbaijan, Czech Republic, Germany, Poland, Ukraine (PAPP 1960; YU et al. 2012), Bosnia Hercegovina, China, Greece, Italy, Romania, Serbia, Slovakia, former Yugoslavia (YU et al. 2012), Caucasus, southern and central Europe (TOBIAS 1986), Croatia, Russia, Syria (SZÉPLIGETI 1904; YU et al. 2012), Hungary (SZÉPLIGETI 1904; PAPP 1960, 2008; YU et al. 2012), Kazakhstan (PAPP 1960; TOBIAS 1986; YU et al. 2012), Mongolia (TOBIAS 1986; YU et al. 2012), Siberia (PAPP 1960), Spain (FAHRINGER 1928; DOCAVO 1964; FALCÓ et al. 1993; YU et al. 2012), Turkey (BEYARSLAN & ÇETIN ERDOĞAN 2012).

Comments: This species was reported as a parasitoid of cerambycid beetle *Acanthocinus aedilis* (L.) (Coleoptera: Cerambycidae) (TOBIAS 1986; FALCÓ et al. 1993).

***Iphiaulax mirabilis* (HEDWIG 1957)**

Distribution in Iran: SISTAN & BALUCHESTAN (HEDWIG 1957; FALLAHZADEH & SAGHAEI 2010).

Distribution outside Iran: Endemic to Iran (HEDWIG 1957 as *Rhytimorpha mirabilis* HEDWIG; YU et al. 2012).

***Iphiaulax perezii* (FAHRINGER 1926)**

Distribution in Iran: Iran (no locality cited) (TELENGA 1936; FALLAHZADEH & SAGHAEI 2010; YU et al. 2012).

Distribution outside Iran: Oman (PÉREZ 1907 as *Iphiaulax variipennis* PÉREZ; YU et al. 2012).

Genus *Megalommum* SZÉPLIGETI 1900

***Megalommum pistacivorae* VAN ACHTERBERG & MEHRNEJAD 2011**

Distribution in Iran: Kerman (VAN ACHTERBERG & MEHRNEJAD 2011).

Distribution outside Iran: Endemic to Iran (VAN ACHTERBERG & MEHRNEJAD 2011).

Comments: Solitary and possibly endoparasitoid of *Calchaenesthes pistacivora* HOLZSCHUH (Coleoptera: Cerambycidae) (VAN ACHTERBERG & MEHRNEJAD 2011).

Tribe Braconini NEES 1811

Genus *Atanycolus* FÖRSTER 1862

***Atanycolus ivanowi* (KOKUJEV 1898)**

Distribution in Iran: Alborz, Guilan, Qazvin (ZARGAR et al. 2014 as *A. ivanovi*), Fars (LASHKARI BOD et al. 2011 as *A. sculpturatus* THOMSON, in apple orchard), Golestan (GHAHARI & FISCHER 2011c), Ilam (GHAHARI et al. 2011d as *A. sculpturatus*), Kordestan, Marzaki, Semnan, Tehran (MODARRES AWAL 1997 as *A. sculpturatus*), Tehran (MODARRES AWAL 1997 as *A. sculpturatus*; ZARGAR et al. 2014), Iran (no locality cited) (SHESTAKOV 1926).

Distribution outside Iran: Armenia, Austria, Azerbaijan, Finland, France, Germany, Greece, Japan, Kazakhstan, Switzerland, Tajikistan, Turkmenistan, Uzbekistan, former Yugoslavia (YU et al. 2012), Caucasus (TOBIAS 1986), Central Asia (SZÉPLIGETI 1904; TOBIAS 1986), China (WANG et al. 2009 as *A. sculpturatus*; YU et al. 2012), Czech Republic, Slovakia, Ukraine (PAPP 1960 as *A. sculpturatus*; YU et al. 2012), Croatia (SZÉPLIGETI 1901 as *A. signatus* SZÉPLIGETI; YU et al. 2012), Hungary (SZÉPLIGETI 1901 as *A. signatus*; PAPP 1960 as *A. sculpturatus*; YU et al. 2012), Italy (CAMPADDELLI & SCARAMOZZINO 1994; YU et al. 2012), Portugal (PETER-SILVA et al. 2012), Russia (SZÉPLIGETI 1904; YU et al. 2012), Serbia (BELOKOBYLSKIJ & ŽIKIĆ 2009 as *A. sculpturatus*), Siberia, *Europe meridionalis* (SZÉPLIGETI 1904 as *A. sculpturatus*), Turkey (BOLU et al. 2009; BEYARSLAN & ÇETIN ERDOĞAN 2012; YU et al. 2012).

Comments: This species was reported as a parasitoid of Sphenoptera (Tropaeopeltis) tappesi MARSEUL (Coleoptera: Buprestidae) on peach tree (BOLU et al. 2009; GHAHARI & FISCHER 2011c). It was also reported as larval parasitoid of *Osphranteria coerulescens inaurata* HOLZSCHUH (Coleoptera: Cerambycidae) (BOLU et al. 2009). PETER-SILVA et al. (2012) reported this species as ectoparasitoid of the first larval stages of *Monochamus galloprovincianus* (OLIVIER) (Coleoptera: Cerambycidae) living under the bark of *Pine pinaster* in Portugal. A number of cerambycid species were reported by YU et al. (2012) as hosts for *A. ivanowi*: *Anthaxia aurulenta* (FABRICIUS), *A. deaurata* (GMELIN), *Chrysobethris solieri* (LAPORTE & GORY), *Ovalisia mirifica* (MULSAUT), *Melanophila picta decastigma* (FABRICIUS), *Sphenoptera tappesi* MARSEUL, *Arhopalus syriacus* (REITTER), *Stictoleptura rubra* (L.), *Monochamus galloprovincialis* (OLIVIER), *Tetropium fuscum* (FABRICIUS), *T. gabrieli* WEISE (Coleoptera: Cerambycidae) (BOLU et al. 2009; YU et al. 2012). It was also reported as a parasitoid of *Oilampra mirifica* MULSAUT, *Melanophila picta* (PALLAS), *M. decastigma* OBENBERGER (Coleoptera: Buprestidae). It was also reported on *Reguloscolytus mediterraneus* EGGERS and *Leptura rubra* (L.) (Coleoptera: Cerambycidae) (SHENEFELT 1978).

Genus *Baryproctus* ASHMEAD 1900

***Baryproctus zarudnianus* TELENGA 1936**

Distribution in Iran: Iran (no locality cited) (TELENGA 1936;

SHENEFELT 1978; FALLAHZADEH & SAGHAEI 2010; YU et al. 2012).

Distribution outside Iran: Israel (PAPP 1970; YU et al. 2012).

Genus *Bracon* FABRICIUS 1804

***Bracon (Asiabracon) quadrimaculatus* TELENGA 1936**

Distribution in Iran: Hormozgan (AMERI et al. 2014).

Distribution outside Iran: Afghanistan (YU et al. 2012), Azerbaijan (TOBIAS 1986; YU et al. 2012), Greece (PAPP 2007; YU et al. 2012), Israel (PAPP 2011-2012), Turkey (BEYARSLAN 1988 as *B. amaculatus*; BEYARSLAN et al. 2010 as *B. amaculatus*; BEYARSLAN et al. 2014; YU et al. 2012), Turkmenia (TELENGA 1936; YU et al. 2012).

***Bracon (Bracon) chivensis* TELENGA 1936**

Distribution in Iran: Iran (no locality cited) (CAPEK & HOFMANN 1997; FALLAHZADEH & SAGHAEI 2010; YU et al. 2012).

Distribution outside Iran: Hungary, Turkmenistan, Uzbekistan (PAPP 1968; YU et al. 2012).

***Bracon (Bracon) fulvipes* NEES 1834**

Distribution in Iran: East Azarbaijan (GHAHARI et al. 2009a), Guilan (GHAHARI & FISCHER 2011b), Mazandaran (GHAHARI et al. 2010a), Iran (no locality cited) (PAPP 2012 as *B. fulvipes* var. *carinatus*).

Distribution outside Iran: One of the most common *Bracon* species in the Palearctic Region (PAPP 1968; TOBIAS 1995), and Central Europe (PAPP 1968 as *B. (B.) mixtus*). Albania, Korea (SZÉPLIGETI 1901 as *B. mixtus* SZÉPLIGETI), Algeria, Bohemia, Bulgaria, Denmark, Georgia, Macedonia, Slovakia, Tunisia (PAPP 2012), Austria (SZÉPLIGETI 1901 as *B. fallaciosus* SZÉPLIGETI, and *B. mixtus* SZÉPLIGETI; SHENEFELT 1978; TOBIAS 1995; YU et al. 2012), Belgium (WESMAEL 1838; SZÉPLIGETI 1904; YU et al. 2012), Caucasus, Central Asia, Far East, Finland, France, Kazakhstan, Mongolia, Spain (SHENEFELT 1978; TOBIAS 1995; YU et al. 2012), Croatia (SZÉPLIGETI 1901 as *B. dubiosus* SZÉPLIGETI, *B. fallaciosus*, and *B. mixtus*), European USSR (PAPP 1968 as *B. bisinuatus*), Germany (SZÉPLIGETI 1904; SHENEFELT 1978; TOBIAS 1995; YU et al. 2012; PAPP 2012), Greece (SZÉPLIGETI 1901 as *B. carinatus* SZÉPLIGETI; SHENEFELT 1978; TOBIAS 1995; YU et al. 2012), Hungary (MAIDL 1923 as *B. mixtus*; SZÉPLIGETI 1901 as *B. bisinuatus* SZÉPLIGETI, *B. carinatus*, *B. dubiosus*, and *B. elegans* SZÉPLIGETI; SZÉPLIGETI 1904; PAPP 1968 as *B. bisinuatus*); YU et al. 2012; PAPP 2008, 2012), Iberian Peninsula (FALCÓ et al. 1993), Italy (SZÉPLIGETI 1901 as *B. mixtus* SZÉPLIGETI; SHENEFELT 1978; TOBIAS 1995; YU et al. 2012; PAPP 2012), the Netherlands, Poland, Spain (SHENEFELT 1978; FALCÓ et al. 1993; TOBIAS 1995; YU et al. 2012; PAPP 2012), Norway (DALLA-TORRE 1898 as *B. universalis* DALLA TORRE), Romania (SZÉPLIGETI 1901 as *B. bisinuatus* SZÉPLIGETI, and *B. fallaciosus*; EBNER 1930 as *Striobracon mixtus* EBNER; PAPP 2012), Russia (SZÉPLIGETI 1901 as *B. bisinuatus* SZÉPLIGETI; TELENGA 1936 as *Bracon kiritshenkoi* TELENGA; YU et al. 2012; PAPP 2012), Serbia (ŽIKIĆ et al. 2012, 2013; PAPP 2012), Slovenia (THOMSON 1892 as *B. lativentris* THOMSON; SZÉPLIGETI 1901 as *B. fallaciosus* SZÉPLIGETI, and *B. mixtus* SZÉPLIGETI), Sweden (THOMSON 1892 as *B. lativentris* THOMSON; DALLA-TORRE 1898

as *B. universalis* DALLA TORRE; SHENEFELT 1978; TOBIAS 1995; YU et al. 2012; PAPP 2012), Switzerland (SZÉPLIGETI 1901 as *B. fallaciosus* SZÉPLIGETI, and *B. mundus* SZÉPLIGETI; SZÉPLIGETI 1904; PAPP 2012), Turkey (BEYARSLAN et al. 2005, 2010, 2014; GÜGLER & ÇAGATAY 2007; BEYARSLAN & ÇETIN ERDOĞAN 2012; YU et al. 2012; PAPP 2012), UK (SZÉPLIGETI 1904; SHENEFELT 1978; TOBIAS 1995; PAPP 2012; BROAD et al. 2011; YU et al. 2012), Ukraine (SZÉPLIGETI 1901 as *B. fallaciosus* SZÉPLIGETI; GREESE 1928 as *B. sylvanus* GREESE; PAPP 2012), former Yugoslavia (THOMSON 1892 as *B. lativentris* THOMSON; SZÉPLIGETI 1901 as *B. carinatus* SZÉPLIGETI; SHENEFELT 1978; TOBIAS 1995; YU et al. 2012).

Comments: This species was reported as parasitoid of a large number of pest species belonging to the families Curculionidae (Coleoptera), Cynipidae and Eurytomidae (Hymenoptera), Coleophoridae and Sesiidae (Lepidoptera), Lauxaniidae (Diptera) (FALCÓ et al. 1993). It was reported as a parasitoid of *Mononychus punctumalbum* (HERBST) (Coleoptera: Curculionidae), *Paranthrene tabaniformis* (ROTTEMBERG) (Lepidoptera: Sesiidae), *Coleophora colonellae* (Lepidoptera: Coleophoridae), *Tetramesa hyalipennis* WALKER, *T. brevicornis* WALKER (Hymenoptera: Eurytomidae) (BEYARSLAN et al. 2005). It was also reported as the parasite of beetles *Mononychus punctum-album* (HERBST), *Curculio villosus* FABRICIUS, *Apion cyanescens* GYLLENHAL, *A. minimum* HERBST (Coleoptera: Curculionidae), *Paranthrene tabaniformis* (ROTTEMBERG) (Lepidoptera: Sesiidae), *Coleophora coronillae* ZELLER (Lepidoptera: Coleophoridae), *Tetramesa hyalipennis* WALKER, *T. brevicollis* WALKER (Hymenoptera: Eurytomidae) (TOBIAS 1986).

***Bracon (Bracon) gusaricus* TELENGA 1936**

Distribution in Iran: Hormozgan (AMERI et al. 2014), Lorestan (GHAHARI et al. 2012b).

Distribution outside Iran: Afghanistan (TOBIAS et al. 1998; YU et al. 2012), Azerbaijan, Israel, Russia, Switzerland, Turkmenistan, Uzbekistan (PAPP 2011-2012; YU et al. 2012), Bulgaria, Central Asia (TOBIAS 1986; YU et al. 2012), Georgia (TELENGA 1936 as *B. pulcherrimus* TELENGA; PAPP 2011-2012; YU et al. 2012), Turkey (BEYARSLAN et al. 2005, 2010, 2014; BEYARSLAN & ÇETIN ERDOĞAN 2012; PAPP 2011-2012; YU et al. 2012).

***Bracon (Bracon) intercessor* (NEES VON ESENBECK 1834)**

Distribution in Iran: Hormozgan (AMERI et al. 2014), Khorasan (GHAHARI et al. 2009c), Lorestan (GHAHARI et al. 2012b), Semnan (NADERIAN et al. 2012), Tehran (GHAHARI et al. 2011a; ABBASIPOUR et al. 2012).

Distribution outside Iran: One of the most frequent *Bracon* species in the Palearctic Region (TOBIAS 1986; 1995), Central Asia (PAPP 1968), and Europe (PAPP 1968; FALCÓ et al. 1993). Afghanistan, Azerbaijan, Canary Islands, Latvia, Macedonia, Moldova, the Netherlands, Romania, Tajikistan, former Yugoslavia (YU et al. 2012), Albania (SZÉPLIGETI 1901 as *B. mixta* SZÉPLIGETI; YU et al. 2012), Austria (SZÉPLIGETI 1901 as *B. rufiscapus* SZÉPLIGETI and *B. mixta* SZÉPLIGETI; PAPP 1968; SHENEFELT 1978; YU et al. 2012), Bosnia Herzegovina, China, Uzbekistan (PAPP 2012), Bulgaria (GEORGIEV 2005; YU et al. 2012; PAPP 2012), Caucasia, Kazakhstan, Lithuania, Poland (PAPP 1968; SHENEFELT 1978; YU et al. 2012), Croatia (SZÉPLIGETI 1901 as *B. subtilis* SZÉPLIGETI and *B. mixta*; PAPP 2009b; YU et al. 2012; PAPP 2012), Cyprus

(SZÉPLIGETI 1901 as *B. subtilis*; PAPP 2012), Czech Republic (LOZAN et al. 2010), France, Spain (SZÉPLIGETI 1901 as *B. suspectus* SZÉPLIGETI; PAPP 1968; SHENEFELT 1978; FALCÓ et al. 1993; YU et al. 2012; PAPP 2012), Georgia (SZÉPLIGETI 1901 as *B. suspectus*; TELENGA 1933 as *B. kachetinus* TELENGA; PAPP 2012), Germany (SZÉPLIGETI 1904; PAPP 1968; SHENEFELT 1978; YU et al. 2012), Greece (PAPP 2007; YU et al. 2012; PAPP 2012), Greece-Crete (LOZAN 2004), Hungary (SZÉPLIGETI 1901 as *B. nigropictus* SZÉPLIGETI, *B. nitidiusculus* SZÉPLIGETI and *B. mundus* SZÉPLIGETI; SZÉPLIGETI 1904 as *B. subtilis*, *B. nitidiusculus*, *B. rufiscapus* and *B. suspectus*; PAPP 1968; SHENEFELT 1978; YU et al. 2012; PAPP 2008, 2012), Israel, Romania (YU et al. 2012; PAPP 2012), Italy (SZÉPLIGETI 1901 as *B. mixta* and *B. subtilis*; SZÉPLIGETI 1904; PAPP 1968; SHENEFELT 1978; PAPP 2012), Korea (SZÉPLIGETI 1901 as *B. subtilis*, *B. mixta* and *B. rufiscapus*; PAPP 2012), Mongolia (TELENGA 1936 as *B. maslovskii* DALLA TORRE; PAPP 2009a; YU et al. 2012), Norway (DALLA TORRE 1898 as *B. universitatis* DALLA TORRE; YU et al. 2012), Russia (SZÉPLIGETI 1901 as *B. nitidiusculus*; TELENGA 1936 as *B. maslovskii*, and *B. segregator* TELENGA; PAPP 1968; SHENEFELT 1978; YU et al. 2012; PAPP 2012), Serbia (SZÉPLIGETI 1901 as *B. subtilis* SZÉPLIGETI, and *B. suspectus* SZÉPLIGETI; STANKOVIĆ et al. 2010; ŽIKIĆ et al. 2012, 2013; YU et al. 2012), Slovakia (GREESE 1928 as *B. rhynchiti* GREESE; YU et al. 2012), Slovenia (THOMSON 1892 as *B. lativentris* THOMSON; SZÉPLIGETI 1901 as *B. mixta* SZÉPLIGETI; YU et al. 2012; PAPP 2012), Sweden (THOMSON 1892 as *B. lativentris*; DALLA TORRE 1898 as *B. universitatis*; SZÉPLIGETI 1901 as *B. subtilis*; PAPP 1968; SHENEFELT 1978; YU et al. 2012), Switzerland (SZÉPLIGETI 1901 as *B. rufiscapus* and *B. mundus*; YU et al. 2012), Syria (SZÉPLIGETI 1904; PAPP 1968; SHENEFELT 1978), Turkey (BEYARSLAN et al. 2005, 2010, 2014; GÜLER & ÇAĞATAY 2007; YU et al. 2012; PAPP 2012), Turkmenistan, Uzbekistan (KOKUJEV 1912 as *B. vigilax* KOKUJEV; YU et al. 2012), UK (PAPP 1968; SHENEFELT 1978; BROAD et al. 2011; YU et al. 2012), Ukraine (SZÉPLIGETI 1901 as *B. suspectus* SZÉPLIGETI, and *B. nitidiusculus* SZÉPLIGETI; GREESE 1928 as *B. rhynchiti* GREESE; YU et al. 2012), former Yugoslavia (THOMSON 1892 as *B. lativentris* THOMSON; SZÉPLIGETI 1901 as *B. suspectus* SZÉPLIGETI, and *B. subtilis* SZÉPLIGETI; PAPP 1968; SHENEFELT 1978; YU et al. 2012).

C o m m e n t s : Parasitoid of *Scrobipalpa ocellatella* BOYD (Lepidoptera: Gelechiidae) (ABBASIPOUR et al. 2012). This species is found among most important polyphagous Bracon spp. which attacks various insects (FALCÓ et al. 1993; STANKOVIĆ et al. 2010). The host spectrum of *B. intercessor* is found to be very diverse; all the hosts are holometabolous larvae living concealed, especially in stems of herbs (VAN ACHTERBERG et al. 1990). It was reported as a parasite of *Rhynchites bacchus* (Coleoptera: Attelabidae), *Microlarinus lypriformis* (WOLLASTON), *M. lareyniei* (JACQUELIN DU VAL), *Anthonomus pomorum* LATREILLE, *A. pedicularis* LATREILLE, *A. sorbi* GERMAR, *Apion opeticum* BACH, *Lixus junci* BOHEMAN (Coleoptera: Curculionidae), *Parametriotes theae* KUSNEZOV (Lepidoptera: Momphidae), *Augasma atraphaxidellum* KUSNEZOV, *Sparganothis pilleriana* DENIS & SCHIFFERMÜLLER (Lepidoptera: Tortricidae), *Tetrasema hyalipennis* WALKER (Hymenoptera: Eurytomidae) (TOBIAS 1986; BEYARSLAN et al. 2005). In Serbia, it was reported attacking *Synthedon culiciformis* (L.) (Coleoptera: Curculionidae), *Paranthreme tabaniformis* (ROTTEMBERG) (Lepidoptera: Sesiidae) (STANKOVIĆ et al. 2010). In Bulgaria, it was reported as a parasitoid of *Paranthreme tabaniformis* (ROTTEMBERG) (Lepidoptera: Sesiidae) (GEORGIEV 2005). In the Netherlands, a female *B. intercessor* was reared from *Aegeria culiciformis* (L.) (Lepidoptera: Sesiidae) in *Betula* sp. (VAN

ACHTERBERG et al. 1990). It was also reported as a parasitoid of *Lixus incanescens* BOHEMAN, *Magdalis nitida* GYLLENHAL (Coleoptera: Curculionidae), *Prays citri* MILLIÈRE, *P. oleae* BERNARD (Lepidoptera: Yponomeutidae) (PAPP 2012); and as a hyperparasitoid of *Gyrinophagus* sp. (Hymenoptera: Pteromalidae) (MORENO et al. 1990).

***Bracon (Bracon) kozak* TELENGA 1936**

Distribution in Iran: Hormozgan (AMERI et al. 2014).

Distribution outside Iran: Eastern Palaearctic (Russia-Primor'ye Kray), Western Palaearctic (Azerbaijan, Kazakhstan, Moldova) (YU et al. 2012), Israel (PAPP 2011-2012), Russia, Turkmenistan, Uzbekistan (TELENGA 1936; YU et al. 2012), Turkey (BEYARSLAN et al. 2005, 2010; YU et al. 2012).

***Bracon (Bracon) lefroyi* (DUDGEON & GOUGH 1914)**

Distribution in Iran: Fars (HUSSAIN et al. 1976), Iran (no locality cited) (FALLAHZADEH & SAGHAEI 2010; YU et al. 2012).

Distribution outside Iran: India (YU et al. 2012).

Comments: This species was reports as parasitoid of *Earias insulana* BOISDUVAL (Lepidoptera: Noctuidae) (MODARRES AWAL 1997).

***Bracon (Bracon) leptus* MARSHALL 1897**

Distribution in Iran: Golestan (GHAHARI & FISCHER 2011c), Guilan (GHAHARI et al. 2009a, 2012a), Hormozgan (AMERI et al. 2014), Khorasan (GHAHARI et al. 2009b, in alfalfa field), Qazvin (GHAHARI et al. 2011c).

Distribution outside Iran: A common Palaearctic species (FALCÓ et al. 1993). Austria, Caucasus, Tajikistan, Turkmenistan, Ukraine (PAPP 1968; SHENEFELT 1978; TOBIAS 1995), Central Asia, Western Europe (TOBIAS 1986), Cyprus (SZÉPLIGETI 1901 as *B. rufipedor* SZÉPLIGETI; PAPP 2011-2012), Czech Republic (LOZAN et al. 2010), Far East, Kazakhstan, Siberia (PAPP 1968; SHENEFELT 1978; TOBIAS 1986; TOBIAS 1995), Greece (PAPP 2007), Hungary (SZÉPLIGETI 1901 as *B. centaureae* SZÉPLIGETI, and *B. rufipalpis* SZÉPLIGETI; SZÉPLIGETI 1904 as *B. rufipedor* SZÉPLIGETI; PAPP 1968 as *B. (B.) rufipalpis*; SHENEFELT 1978; TOBIAS 1995; PAPP 2008), Israel (PAPP 2011-2012), Romania (PAPP 1968 as *B. (B.) rufipalpis*); Serbia (ŽIKIĆ et al. 2010, 2012), Spain (SZÉPLIGETI 1904; PAPP 1968; SHENEFELT 1978; FALCÓ et al. 1993; TOBIAS 1995), Turkey (BEYARSLAN et al. 2002; BEYARSLAN et al. 2005, 2010, 2014; GÜLER & ÇAĞATAY 2007), USSR (PAPP 1968 as *B. (B.) rufipalpis*), Uzbekistan (SZÉPLIGETI 1901 as *B. rufipalpis* SZÉPLIGETI; PAPP 1968; SHENEFELT 1978; TOBIAS 1995).

Comments: This species was reported as a parasitoid of *Metzneria lapella* L. (Lepidoptera: Gelechiidae) in the heads of *agrinomy* (TOBIAS 1986; FALCÓ et al. 1993; BEYARSLAN et al. 2005).

***Bracon (Barcon) longicollis* (WESMAEL 1838)**

Distribution in Iran: Iran (no locality cited) (TOBIAS 1976, 1986; FALLAHZADEH & SAGHAEI 2010; PAPP 2012; YU et al. 2012).

Distribution outside Iran: Afghanistan, Bulgaria, Italy, Korea, the Netherlands, Russia, Sweden, Turkey, (YU et al. 2012; PAPP 2012), Austria, Bohemia,

Croatia, Denmark, Montenegro, Romania, Slovakia, Turkmenistan (PAPP 2012), Azerbaijan, China, Cyprus, Finland, Georgia, Greece, Lithuania, Moldova, Poland, Slovenia, Spain, Switzerland, Ukraine, Uzbekistan, former Yugoslavia (YU et al. 2012), Belgium (WESMAEL 1838; SZÉPLIGETI 1904; YU et al. 2012), Caucasus, Central Asia, Siberia, Western Europe (TOBIAS 1986), Czech Republic (LOZAN et al. 2010; YU et al. 2012), France, Germany (SZÉPLIGETI 1904; YU et al. 2012; PAPP 2012), Hungary (SZÉPLIGETI 1904; YU et al. 2012; PAPP 2012; PAPP 2008), Kazakhstan, Mongolia (TOBIAS 1986; YU et al. 2012), Serbia (ŽIKIĆ et al. 2012; YU et al. 2012; PAPP 2012), Turkey (BEYARSLAN et al. 2010), UK (SZÉPLIGETI 1904; BROAD et al. 2011; YU et al. 2012; PAPP 2012).

Comments: This species was reported as a parasitoid of *Chlorops pumilionis* BJERKANDER, *Ch. Taenipus* MEIGEN (Diptera: Chloropidae), *Mompha bradleyi* RIEDL (Lepidoptera: Momphidae), *?Glyphipterix simpliciella* STEPHENS (Lepidoptera: Glyphipterigidae), *Cephus pygmaeus* LINNAEUS (Hymenoptera: Cephidae), *Heptamelus ochroleucus* (STEPHENS) (Hymenoptera: Tenthredinidae) (PAPP 2012).

***Bracon (Bracon) luteator* (SPINOLA 1808)**

Distribution in Iran: Ilam (GHARALI 2004), Kermanshah (GHAHARI & FISCHER 2012), Iran (no locality cited) (BEYARSLAN et al. 2005; FALLAHZADEH & SAGHAEI 2010; YU et al. 2012).

Distribution outside Iran: Afghanistan, Albania, Austria, Bulgaria, Cyprus, France, Georgia, Germany, Greece, Italy, Latvia, Macedonia, Moldova, Russia, Slovenia, Sweden, Switzerland, Tunisia, Ukraine, former Yugoslavia (YU et al. 2012), Armenia, Kyrgyzstan (PAPP 2011-2012), Azerbaijan, Israel, Tajikistan, Turkmenistan, Uzbekistan (PAPP 2011-2012; YU et al. 2012), Caucasus, Central Asia, Western Europe (TOBIAS 1986), Croatia (PAPP 2009b; YU et al. 2012), Hungary, Mongolia (SZÉPLIGETI 1901 as *B. pilosulus*; PAPP 2011-2012; YU et al. 2012), Kazakhstan (TOBIAS 1986; YU et al. 2012), Serbia (ŽIKIĆ et al. 2012), Spain (MEDINA 1895; MARSHALL 1897; DOCAVO 1964; FALCÓ et al. 1993; YU et al. 2012), Turkey (BAYARSLAN et al. 2010, 2014; BEYARSLAN & ÇETIN ERDOĞAN 2012; YU et al. 2012), UK (BROAD et al. 2011; YU et al. 2012).

Comments: This species was reported as parasitoid of some host species belonging to the families Tephritidae (Diptera) and Gelechiidae (Lepidoptera) (FALCÓ et al. 1993). It was also reported as parasitoid of safflower shoot flies (GHARALI 2004), *Urophora* sp. (Diptera: Tephritidae) (GHAHARI & FISCHER 2012). It was also reported as the parasitoid of Lepidoptera associated with Compositae plants (e.g. *Centaurea* spp., *Oirsium* spp., *Carduus* spp.) infecting larvae of *Metzneria aestivella* ZELLER, *M. lapella* LATREILLE (Lepidoptera: Gelechiidae), *Urophora sensitialis* L. (Diptera: Tephritidae) (TOBIAS 1986; BEYARSLAN et al. 2005).

***Bracon (Bracon) mariae* DALLA TORRE 1898**

Distribution in Iran: Guilan (GHAHARI et al. 2012a).

Distribution outside Iran: Armenia, Azerbaijan, Croatia, Germany, Israel, Italy, Moldova, Russia, Slovenia, Spain, Tunisia, Ukraine, former Yugoslavia (YU et al. 2012), Caucasus, Central Asia, North Africa, Western Europe (TOBIAS 1986), Hungary (SZÉPLIGETI 1901, 1904 as *B. pygidialis*; MAIDL 1923 as *B. semiflavus*; YU et al. 2012), Kazakhstan (TOBIAS 1986; YU et al. 2012), Serbia (ŽIKIĆ et al. 2012), South

Europe (EBNER 1930 as *Striobracon semiflavus* EBNER), Sweden (SZÉPLIGETI 1904; YU et al. 2012), Switzerland (MAIDL 1923 as *B. semiflavus* THOMSON; YU et al. 2012), Turkey (BEYARSLAN et al. 2005, 2010, 2014; YU et al. 2012).

***Bracon (Bracon) nigratus* WESMAEL 1838**

Distribution in Iran: Hormozgan (AMERI et al. 2014), Lorestan (GHAHARI et al. 2012b).

Distribution outside Iran: Europe (PAPP 1968). Albania, Bohemia, Bulgaria, Denmark, Georgia, Slovakia (PAPP 2012), Austria, Ireland, Italy, Lithuania, Moldova, Poland, Russia, Switzerland, former Yugoslavia (YU et al. 2012), Belgium (WESMAEL 1838; SZÉPLIGETI 1904; YU et al. 2012), France, Hungary, Romania, Ukraine (YU et al. 2012; PAPP 2012), Germany, Sweden (SZÉPLIGETI 1904; YU et al. 2012; PAPP 2012), Serbia (TOBIAS 1986; ŽIKIĆ et al. 2012), Spain (DOCAVO 1964; FALCÓ et al. 1993; YU et al. 2012), Turkey (BEYARSLAN et al. 2005, 2010, 2014; YU et al. 2012; PAPP 2012), UK (SZÉPLIGETI 1904; BROAD et al. 2011; YU et al. 2012; PAPP 2012), Western Europe (TOBIAS 1986).

Comments: FALCÓ et al. (1993) reported this species as parasitoid of a number of host species belonging to the families Tephritidae (Diptera), Coleophoridae, Tortricidae and Zygaenidae (Lepidoptera). It was also reported as parasitoid of *Zygaena achilleae* (ESPER) (Lepidoptera: Zygaenidae), *Grapholitha compositella* FABRICIUS (Lepidoptera: Tortricidae), *Coleophora millefolii* ZELLER (Lepidoptera: Coleophoridae), *Zygaena achiellae* (ESPER) (Lepidoptera: Zygaenidae), *Chaetostomella cylindrical* (ROBINEAU-DESVOIDY) (Diptera: Tephritidae) (TOBIAS 1986; BEYARSLAN et al. 2005). PAPP (2012) reported the following species as hosts: *Coleophora millefolii* ZELLER (Lepidoptera: Coleophoridae), *Cydia compositella* FABRICIUS (Lepidoptera: Tortricidae), *Zygaena achilleae* ESPER (Lepidoptera: Zygaenidae), *Sitarea scorzonerae* ROBINEAU-DESVOIDY (Diptera: Tephritidae).

***Bracon (Bracon) pectoralis* WESMAEL 1838**

Distribution in Iran: Ardabil (GHAHARI & FISCHER 2011b), Golestan (GHAHARI et al. 2009b, in alfalfa fields; GHAHARI et al. 2010a), Isfahan (GHAHARI et al. 2011b).

Distribution outside Iran: Albania, Bulgaria, Tunisia (PAPP 1968, 2012; SHENEFELT 1978; TOBIAS 1995), Algeria, Cyprus, Egypt, Georgia, Jordan, the Netherlands, Portugal, Slovakia, Sweden, Syria, Turkmenistan (PAPP 2012), Austria, Germany, Russia, Ukraine, former Yugoslavia (PAPP 1968; SHENEFELT 1978; TOBIAS 1995), Algeria (SZÉPLIGETI 1904; PAPP 2012), Armenia, Israel, Kyrgyzstan, Tajikistan, Uzbekistan, Mongolia (PAPP 2011-2012), Austria, Hungary (SZÉPLIGETI 1901, 1904 as *B. versicolor* SZÉPLIGETI), Azerbaijan, Turkmenistan (PAPP 2011-2012; PAPP 1968; SHENEFELT 1978; TOBIAS 1995), Belgium (WESMAEL 1838 as *Bracon pectoralis* WESMAEL; SZÉPLIGETI 1904; PAPP 1968; SHENEFELT 1978; TOBIAS 1995), Caucasus, Central Asia, Western Europe (TOBIAS 1986, 1995), Cyprus (PAPP 1990, 1998), Croatia (SZÉPLIGETI 1896 as *B. sulphurator* SZÉPLIGETI; PAPP 2009b; PAPP 2012), England (SZÉPLIGETI 1904; PAPP 1968; SHENEFELT 1978; TOBIAS 1995; BROAD et al. 2011; PAPP 2012), France (SZÉPLIGETI 1904; PAPP 1968; SHENEFELT 1978; TOBIAS 1995; PAPP 2012), Greece (PAPP 1990, 1998, 1999b, 2003, 2012, 2007), Hungary (SZÉPLIGETI 1896 as *B. ochrosus* SZÉPLIGETI, and *B. sulphurator* SZÉPLIGETI; SZÉPLIGETI 1904 as *B. sulphurator*

SZÉPLIGETI; PAPP 1968; SHENEFELT 1978; TOBIAS 1995), Italy (SZÉPLIGETI 1896 as *B. sulphurator* SZÉPLIGETI; PAPP 1968, 2012; SHENEFELT 1978; TOBIAS 1995), Kazakhstan (PAPP 1968; SHENEFELT 1978; TOBIAS 1986, 1995), Macedonia (PAPP 2009b; PAPP 2012), Romania (SZÉPLIGETI 1896 as *B. ochrosus* SZÉPLIGETI, and *B. sulphurator* SZÉPLIGETI; PAPP 2012), Serbia (ŽIKIĆ et al. 2012), Slovenia (SZÉPLIGETI 1896 as *B. sulphurator* SZÉPLIGETI), Spain (MARSHALL 1888; MEDINA 1895; SZÉPLIGETI 1904; DOCAVO 1964; PAPP 1968, 2012; FALCÓ et al. 1987, 1993; SHENEFELT 1978; TOBIAS 1995), Turkey (BEYARSLAN 1986; BEYARSLAM & INANÇ 1995; BEYARSLAN et al. 2002; BEYARSLAN et al. 2005, 2010, 2014; GÜLER & ÇAĞATAY 2007; BEYARSLAN & ÇETIN ERDOĞAN 2012).

C o m m e n t s : FALCÓ et al. (1993) reported this species as parasitoid of a number of hosts of the families Bruchidae (Coleoptera), Gracillariidae, Phycitidae and Pterophoridae (Lepidoptera). It was reported as parasitoid of *Pontania vesicator* BREMI (Hymenoptera: Tenthredinidae) (GHAHARI & FISCHER 2012). It was also reported as the parasitoid of *Pontania viminalis* LATREILLE, *P. vesicator* BREMI, *P. proxima* (LEPELETIER), *P. pedunculi* (HARTIG), *Nematus bipartitus* LEPELETIER, *N. salcis* L. (Hymenoptera: Tenthredinidae), *Cochylis pallidana* ZELLER (Lepidoptera: Tortricidae), *Plagionotus arcuatus* LINNAEUS, *Cyltus* sp. (Coleoptera: Cerambycidae) (BEYARSLAN et al. 2005). PAPP (2012) reported the following hosts: *Oystoma dimidiatum* DESBROCHERS (Coleoptera: Apionidae), *Bruchidius lividimanus* GYLLENHAL, *B. fasciatus* OLIVIER, *Bruchophagus roddi* GUSSAKOVSKY (Coleoptera: Bruchidae), *Larinus flavescens* GERMAR, *L. sturnus* SCHALLER, *Rhinocyllus conicus* FRÖLICH (Coleoptera: Curculionidae), *Alucita hexadactyla* LINNAEUS, *A. huebneri* WALLENGREN (Lepidoptera: Alucitidae), *Metzeneria aestivella* ZELLER, *Sitotroga cerealella* OLIVIER (Lepidoptera: Gelechiidae), *Etiella zinckenella* TREITSCHKLE (Lepidoptera: Pyralidae), *Acantophilus helianthi* ROSSI, *Chaetorellia hexachaeta* LOEW, *Terellia virens* LOEW, *Urophora quadrifasciata* MEIGEN, *Xyphosia miliaria* SCHRANK (Diptera: Tephritidae), *Aphelonyx cerricola* GIRAUD (Hymenoptera: Cynipidae), *Bruchophagus roddi* GUSSAKOVSKY (Hymenoptera: Eurytomidae).

***Bracon (Bracon) robustus* HEDWIG 1961**

Distribution in Iran: Khorasan (SAMIN et al. 2011).

Distribution outside Iran: Afghanistan (HEDWIG 1961; YU et al. 2012).

***Bracon (Bracon) scabriusculus* DALLA TORRE 1898**

Distribution in Iran: Iran (no locality cited) (TELENGA 1936; FALLAHZADEH & SAGHAEI 2010; YU et al. 2012).

Distribution outside Iran: Croatia, Germany, Hungary, Kazakhstan, Romania, Slovenia, Spain, former Yugoslavia (YU et al. 2012), Italy (SZÉPLIGETI 1904; YU et al. 2012), Serbia (ŽIKIĆ et al. 2012).

***Bracon (Bracon) schmidti* KOKUJEV 1912**

Distribution in Iran: Iran (no locality cited) (TELENGA 1936; TOBIAS 1976, 1986; SHENEFELT 1978; FALLAHZADEH & SAGHAEI 2010; PAPP 2011-2012; YU et al. 2012).

Distribution outside Iran: Azerbaijan (TOBIAS 1986; PAPP 2011-2012; YU et al. 2012), Cyprus, Uzbekistan (PAPP 2011-2012; YU et al. 2012), Hungary, Turkey (BEYARSLAN et al. 2014; YU et al. 2012), Israel (PAPP 2011-2012).

***Bracon (Bracon) subrugosus* SZEPLIGETI 1904**

Distribution in Iran: Lorestan (GHAHARI et al. 2012b).

Distribution outside Iran: Austria, Azerbaijan, Bulgaria, Croatia, Czech Republic, France, Germany, Italy, Kazakhstan, Moldova, the Netherlands, Poland, Romania, Russia, Slovakia, Slovenia, Sweden, Switzerland, Ukraine, United Kingdom, Uzbekistan, former Yugoslavia (YU et al. 2012), Hungary (SZÉPLIGETI 1904; PAPP 2008; YU et al. 2012), Serbia (ŽIKIĆ et al. 2012 as *B. subglaber* SZÉPLIGETI), Turkey (BEYARSLAN et al. 2005, 2010 as *B. subglaber* SZÉPLIGETI; YU et al. 2012).

Comments: Parasitoid of *Ceutorhynchus* sp. (Coleoptera: Curculionidae) (GHAHARI et al. 2012b). It was also reported as the parasitoid for a number of host species, *Paranthrene tabaniformis* ROTTEMBERG, *Pennisetia hyalaeiformis* LASPEYRE (Lepidoptera: Sesiidae), *Epichnopterix sieboldi* ROTTEMBERG (Lepidoptera: Psychidae), *Aethes williana* (BRAHM) (Lepidoptera: Tortricidae), *Metzneria lapellae* LATREILLE (Lepidoptera: Gelechiidae), *Urophora cardui* LATREILLE, *U. solstitialis* LATREILLE, *U. quadrifasciata* MEIGEN, *Terellia serratulae* LATREILLE, *Tephritis leontontis* DE GEER, *Noeeta pupillata* FALLÉN (Diptera: Tephretidae), *Ceutorhynchus* sp. (Coleoptera: Curculionidae) (BEYARSLAN et al. 2005).

***Bracon (Bracon) trucidator* MARSHALL 1888**

Distribution in Iran: Ardabil (GHAHARI & FISCHER 2011b), Kermanshah (GHAHARI et al. 2010b), Qazvin (GHAHARI et al. 2011c).

Distribution outside Iran: Albania (MARSHALL 1897 as *B. hilaris* Marshall; YU et al. 2012), Algeria, Armenia, Austria, Azerbaijan, Georgia, Germany, Greece, Moldova, Slovenia, Sweden, Tajikistan, Tunisia, Ukraine (YU et al. 2012), Belgium, Lithuania (PAPP 1968; SHENEFELT 1978), Caucasus, Central Asia, Western Europe (TOBIAS 1986), Croatia (PAPP 2009b; YU et al. 2012), Czech Republic (LOZAN et al. 2010), England (PAPP 1968; SHENEFELT 1978; BROAD et al. 2011), France, Romania (PAPP 1968; SHENEFELT 1978; YU et al. 2012), Greece (PAPP 1990, 1999b, 2003, 2007; YU et al. 2012), Hungary (SZÉPLIGETI 1904 as *B. pannonicus* SZÉPLIGETI; PAPP 1968, 2008; SHENEFELT 1978; YU et al. 2012), Italy (THOMSON 1892 as *B. bilineatus* THOMSON; MARSHALL 1897; MAIDL 1923 as *B. hilaris* MARSHALL; SZÉPLIGETI 1904; PAPP 1968; SHENEFELT 1978; YU et al. 2012), Kazakhstan (PAPP 1968; SHENEFELT 1978; TOBIAS 1986; YU et al. 2012), Montenegro (PAPP 2010 as *B. marshalli* FAHRINGER), Russia (TELENGA 1936 as *B. marshalli* FAHRINGER; PAPP 1968; SHENEFELT 1978; YU et al. 2012), Serbia (ŽIKIĆ et al. 2012 as *B. marshalli*), Spain (MARSHALL 1897 as *B. hilaris* MARSHALL; PAPP 1968; SHENEFELT 1978; YU et al. 2012), Switzerland (PAPP 1968; SHENEFELT 1978; YU et al. 2012), Turkey (BEYARSLAN & INANÇ 1995; BEYARSLAN et al. 2005, 2010, 2014; GÜLER & ÇAĞATAGY 2007; YU et al. 2012), former Yugoslavia (MARSHALL 1897 as *B. hilaris* MARSHALL; PAPP 1968; SHENEFELT 1978; YU et al. 2012).

Comments: This species was reported as a parasitoid of *Metzneria lapellae* L. (Lepidoptera: Gelechiidae) in heads of agrimony (TOBIAS 1986; BEYARSLAN et al. 2005).

***Bracon (CyanopteroBracon) illyricus* MARSHALL 1888**

Distribution in Iran: Guilan (GHAHARI et al. 2012a), Isfahan (GHAHARI et al. 2011b), Iran (no locality cited) (YU et al. 2012).

Distribution outside Iran: Albania, Hungary (SCHMIEDEKNECHT 1897 as *B. mauritanicus* SCHMIEDEKNECHT; SZÉPLIGETI 1904; MAIDL 1923; PAPP 2008; YU et al. 2012), Algeria (SCHMIEDEKNECHT 1897; MAIDL 1923 as *B. mauritanicus*; SZÉPLIGETI 1904 as *B. mauritanicus*; YU et al. 2012), Armenia, Austria, Cyprus, Georgia, Macedonia, Moldova, Ukraine, former Yugoslavia (YU et al. 2012), Azerbaijan (SCHMIEDEKNECHT 1897 as *B. mauritanicus*; TOBIAS 1986 as *B. mauritnicus*; YU et al. 2012), Caucasus, Central Asia (TOBIAS 1986), Croatia (KRIECHBAUMER 1890 as *B. xanthogaster* NEES; PAPP 2009b; YU et al. 2012), England (BROAD et al. 2011 as *B. xanthogaster*), Greece (LOZAN 2004; PAPP 2007; YU et al. 2012), Israel, Spain, Switzerland, Tunisia (SCHMIEDEKNECHT 1897 as *B. mauritanicus* Schmiedeknecht; YU et al. 2012), Italy (COSTA 1888 as *B. uromelas* COSTA; SCHMIEDEKNECHT 1897 as *B. mauritanicus* SCHMIEDEKNECHT; SZÉPLIGETI 1904 as *B. xanthogaster* SZÉPLIGETI; SZÉPLIGETI 1904 as *B. kriechbaumeri* SZÉPLIGETI; YU et al. 2012), North Africa (TOBIAS 1986; FALCÓ et al. 1993 as *B. mauritnicus*), Serbia (ŽIKIĆ et al. 2012 as *B. uromelas*), Turkey (BEYARSLAN et al. 2005, 2010; YU et al. 2012), Uzbekistan (SZÉPLIGETI 1901 as *B. kriechbaumeri* SZÉPLIGETI; YU et al. 2012).

Comments: Parasitoid of *Larinus turbinatus* GYLLENHAL (Coleoptera: Curculionidae) (TOBIAS 1986; BEYARSLAN et al. 2005; GHAHARI et al. 2012a).

***Bracon (CyanopteroBracon) sabulosus* SZÉPLIGETI 1896**

Distribution in Iran: Iran (no locality cited) (TELENGA 1936; TOBIAS 1976, 1986; SHENEFELT 1978; FALLAHZADEH & SAGHAEI 2010; YU et al. 2012).

Distribution outside Iran: Azerbaijan, Bulgaria, Cyprus, Greece, Jordan, Macedonia, Moldova, Montenegro, Tajikistan, Ukrain, Uzbekistan (YU et al. 2012), Caucasus (SHENEFELT 1978; TOBIAS 1986, 1995), Central Asia (TOBIAS 1986), Hungary (SZÉPLIGETI 1904; SHENEFELT 1978; TOBIAS 1986, 1995; YU et al. 2012), Kazakhstan, Romania, former Yugoslavia (SHENEFELT 1978; TOBIAS 1986, 1995; YU et al. 2012), Russia (SHENEFELT 1978; TOBIAS 1995; YU et al. 2012), Serbia (ŽIKIĆ et al. 2012; YU et al. 2012), Turkey (GÜLER & ÇAĞATAGY 2007; BEYARSLAN et al. 2010, 2014; YU et al. 2012), Turkmenistan (FAHRINGER 1934 as *Iphiaulax turkestanus* FAHRINGER; YU et al. 2012).

Comments: This species was observed in capitula of Compositae (*Carduus* spp.) infested by larvae of fruit flies (Diptera: Tephritidae) (TOBIAS 1986).

***Bracon (GlabroBracon) abbreviator* NEES 1834**

Distribution in Iran: Qazvin (Ghahari et al. 2011c).

Distribution outside Iran: Albania, The Netherlnds (WESMAEL 1838 as *B. oostmaeli* WESMAEL; YU et al. 2012),

Algeria, Armenia, Austria, Czech Republic, Cyprus, Georgia, Italy, Jordan, Macedonia, Romania, Slovakia, Slovenia, Spain (PAPP 2008; YU et al. 2012), Azerbaijan, Croatia, Finland, France, Japan, Kazakhstan, Lithuania, Morocco, Norway, Balears, Tajikistan, Turkmenistan (YU et al. 2012), Belgium (WESMAEL 1838 as *B. oostmaeli*; SZÉPLIGETI 1904 as *B. regularis* (WESMAEL); YU et al. 2012), Greece (PAPP 2007, 2008; YU et al.

2012), Germany, Poland (SZÉPLIGETI 1904 as *B. regularis*; PAPP 2008; YU et al. 2012), Hungary (SZÉPLIGETI 1901, 1904 as *B. rufigaster* SZÉPLIGETI; PAPP 2008; YU et al. 2012), Israel (PAPP 2008, 2011-2012; YU et al. 2012), Russia, Ukraine, former Yugoslavia (SZÉPLIGETI 1901 as *B. rufigaster*; YU et al. 2012), Serbia (ŽIKIĆ et al. 2012; ŽIKIĆ et al. 2013), Switzerland (SZÉPLIGETI 1901; TELENGA 1936 as *B. rufiventris* TELENGA; YU et al. 2012), Turkey (BEYARSLAN & ÇETIN ERDOĞAN 2012; YU et al. 2012), UK (WESMAEL 1838 as *B. oosmaeli*; SZÉPLIGETI 1904; PAPP 2008; BROAD et al. 2011; YU et al. 2012)

Comments: This species was reported attacking caterpillars of various lepidopteran families including, *Cochylis posterana* ZELLER, *Leguminivora glycinivorella* (MATSUMURA), *Rhyacionia buoliana* (DENIS & SCHIFFERMÜLLER) (Lepidoptera: Tortricidae), *Coleophora follicularis* VALLOT (Lepidoptera: Coleophoridae), *Elichista gangabella* ZELLER (Lepidoptera: Elichistidae), *Gracillaria syringella* (FABRICIUS) (Lepidoptera: Gracillariidae), *Oria muscosa* (HÜBNER), *Speia vutera* (STOLL) (Lepidoptera: Noctuidae). It was also reported as parasitoid of *Anthonomus pomorum* (L.) (Coleoptera: Curculionidae), *Cephus pygmaeus* (L.) (Hymenoptera: Cephidae), *Diplolepis rosae* (L.) (Hymenoptera: Cynipidae) (STANKOVIĆ et al. 2010; YU et al. 2012).

***Bracon (Glabrobracon) angustiventris* TOBIAS 1957**

Distribution in Iran: Kermanshah (GHAHARI & FISCHER 2012).

Distribution outside Iran: Armenia, Azerbaijan, Kazakhstan, Turkmenistan (YU et al. 2012), Central Asia, Transcaucasica (TOBIAS 1986), Moldova (TOBIAS 1986; YU et al. 2012), Turkey (BEYARSLAN et al. 2005; YU et al. 2012).

***Bracon (Glabrobracon) atrator* (NEES VON ESENBECK 1834)**

Distribution in Iran: Guilan (GHAHARI et al. 2012a).

Distribution outside Iran: Austria, Germany, Italy (SZÉPLIGETI 1904; MAIDL 1923; YU et al. 2012); Azerbaijan, Belarus, Belgium, Croatia, France, Georgia, Ireland, Kazakhstan, Latvia, Lithuania, Moldova, Mongolia, the Netherlands, Poland, Russia, Tunisia, former Yugoslavia (YU et al. 2012), Cyprus, Israel (PAPP 2011-2012; YU et al. 2012), Czech Republic (LOZAN et al. 2010), Finland, Sweden (THOMSON 1892 as *B. longicauda* THOMSON; YU et al. 2012), Greece (PAPP 2003 as *B. delibator* HALIDAY; PAPP 2007; YU et al. 2012), Hungary, Switzerland (SZÉPLIGETI 1904 as *B. longicauda* THOMSON; PAPP 2008; YU et al. 2012), Macedonia (PAPP 2010; YU et al. 2012), Serbia (ŽIKIĆ et al. 2012), Spain (DOCAVO 1964; FALCÓ et al. 1993; YU et al. 2012), Turkey (BEYARSLAN et al. 2005, 2010, 2014; BEYARSLAN & ÇETIN ERDOĞAN 2012; YU et al. 2012), UK (BROAD et al. 2011; YU et al. 2012).

Comments: This species was reported as parasitoid of a number of host species of the families Agromyzidae and Tephritidae (Diptera), Curculionidae (Coleoptera), Coleophoridae (Lepidoptera) (FALCÓ et al. 1993). It was reported also reported as a parasitoid of *Gymneptron villosulum* GYLLENHAL, *Apion buddebergi* BEDEL (Coleoptera: Curculionidae), *Tephritis separata* RONDANI, *T. conura* LOEW (Diptera: Tephritidae), *Phytobia flavifrons* (MEIGEN) (Diptera: Agromyzidae), *Coleophora coronillae* ZELLER (Lepidoptera: Coleophoridae) (BEYARSLAN et al. 2005).

***Bracon (Glabrobracon) chrysostigma* GREESE 1928**

Distribution in Iran: Golestan (GHAHARI & FISCHER 2011c).

Distribution outside Iran: France, Israel, Moldova, Romania, Ukraine (PAPP 2011-2012; YU et al. 2012), Greece (PAPP 1990, 2007, 2011-2012; YU et al. 2012), Hungary (PAPP 2008, 2011-2012; YU et al. 2012), Macedonia, Turkey, former Yugoslavia (YU et al. 2012), Turkey (BEYARSLAN et al. 2010).

***Bracon (Glabrobracon) ciscaucasicus* TELENGA 1936**

Distribution in Iran: Ardabil (RASTEGAR et al. 2012), Lorestan (GHAHARI et al. 2012b).

Distribution outside Iran: Azerbaijan, Hungary, Kazakhstan, Mongolia, Ukraine (YU et al. 2012), Turkey (BEYARSLAN et al. 2005, 2010; YU et al. 2012).

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

Distribution in Iran: Mazandaran (PAPP 1999a), Iran (no locality cited) (FALLAHZADEH & SAGHAEI 2010).

Distribution outside Iran: Iraq (PAPP 1999c; YU et al. 2012).

***Bracon (Glabrobracon) dolichurus* MARSHALL 1897**

Distribution in Iran: Kermanshah (GHAHARI & FISCHER 2012).

Distribution outside Iran: Czech Republic, Russia, Slovakia, Spain (YU et al. 2012), France, Hungary, Romania (PAPP 1999c; YU et al. 2012), Turkey (BEYARSLAN et al. 2005, 2010, 2014; BEYARSLAN & ÇETIN ERDOĞAN 2012; YU et al. 2012).

***Bracon (Glabrobracon) epitriptus* MARSHALL 1885**

Distribution in Iran: East Azarbaijan (RASTEGAR et al. 2012), Fars (LASHKARI BOD et al. 2010, 2011), Hormozgan (AMERI et al. 2014 as *B. (Orthobracon) epitriptus*), Isfahan (GHAHARI et al. 2011b), Khorasan (SAMIN et al. 2011).

Distribution outside Iran: Armenia, Austria, Azerbaijan, Belarus, China, Georgia, Germany, Italy, Korea, Lithuania, Moldova, the Netherlands, Poland, Romania, Slovenia, Switzerland, Ukraine, former Yugoslavia (YU et al. 2012), Caucasus, Western Europe (TOBIAS 1986), Croatia, Macedonia (PAPP 2009b), Czech Republic (LOZAN et al. 2010), Greece (PAPP 1999, 2003, 2007; YU et al. 2012), Hungary (SZÉPLIGETI 1896, 1904 as *B. pallidipes* SZÉPLIGETI; PAPP 2008; YU et al. 2012), Kazakhstan, Russia (TOBIAS 1986; YU et al. 2012), Mongolia (PAPP 2009a; YU et al. 2012) Serbia (ŽIKIĆ et al. 2012), Turkey (BEYARSLAN et al. 2005; YU et al. 2012), UK (SZÉPLIGETI 1904; BROAD et al. 2011; YU et al. 2012).

Comments: This species was reported as the parasitoid of *Iteomyia capreae* WINNERTZ (Diptera: Cecidomyiidae), *Agromyza flaviceps* (FALLÉN) (Diptera: Agromyzidae), *Cryptorrhynchus lapathi* L. (Coleoptera: Curculionidae) (TOBIAS 1986; BEYARSLAN et al. 2005).

***Bracon (Glabrobracon) helleni* TELENGA 1936**

Distribution in Iran: West Azarbaijan (GHAHARI & FISCHER 2011a).

Distribution outside Iran: Cyprus, Israel, Kazakhstan, Switzerland, Turkey (PAPP 2011-2012; BEYARSLAN et al. 2010; YU et al. 2012).

***Bracon (Glabrobracon) hemiflavus* SZÉPLIGETI 1901**

Distribution in Iran: Iran (no locality cited) (PAPP 2008; YU et al. 2012).

Distribution outside Iran: Azerbaijan, Bulgaria, Kazakhstan, Poland, Russia (YU et al. 2012), Croatia, Cyprus, France, Greece, Hungary, Israel, Italy, Macedonia, Romania, Slovakia, Spain, Syria, Turkmenistan, Uzbekistan, former Yugoslavia (PAPP 2008; YU et al. 2012), Turkey (PAPP 2008; BEYARSLAN et al. 2010, 2014; YU et al. 2012).

***Bracon (Glabrobracon) immutator* NEES 1834**

Distribution in Iran: Hormozgan (AMERI et al. 2014).

Distribution outside Iran: Eastern Palaearctic (Korea, Russia), Western Palaearctic (Austria, Bosnia Herzegovina, Croatia, Cyprus, Czech Republic, Denmark, Finland, France, Italy, Kazakhstan, Latvia, Macedonia, Moldova, the Netherlands, Poland, Russia, Serbia, Slovenia, Sweden, Switzerland, Ukraine) (YU et al. 2012), Belgium (WESMAEL 1838 as *Braco immutator*; YU et al. 2012), Germany (PAPP 2012; YU et al. 2012), Hungary (PAPP 2008; YU et al. 2012), Mongolia (PAPP 2009a), Turkey (BEYARSLAN et al. 2005, 2010; YU et al. 2012), UK (MARSHALL 1885 as *B. praetermissus*; BROAD et al. 2012).

***Bracon (Glabrobracon) kirgisorum* TELENGA 1936**

Distribution in Iran: Golestan (GHAHARI & FISCHER 2011b; SAKENIN et al. 2012), Northern Iran (no locality cited) (SAKENIN et al. 2011; YU et al. 2012).

Distribution outside Iran: Kyrgyzstan, Lithuania, Moldova (YU et al. 2012), Turkey (BEYARSLAN et al. 2010; BEYARSLAN & ÇETIN ERDOĞAN 2012; YU et al. 2012).

***Bracon (Glabrobracon) lividus* TELENGA 1936**

Distribution in Iran: Ardabil (GHAHARI & FISCHER 2011b), East Azarbaijan (GHAHARI & FISCHER 2011a), Golestan (GHAHARI & FISCHER 2011c).

Distribution outside Iran: Armenia, European Russia, Germany (PAPP 2011-2012), Cyprus, Kazakhstan, Switzerland (YU et al. 2012), Greece (PAPP 2007, 2011-2012), Hungary (PAPP 2008, 2011-2012), Israel (PAPP 2011-2012; YU et al. 2012), Turkey (BEYARSLAN et al. 2005, 2010; PAPP 2011-2012; YU et al. 2012).

***Bracon (Glabrobracon) minutator* (FABRICIUS 1798)**

Distribution in Iran: Hormozgan (AMERI et al. 2014), Isfahan (GHAHARI et al. 2011b), Kermanshah (GHAHARI & FISCHER 2012), Iran (no locality cited) (TOBIAS 1961, 1976; FALLAHZADEH & SAGHAEI 2010; YU et al. 2012).

Distribution outside Iran: Caucasus, Central Asia, East Siberia, North Africa, Western Europe (TOBIAS 1986 as *B. subglaber* SZÉPLIGETI), entire Europe (MAIDL 1923), and West Palaearctic Region (PAPP 1968 as *B. (B.) minutator*). Algeria (SCHMIEDEKNECHT 1897 as *B. thalassinus* SCHMIEDEKNECHT; PAPP 2008; YU et al. 2012), Armenia, Austria, Azerbaijan, Belarus, Bulgaria, China, Croatia, Cyprus, Denmark, Finland, France, Ireland, Israel, Italy, Jordan, Latvia, Lithuania, Macedonia,

Moldova, Mongolia, Poland, Russia, Slovenia, Spain, Switzerland, Tunisia, former Yugoslavia (PAPP 2008; YU et al. 2012), Belgium (WESMAEL 1838; YU et al. 2012), Czech Republic, Germany (SZÉPLIGETI 1904 as *B. tener* SZÉPLIGETI; PAPP 2008; YU et al. 2012), Turkey (SZÉPLIGETI 1904 as *B. tener* SZÉPLIGETI; YU et al. 2012), Greece (PAPP 2007, 2008; YU et al. 2012), Hungary (SZÉPLIGETI 1904 as *B. tener* SZÉPLIGETI; PAPP 1991; PAPP 2008 as *B. (Glabrobracon) abbreviator*; YU et al. 2012), Akhstan (TOBIAS 1986 as *B. subglaber* SZÉPLIGETI; YU et al. 2012), Serbia (ŽIKIĆ et al. 2012), UK (BROAD et al. 2011; YU et al. 2012), Turkey (BEYARSLAN et al. 2010, 2014), Ukraine (TELENGA 1936 as *B. notatus* TELENGA; YU et al. 2012).

C o m m e n t s : Parasitoid of *Anthonomus pomorum* L. (Coleoptera: Curculionidae) (GHAHARI & FISCHER 2012). This species was also reported as parasitoid of *Ryacionia buoliana* DENIS & SCHIFFERMÜLER, *Leguminivora glycinivorella* (MATSUMURA), *Cochylis posterana* ZELLER (Lepidoptera: Tortricidae), *Pennisetia hyalaeiformis* (LASPEYRES) (Lepidoptera: Sesiidae), *Caloptilia syringella* FABRICIUS (Lepidoptera: Gracillariidae), *Mesapamea secalis* LATREILLE, *Oria musculosa* HÜBNER, *Sesamia nonagrioides* (LEFÈVRE) (Lepidoptera: Noctuidae), *Anthonomus pomorum* LATREILLE (Coleoptera: Curculionidae), *Lipera lucens* MEIGEN (Diptera: Chloropidae), *Cephus pygmaeus* LATREILLE (Hymenoptera: Cephidae) (BEYARSLAN et al. 2005). TOBIAS (1986) has also reported this species as the parasitoid of lepidopterans *Paranthrene tabaniformis* ROTTEMBERG, *Pennisetia hyalaeiformis* (LASPEYRES) (Lepidoptera: Sesiidae), *Epichnopteryx sieboldi* ROTTEMBERG (Lepidoptera: Psychidae), *Aethes williana* (BRAHM) (Lepidoptera: Tortricidae), *Metzneria lappella* LATREILLE (Lepidoptera: Gelechiidae), *dipterans Urophora cardui* LATREILLE, *U. solstitialis* LATREILLE, *U. quadrifasciata* MEIGEN, *Terellia serratae* LATREILLE, *Tephritis leontodontis* De GEER, *Noeeta pupillata* FALLÉN (Diptera: Tephritidae), and beetles *Centorhynchus* sp. (Coleoptera: Curculionidae) (TOBIAS 1986). It was also reported as parasitoids of *Cephus* spp. (Hymenoptera: Cephidae) (SHCHEGOLEV 1930; HOELMER & SHANOWER 2004).

***Bracon (Glabrobracon) nigripilosus* TOBIAS 1957**

Distribution in Iran: Kermanshah (GHAHARI & FISCHER 2012).

Distribution outside Iran: Russia (YU et al. 2012), Turkey (BEYARSLAN et al. 2005, 2010; YU et al. 2012).

***Bracon (Glabrobracon) nigriventris* (WESMAEL 1838)**

Distribution in Iran: Lorestan (GHAHARI et al. 2012b).

Distribution outside Iran: Albania, Austria, Cyprus, Latvia, Moldova, Poland, Switzerland, former Yugoslavia (YU et al. 2012), Armenia, Croatia, France, Hungary, Italy, Romania, (YU et al. 2012; PAPP 2012), Azerbaijan (TELENGA 1936 as *B. lencoranus* TELENGA; YU et al. 2012), Belgium (WESMAEL 1838; SZÉPLIGETI 1904; YU et al. 2012), Bulgaria, Denmark, Slovakia (PAPP 2012), Caucasus, Central Asia, Western Europe, (TOBIAS 1986), England (BROAD et al. 2011; PAPP 2012), Germany (SZÉPLIGETI 1904; YU et al. 2012; PAPP 2012), Hungary, Poland, Romania (SZÉPLIGETI 1901 as *B. subornatus* SZÉPLIGETI), Kazakhstan (TELENGA 1936 as *B. laticeps* TELENGA; TOBIAS 1986; YU et al. 2012), Macedonia (PAPP 2009b, 2012; YU et al. 2012), Mongolia (TELENGA 1936 as *B. persimilis* TELENGA; PAPP 1967; PAPP 1984 as *B. turolus* PAPP; TOBIAS 1986; YU et al. 2012; PAPP 2012), Russia (TELENGA 1936 as *B.*

persimilis; YU et al. 2012), Serbia (ŽIKIĆ et al. 2012), Turkey (BEYARSLAN et al. 2005; YU et al. 2012; PAPP 2012), Turkey (BEYARSLAN et al. 2010), Ukraine (TELENGA 1936 as *B. laticeps* TELENGA; YU et al. 2012).

C o m m e n t s : This species was reported as the parasitoid of *Pissodes pini* L., *Hylobius piceus* DE GEER (Coleoptera: Curculionidae), *Plagionotus floralis* PALLAS (Coleoptera: Cerambycidae) (TOBIAS 1986; BEYARSLAN et al. 2005; PAPP 2012).

***Bracon (Glabrobracon) obscurator* NEES 1811**

D i s t r i b u t i o n i n I r a n : Iran (no locality cited) (YU et al. 2012).

D i s t r i b u t i o n o u t s i d e I r a n : Austria, Azerbaijan, Bulgaria, China, Denmark, Finland, France, Italy, Kazakhstan, Korea, Macedonia, Moldova, the Netherlands, Romania, Russia, Slovenia, Spain, Sweden, Switzerland, Tajikistan, Tunisia, former Yugoslavia (YU et al. 2012), Belgium (WESMAEL 1838; SZÉPLIGETI 1904; YU et al. 2012), Bosnia Hercegovina, Croatia (PAPP 2009b; YU et al. 2012), Cyprus, Israel, Mongolia (PAPP 2008, 2011-2012 as *B. marshalli*; YU et al. 2012), Germany (SZÉPLIGETI 1904; YU et al. 2012), Greece (PAPP 1990, 1999b, 2003, 2007; YU et al. 2012), Hungary (PAPP 2008), land (NIEZABITOWSKI 1910 as *B. kotulai* NIEZABITOWSKI; YU et al. 2012), Serbia (PAPP 2009b; ŽIKIĆ et al. 2012), Turkey (BEYARSLAN et al. 2005, 2010, 2014; YU et al. 2012), UK (SZÉPLIGETI 1904; BROAD et al. 2011; YU et al. 2012).

C o m m e n t s : This species was reported as the larval parasitoid of Cerambycidae (SAKENIN et al. 2008). It was also reported as the parasitoid of many host species, *Homoeosoma sinuellum* FABRICIUS (Lepidoptera: Phycitidae), *Epermenia fulviguttella* ZELLER (Lepidoptera: Epermemiidae), *Coleophora caespitiella* ZELLER (Lepidoptera: Coleophoridae), *Trachys pumila* GROU & LAPORTE, *T. troglodytes* GYLLENHAL (Coleoptera: Buprestidae), *Orthomicus sueturalis* GYLLENHAL, *Hylesimus fraxini* PANZER, *Ips typographus* LATREILLE (Coleoptera: Scolytidae) (BEYARSLAN et al. 2005). It was also found as parasitoid of *Trypodendron domesticum* LATREILLE and *T. signatum* FABRICIUS (Coleoptera: Curculionidae) (STANKOVIĆ et al. 2010).

***Bracon (Glabrobracon) parvulus* WESMAEL 1838**

D i s t r i b u t i o n i n I r a n : Golestan (GHAHARI & FISCHER 2011c).

D i s t r i b u t i o n o u t s i d e I r a n : Armenia, France, Georgia, Germany (YU et al. 2012; PAPP 2012), Azerbaijan, China, Finland, Italy, Latvia, Lithuania, Moldova, the Netherlands, Poland, Russia, Slovenia, Turkey, Ukraine (YU et al. 2012), Austria, Sweden (MARSHALL 1900 as *B. thomsoni*; YU et al. 2012; PAPP 2012), Belgium (WESMAEL 1838; SZÉPLIGETI 1904; YU et al. 2012), Croatia (PAPP 2009b, 2012; YU et al. 2012), Greece (PAPP 2003, 2007; YU et al. 2012), Hungary (PAPP 2008), Ireland, Romania, Serbia, Slovakia, Switzerland (PAPP 2012), Macedonia (PAPP 1998b, 2003; YU et al. 2012), Turkey (BEYARSLAN et al. 2010), UK (BROAD et al. 2011; YU et al. 2012), former Yugoslavia (PAPP 2010; YU et al. 2012; PAPP 2012).

C o m m e n t s : The following hosts were reported as hosts for this species: *Gastroidea polygoni* LINNAEUS, *G. viridula* DE GEER (Coleoptera: Chrysomelidae), *Orellia ruficanda* FABRICIUS, *Siteria lurida* (LOEW), *S. scorzonera* ROBINEAU-DISVOIDY, *Tephritis bardanae* SCHRANK, *T. pulchra* LOEW (Diptera: Tephritidae) (PAPP 2012).

***Bracon (Glabrobracon) picticornis* WESMAEL 1838**

Distribution in Iran: Iran (no locality cited) (PAPP 2012).

Distribution outside Iran: Armenia, Austria, Bohemia, Bulgaria, Denmark, England, Finland, Germany, Greece, Italy, Korea, Mongolia, the Netherlands, Romania, Slovakia, Sweden, Turkey (PAPP 2012), Czech Republic (LOZAN et al. 2010), Hungary (PAPP 2008, 2012), Serbia (ŽIKIĆ et al. 2013).

Comments: This species was reported as a parasitoid of a number of host species: *Clyteus* sp., *Plagionotus acuatius* LINNAEUS (Coleoptera: Cerambycidae), *Ernobius abietis* FABRICIUS (Coleoptera: Anobiidae), *Mompga subdivisella* (Lepidoptera: Momphidae), *Millieria dolosalis* HERRICH-SCHÄFFER (Lepidoptera: Choreutidae), *Cochylis pollidana* ZELLER (Lepidoptera: Tortricidae), *Cecidomyia salicis* SCHRANK, *Dasineura rosaria* LOEW (Diptera: Cecidomyiidae), *Nematus bipartitus* LEPELETIER, *N. caprae* LINNAEUS, *N. gallicola* WESTWOOD, *N. saliceti* FOERSTER, *N. salecis* LINNAEUS, *N. viminalis* LINNAEUS, *Pontania pedunculi* HARTIG, *P. gallarum* HARTIG, *P. proxima* LEPELETIER, *P. varia* KOPELKE, *P. vesicator* BREMI (Hymenoptera: Tenthredinidae) (PAPP 2012).

***Bracon (Glabrobracon) pineti* THOMSON 1892**

Distribution in Iran: Lorestan (GHAHARI et al. 2012b).

Distribution outside Iran: Armenia, Austria, Azerbaijan, Croatia, Finland, France, Georgia, Germany, Hungary, Kazakhstan, Lithuania, Moldova, Norway, Russia, Slovakia, Slovenia, Sweden, Switzerland, former Yugoslavia (YU et al. 2012), Serbia (ŽIKIĆ et al. 2012), Turkey (BEYARSLAN et al. 2005, 2010; YU et al. 2012).

Comments: This species was reported as a parasitoid of *Laspeyresia strobilella* L. (Lepidoptera: Tortricidae), *Ernobius abietis* FABRICIUS, *E. nigrinus* (STURM), *E. longicornis* STURM (Coleoptera: Anobiidae) (BEYARSLAN et al. 2005).

***Bracon (Glabrobracon) planinotus* TOBIAS 1957**

Distribution in Iran: Guilan (GHAHARI et al. 2012a), Kermanshah (GHAHARI et al. 2010b).

Distribution outside Iran: Kazakhstan, Russia, Ukraine (YU et al. 2012), Turkey (BEYARSLAN et al. 2005, 2010; YU et al. 2012).

***Bracon (Glabrobracon) popovi* TELENGA 1936**

Distribution in Iran: Mazandaran (GHAHARI et al. 2011a), Iran (no locality cited) (YU et al. 2012).

Distribution outside Iran: Armenia, Azerbaijan, Cyprus, Kazakhstan, Moldova, Russia, Turkmenistan (YU et al. 2012), Greece (PAPP 2007; YU et al. 2012), Mongolia (PAPP 1971 as *B. prodigiosus* PAPP; YU et al. 2012), Turkey (BEYARSLAN et al. 2002, 2005, 2010, 2014; YU et al. 2012).

***Bracon (Glabrobracon) praetermissus* MARSHALL 1885**

Distribution in Iran: Fars (LASHKARI BOD et al. 2010, 2011), Guilan (GHAHARI et al. 2012a).

Distribution outside Iran: Europe, Western and Eastern Palaearctic Region (PAPP 2012). Austria, Azerbaijan, Belgium, Czech Republic, Denmark, Finland, France, Germany, Hungary, Ireland, Italy, Kazakhstan, Lithuania, Moldova, Norway, Poland, Russia, Sweden, Switzerland, Ukraine, former Yugoslavia (YU et al. 2012), Greece (PAPP 2003 as *B. romani*), Montenegro (PAPP 1998, 2003 as *B. romani*), Slovenia (PAPP 1998, 2003 as *B. romani*; YU et al. 2012), Turkey (BEYARSLAN et al. 2005, 2010; YU et al. 2012), UK (YU et al. 2012; PAPP 2012).

Comments: Parasitoid of *Biorhiza pallida* (OLIVIER) (Hymenoptera: Cynipidae) (GHAHARI et al. 2012a). It was also reported from a number of insect hosts: *Cochylis posterans* ZELLER, *C. roseana* HAWORTH (Lepidoptera: Tortricidae), *Nepticula hanoverella* GLITZ (Lepidoptera: Nepticulidae), *Aristotelia brizella* TREITSCHKE (Lepidoptera: Gelechiidae), *Noeta pupilla* FABRICIUS (Diptera: Tephretitidae), *Biorhiza pallida* (OLIVIER) (Hymenoptera: Cynipidae), *Cephus pygmaeus* L. (Hymenoptera: Cephidae), *Orthotomicus proximus* WOOD & BRIGHT, *O. laricus* FABRICIUS, *O. suturalis* (GYLLENHAL) (Coleoptera: Scolytidae) (BEYARSLAN et al. 2005).

***Bracon (Glabrobracon) tekkensis* TELENGA 1936**

Distribution in Iran: Isfahan (GHAHARI et al. 2011b), Iran (no locality cited) (YU et al. 2012).

Distribution outside Iran: Central Asia (TOBIAS 1986), Greece (PAPP 1999a, 2007; YU et al. 2012), Hungary (PAPP 1999a; YU et al. 2011; YU et al. 2012), Macedonia (PAPP 2009b; YU et al. 2012), former Yugoslavia (YU et al. 2012), Turkey (BEYARSLAN et al. 2010, 2014; YU et al. 2012), Turkmenistan (PAPP 1999a; YU et al. 2012).

***Bracon (Glabrobracon) tschitscherini* KOKUJEV 1904**

Distribution in Iran: Golestan (GHAHARI & FISCHER 2011b), West Azarbaijan (GHAHARI & FISCHER 2011a).

Distribution outside Iran: Azerbaijan, Cyprus, Greece, Hungary, Italy, Kazakhstan, Kyrgyzstan, Russia, Tajikistan, Turkmenistan, Uzbekistan (YU et al. 2012), Israel (PAPP 1989, 2011-2012; YU et al. 2012), Turkey (BEYARSLAN et al. 2010; YU et al. 2012), Ukraine (TELENGA 1936 as *B. ochrostigma* TELENGA).

***Bracon (Glabrobracon) variator* NEES VON ESENBECK 1811**

Distribution in Iran: Guilan (GHAHARI & FISCHER 2011b), Hormozgan (AMERI et al. 2014), Iran (no locality cited) (PAPP 1966, 1967, 2012; CAPEK & HOFMANN 1997; FALLAHZADEH & SAGHAEI 2010).

Distribution outside Iran: Albania, Algeria, Armenia, Bohemia, Bulgaria, Denmark, Georgia, Jordan, Korea, Portugal, Scotland, Slovenia, Syria, Tunisia, Turkmenistan, Ukraine (PAPP 2012), China, Crimea, Finland, Middle Asia, Romania, Siberia, Slovakia, former Yugoslavia (YU et al. 2012), Austria, Sweden (FAHRINGER 1927 as *B. sueciensis* FAHRINGER; YU et al. 2012; PAPP 2012), Belgium (WESMAEL 1838; SZÉPLIGETI 1904; MAIDL 1923; YU et al. 2012), Croatia, Macedonia (PAPP 2009b, 2012), Cyprus (TELENGA 1936 as *B. meridionalis* TELENGA), Czech Republic (LOZAN et al. 2010; YU et al. 2012), France, Italy, Mongolia, the Netherlands, Russia (YU et al. 2012; PAPP 2012), Germany (SZÉPLIGETI 1904; MAIDL 1923; YU et al. 2012; PAPP 2012), Greece (PAPP 2003, 2012; LOZAN 2004), Hungary (SZÉPLIGETI 1904; MAIDL

1923; PAPP 2008, 2012; YU et al. 2012), Poland (FAHRINGER 1928 as *B. rytrensis* FAHRINGER; YU et al. 2012), Serbia (ŽIKIĆ et al. 2012, 2013; PAPP 2012), Spain (MEDINA 1894; MARTINEZ & SAEZ 1874; DOCAVO 1964; FALCÓ et al. 1987, 1993; YU et al. 2012; PAPP 2012), Switzerland (MAIDL 1923; YU et al. 2012; PAPP 2012), Turkey (GÜLER & ÇAĞATAY 2001; BEYARSLAN et al. 2005, 2010, 2014; YU et al. 2012; PAPP 2012), UK (SZÉPLIGETI 1904; MAIDL 1923; BROAD et al. 2011; YU et al. 2012; PAPP 2012).

C o m m e n t s : This species was reported as the parasitoid of a large number of insect hosts of the families Anobiidae, Bruchidae and Curculionidae (Coleoptera), Anthomyiidae, Cecidomyiidae, Tephritidae (Diptera), Cynipidae and Tenthredinidae (Hymenoptera), Coleophoridae, Gelechiidae, Lycaenidae, Nymphalidae, Geometridae, Gracillariidae, Phycitidae, Pieridae, Sesiidae and Tortricidae (Lepidoptera) (FALCÓ et al. 1993): *Platyedra subcineria* HAWORTH, *Pexicopia malvella* HÜBNER, *Mesophleps corsicellus* HERRICH-SCHÄFFER (Lepidoptera: Gelechiidae), *Hadena bicruris* HUFNAGEL (Lepidoptera: Noctuidae), *Lithocolletis mespilella* HÜBNER (Lepidoptera: Gracillariidae), *Aegeria andrenaeformis* LASPEYRES (Lepidoptera: Sesiidae), *Coleophora medelichennis* KRONE, *C. coronillae* ZELLER (Lepidoptera: Coleophoridae), *Grapholitha funebrana* TREITSCHKE, *G. Dorsana* FABRICIUS, *Barbara herrichiana* OBRAZTSOV, *Pandenus cerasana* HÜBNER, *Petrova resinella* LATREILLE, *Laspeyresia strobilella* LATREILLE, *Eucosoma cana* HAWORTH (Lepidoptera: Tortricidae), *Etiella zinckenella* TREITSCHKE, *Dioryctia abietella* DENIS & SCHIFFERMÜLLER, *Myelois cribrella* HÜBNER (Lepidoptera: Phycitidae), *Ernobius nigrinus* STURM (Coleoptera: Anobiidae), *Larinus turbinatus* GYLLENHAL, *L. Jaceae* FABRICIUS, *Pissodes validirostris* GYLLENHAL, *Baris cuprirostris* FABRICIUS, *B. laticollis* MARSY, *B. chlorisans* GERMAR, *Magdalis rufa* GERMAR, *Gynetrion tetrum* LATREILLE, *G. asellus* GRAVENHORST, *Miarus campanulae* LATREILLE, *Sitona longulus* GYLLENHAL, *Ceutorhynchus punctiger* GYLLENHAL (Coleoptera: Curculionidae), *Bruchus laticollis* BOHEMAN, *B. lentis* FRÖLICH, Bruchidae), *Pegohylemyia seneciella* (MEADE) (Diptera: Anthomyiidae), *Noeeta pupillata* (FALLÉN), *Chaetostomella cylindrica* ROBINEAU-DESVOIDY, *Tephritis leontodontis* DEGEER, *Sphenella marginata* (FALLÉN) (Diptera: Tephritidae), *Hoplocampa brevis* KLUG (Hymenoptera: Tenthredinidae) (BEYARSLAN et al. 2005).

***Bracon (Glabrobracon) variator bipartitus* (WESMAEL 1838)**

Distribution in Iran: Iran (no locality cited) (YU et al. 2012; PAPP 2012 as *B. bipartitus*).

Distribution outside Iran: Belgium, Britain, Hungary (SZÉPLIGETI 1904 as *B. bipartitus* WESMAEL; YU et al. 2012), Cyprus, France, Germany, Italy, the Netherlands, Russia, Turkmenistan (YU et al. 2012), Greece (PAPP 2003; YU et al. 2012).

***Bracon (Glabrobracon) variator maculiger* (WESMAEL 1838)**

Distribution in Iran: East Azarbaijan (RASTEGAR et al. 2012), Isfahan (GHAHARI et al. 2011b), Iran (no locality cited) (YU et al. 2012).

Distribution outside Iran: Austria, Azerbaijan, Cyprus, France, Germany, Italy, Kazakhstan, Latvia, Lithuania, Macedonia, Poland, Romania, Russia, Spain, Sweden, Tunisia, Turkey, Ukraine, former Yugoslavia (YU et al. 2012), Belgium (WESMAEL 1838 as *B. bipartitus* WESMAEL; SZÉPLIGETI 1904 as *B. maculiger* WESMAEL;

YU et al. 2012), Greece (PAPP 2003; YU et al. 2012), Hungary (SZÉPLIGETI 1904 as *B. maculiger* SZÉPLIGETI; YU et al. 2012).

***Bracon (Habrobracon) variegator* (SPINOLA 1808)**

Distribution in Iran: Hormozgan (AMERI et al. 2014), Kermanshah (GHAHARI & FISCHER 2012).

Distribution outside Iran: Afghanistan, Azerbaijan, Bulgaria, China, Cyprus, France, Ireland, Italy, Korea, Latvia, Moldova, Mongolia, Poland, Romania, Slovakia, Slovenia, Switzerland, former Yugoslavia (YU et al. 2012), Armenia, Georgia, Kazakhstan, Lithuania, Russia, Tajikistan, Turkmenistan, Ukraine (SZÉPLIGETI 1901 as *B. annulus* SZÉPLIGETI; YU et al. 2012), Austria, Tunisia (SZÉPLIGETI 1901 as *B. micros* SZÉPLIGETI; YU et al. 2012), Belgium (WESMAEL 1838; SZÉPLIGETI 1904 as *B. melanosoma* SZÉPLIGETI; YU et al. 2012), Czech Republic (LOZAN et al. 2010), Europe, USSR (PAPP 1968 as *B. (B.) variegator*) Germany (SZÉPLIGETI 1904; YU et al. 2012), Greece (PAPP 2003; YU et al. 2012), Hungary (SZÉPLIGETI 1901 as *B. annulus* SZÉPLIGETI; SZÉPLIGETI 1904 as *B. micros* SZÉPLIGETI, and *B. melanosoma* SZÉPLIGETI; PAPP 2008; YU et al. 2012), Israel (PAPP 2011-2012), Lebanon (FISCHER 1968 as *Habrobracon lineatellae* FISCHER; YU et al. 2012), Macedonia (PAPP 2009b; YU et al. 2012), Montenegro (ŽIKIĆ et al. 2013), Serbia (STANKOVIĆ et al. 2010; ŽIKIĆ et al. 2012), Spain (FALCÓ et al. 1993 as *Habrobracon variegator* SPINOLA; YU et al. 2012), Turkey (BEYARSLAN et al. 2005, 2010, 2014; YU et al. 2012), UK (SZÉPLIGETI 1904; BROAD et al. 2011; YU et al. 2012), Uzbekistan (SZÉPLIGETI 1901 as *H. annulus* SZÉPLIGETI; YU et al. 2012), entire Palaearctic species, introduced in New Zealand (TOBIAS 1986; FALCÓ et al. 1993; YU et al. 2012).

Comments: It is reported as parasitoid on a large number of host species of different families Anobiidae (Coleoptera), Coleophoridae, Gelechiidae, Gracillariidae, Oecophoridae, Phycitidae, Tortricidae, Yponomeutidae (Lepidoptera) (FALCÓ et al. 1993). It was a parasitoid of *Anarsia lineatella* ZELLER (Lepidoptera: Gelechiidae) (GHAHARI & FISCHER 2012). It was also reported as the parasitoid of a number of insect hosts: *Tortrix viridana* L., *Laspeyresia strobilella* L., *Archips rosana* L. (Lepidoptera: Tortricidae), *Recurvaria nanella* DENIS & SCHIFFERMÜLLER, *Anarsia lineatella* ZELLER, *Teleia modesta* DANILEVSKII (Lepidoptera: Gelechiidae), *Endrosia lineatella* ZELLER, *agonopterix propinqualla* TREITSCHKE (Lepidoptera: Oecophoridae), *Acrobasis obtusella* (HÜBNER), *Hyphantidium terebrellum* ZINK (Lepidoptera: Phyciyidae), *Coleophora ibipennella* ZELLER (Lepidoptera: Coleophoridae), *Lithocolletis mespilella* HÜBNER, *L. klemanella* FABRICIUS (Lepidoptera: Gracillariidae), *Yponomeuta padellus* (Lepidoptera: Yponomeutidae), *Ernobius vabietis* FABRICIUS (Coleoptera: Anobiidae) (TOBIAS 1986; BEYARSLAN et al. 2005). It was found attacking caterpillars of various lepidopteran families found on birches in Serbia (STANKOVIĆ et al. 2010).

***Bracon (Lucobracon) apricus* SCHMIEDEKNECHT 1897**

Distribution in Iran: Semnan (GHAHARI et al. 2011a).

Distribution outside Iran: Germany, Greece (PAPP 2007; YU et al. 2012), Italy, Slovenia, former Yugoslavia (YU et al. 2012).

***Bracon (Lucobracon) brevitemporis* TOBIAS 1959**

Distribution in Iran: Lorestan (GHAHARI et al. 2012b), West Azarbaijan (RASTEGAR et al. 2012).

Distribution outside Iran: Kazakhstan (TOBIAS 1986; YU et al. 2012), Turkey (BEYARSLAN et al. 2010; YU et al. 2012).

***Bracon (Lucobracon) erraticus* (WESMAEL 1838)**

Distribution in Iran: Hormozgan (AMERI et al. 2014), Iran (no locality cited) (YU et al. 2012; PAPP 2012 as var. *confinis*, and var. *superciliosus*).

Distribution outside Iran: Cosmopolitan species (TOBIAS 1986). Albania, Algeria, Armenia, Bohemia, Bulgaria, China, Denmark, Greece, the Netherlands, Portugal, Romania, Syria, Turkey (PAPP 2012), Austria, Cyprus, France, Germany, Italy, Mongolia, Slovakia, Spain, Sweden (YU et al. 2012; PAPP 2012), Bosnia Hercegovina, Finland, Ireland, Lithuania, Moldova, Poland, Slovenia, Tajikistan, Turkmenistan, UAE, former Yugoslavia (YU et al. 2012), Azerbaijan, Uzbekistan (TELENGA 1936 as *B. transcaspicus* TELENGA; YU et al. 2012), Belgium (WESMAEL 1838; SZÉPLIGETI 1904; YU et al. 2012), Croatia, Macedonia (PAPP 2009b; YU et al. 2012; PAPP 2012), Czech Republic (LOZAN et al. 2010; YU et al. 2012), Georgia, Kazakhstan (TELENGA 1936 as *B. lagodechianus* TELENGA; YU et al. 2012), Greece (PAPP 1990, 2003, 2007, 2012; YU et al. 2012), Hungary (SZÉPLIGETI 1901 as *B. similis* SZÉPLIGETI; SZÉPLIGETI 1904 as *B. ventricosus* SZÉPLIGETI; SCHULZ 1906 as *B. secernendus* SCHULZ; YU et al. 2012; PAPP 2008, 2012), Israel (PAPP 1990, 2003, 2011-2012; YU et al. 2012), Russia (TELENGA 1936 as *B. planiceps* TELENGA; YU et al. 2012; PAPP 2012), Serbia (ŽIKIĆ et al. 2012; ŽIKIĆ et al. 2012 as *B. planiceps*; PAPP 2012), Switzerland (SZÉPLIGETI 1904; YU et al. 2012; PAPP 2012), Turkey (BEYARSLAN et al. 2005, 2010, 2014; YU et al. 2012; PAPP 2012), UK (MARSHALL 1885 as *B. vectensis* MARSHALL; SZÉPLIGETI 1904; BROAD et al. 2011; YU et al. 2012; PAPP 2012), Ukraine (SZÉPLIGETI 1901 as *B. similis*; TELENGA 1936 as *B. talitzkii* TELENGA; YU et al. 2012).

Comments: This species was reported as the parasitoid of some host species belonging to Diptera and Lepidoptera including, *Phaedon cochleariae* (FABRICIUS), *Gastroidea viridula* (DE GEER), *Acheris rhombana* DENIS & SCHIFFERMÜLLER, *Pennisetia hylaeiformis* LASPEYRES (Lepidoptera: Sesiiidae) (BEYARSLAN et al. 2005). It was also reported as the parasitoid of *Metzneria lappella* L. (Lepidoptera: Gelechiidae), *Chaetostomella cylindrica* ROBINEAU-DESVOIDY, *Urophora eriolepidis* LOEW, *Terellia serratulae* L. (Diptera: Tephritidae) (TOBIAS 1986).

***Bracon (Lucobracon) erraticus superciliosus* (WESMAEL 1838)**

Distribution in Iran: Qazvin (GHAHARI et al. 2011c), Iran (no locality cited) (YU et al. 2012).

Distribution outside Iran: Austria, Cyprus, Greece, Hungary, Mongolia, Serbia, former Yugoslavia (YU et al. 2012), Belgium (WESMAEL 1838; YU et al. 2012), Macedonia (PAPP 2009b; YU et al. 2012).

***Bracon (Lucobracon) femoralis* BRULLÉ 1832**

Distribution in Iran: Mazandaran (GHAHARI et al. 2011a), Iran (no locality cited) (YU et al. 2012).

Distribution outside Iran: Algeria, Azerbaijan, Bulgaria, Cyprus, Georgia, Gibraltar, Montenegro, Switzerland, Tunisia, Turkmenistan, Uzbekistan, former Yugoslavia (YU et al. 2012), Greece (SZÉPLIGETI 1904 as *Vipio femoralis* BRULLÉ; PAPP 1999b, 2007; YU et al. 2012), Hungary (MARSHALL 1897 as *B. xyustus* MARSHALL; SZÉPLIGETI 1904; YU et al. 2012), Israel, Syria (SZÉPLIGETI 1901 as *B. palaestnensis* SZÉPLIGETI; YU et al. 2012), Macedonia (PAPP 2009b; YU et al. 2012), Serbia (ŽIKIĆ et al. 2012), Spain (MARSHALL 1897 as *B. xyustus* MARSHALL; SZÉPLIGETI 1901 as *B. palaestnensis* SZÉPLIGETI; SZÉPLIGETI 1904; YU et al. 2012), Turkey (BAYARSLAN et al. 2010; BEYARSLAN & ÇETIN ERDOĞAN 2012; YU et al. 2012).

***Bracon (Lucobracon) fortipes* (WESMAEL 1838)**

Distribution in Iran: Hormozgan (AMERI et al. 2014), Kermanshah (GHAHARI & FISCHER 2012), Iran (no locality cited) (PAPP 2012).

Distribution outside Iran: Algeria, Armenia, Poland, Russia, Slovenia, Switzerland, Tajikistan, Turkmenistan, Ukraine, Uzbekistan, former Yugoslavia (YU et al. 2012), Austria, Mongolia, Portugal, Spain, Sweden (PAPP 2012), Azerbaijan (SZÉPLIGETI 1901, 1904 as *B. semirugosus* SZÉPLIGETI; YU et al. 2012), Balkan Peninsula (PAPP 2003), Belgium (WESMAEL 1838; SZÉPLIGETI 1904; YU et al. 2012), Croatia, Bulgaria, France, Italy, Kazakhstan, Korea Tunisia (YU et al. 2012; PAPP 2012), Cyprus, Israel (PAPP 2003, 2011-2012; YU et al. 2012), Germany (SZÉPLIGETI 1904; YU et al. 2012; PAPP 2012), Greece (PAPP 2003; YU et al. 2012; PAPP 2012), Hungary (SZÉPLIGETI 1904 as *B. semirugosus*; YU et al. 2012; PAPP 2008, 2012), Serbia (ŽIKIĆ et al. 2012; PAPP 2012), Turkey (PAPP 2003, 2011-2012, 2012; BEYARSLAN et al. 2005, 2010, 2014; BEYARSLAN & ÇETIN ERDOĞAN 2012; YU et al. 2012).

Comments: Parasitoid of *Sphaeroptera jugoslavica* OBENBERGER (Coleoptera: Buprestidae), *Lixus anguinus* LINNAEUS (Coleoptera: Curculionidae), *Plagionotus floralis* LINNAEUS (Coleoptera: Cerambycidae), *Dyspessa ulula* BORKHAUSEN (Lepidoptera: Cossidae), *Bembecia scopigera* SCOPOLI (Lepidoptera: Sesiidae), *Gortyna xanthenes* GERMAR (Lepidoptera: Noctuidae) (PAPP 2012).

***Bracon (Lucobracon) grandiceps* (THOMSON 1892)**

Distribution in Iran: Lorestan (GHAHARI et al. 2012b), Semnan (NADERIAN et al. 2012).

Distribution outside Iran: Austria, Croatia, Finland, France, Germany, Greece, Italy, Mongolia, Poland, Russia, Slovenia, Sweden, former Yugoslavia (YU et al. 2012), England, Scotland (BROAD et al. 2011), Hungary (PAPP 2008; YU et al. 2012), Macedonia (PAPP 2009b; YU et al. 2012), Montenegro (PAPP 2009b), Serbia (PAPP 2009b; ŽIKIĆ et al. 2012), Switzerland (SZÉPLIGETI 1904), Turkey (BEYARSLAN et al. 2005, 2010, 2014; YU et al. 2012).

***Bracon (Lucobracon) guttiger* WESMAEL 1838**

Distribution in Iran: Hamadan, Zanjan (GHAHARI et al. 2010b).

Distribution outside Iran: Armenia, Bohemia, Denmark (PAPP 2012), Austria, France, Latvia, Lithuania, Moldova, Mongolia, Poland, Russia, Slovenia, Sweden (YU et al. 2012), Belgium (WESMAEL 1838; SZÉPLIGETI 1904; YU et al. 2012), Finland, Germany, Italy, the Netherlands (YU et al. 2012; PAPP 2012), Hungary (SZÉPLIGETI 1904; PAPP 2012), Switzerland (SZÉPLIGETI 1904), Turkey (PAPP 2012;

BEYARSLAN et al. 2014), UK (SZÉPLIGETI 1904; YU et al. 2012; PAPP 2012), Western Europe (TOBIAS 1986).

C o m m e n t s : This species was reported as the parasitoid of *Phaedon cochleariae* FABRICIUS, *Gastroidea viridula* DE GEER, *Phyllatreta nomorum* LATREILLE (Coleoptera: Chrysomelidae), *Coleophora laricella* HÜBNER, *Coleophora lutipennella* ZELLER (Lepidoptera: Coleophoridae) (TOBIAS 1986; PAPP 2012).

***Bracon (Lucobracon) humidus* TOBIAS 1976**

D i s t r i b u t i o n i n I r a n : Guilan (GHAHARI et al. 2012; AMERI et al. 2014).

D i s t r i b u t i o n o u t s i d e I r a n : Black Sea coast of Caucasus (TOBIAS 1995), Cyprus, Israel, Kazakhstan, Switzerland (YU et al. 2012), Turkey (BEYARSLAN et al. 2005, 2010, 2014; YU et al. 2012).

***Bracon (Lucobracon) larvicida* WESMAEL 1838**

D i s t r i b u t i o n i n I r a n : Golestan (GHAHARI & FISCHER 2011c), Lorestan (GHAHARI et al. 2012b).

D i s t r i b u t i o n o u t s i d e I r a n : Armenia, Austria, Azerbaijan, France, Kazakhstan, Moldova, Mongolia, Poland, Russia, Slovenia, Ukraine, former Yugoslavia (YU et al. 2012), Belgium (WESMAEL 1838; SZÉPLIGETI 1904; YU et al. 2012), Bulgaria, Sweden (PAPP 2012), Croatia, Germany, Hungary, Italy, Romania (YU et al. 2012; PAPP 2012), Czech Republic (LOZAN et al. 2010; YU et al. 2012), Greece (PAPP 2007, 2012; YU et al. 2012), Serbia (ŽIKIĆ et al. 2012; PAPP 2012), Turkey (BEYARSLAN et al. 2005; YU et al. 2012), UK (SZÉPLIGETI 1904; BROAD et al. 2011; YU et al. 2012).

***Bracon (Lucobracon) meyeri* TELENGA 1936**

D i s t r i b u t i o n i n I r a n : Guilan (GHAHARI et al. 2012a), Khorasan (SAMIN et al. 2011).

D i s t r i b u t i o n o u t s i d e I r a n : Kazakhstan (TOBIAS 1986; YU et al. 2012), Moldova, Russia (YU et al. 2012), Mongolia (PAPP 1971 as *B. consternatus* PAPP; TOBIAS 1986; YU et al. 2012), Turkey (BEYARSLAN et al. 2005, 2010; YU et al. 2012).

***Bracon (Lucobracon) punctithorax* TOBIAS 1959**

D i s t r i b u t i o n i n I r a n : Kermanshah (GHAHARI & FISCHER 2012).

D i s t r i b u t i o n o u t s i d e I r a n : Kazakhstan (TOBIAS 1986; YU et al. 2012), Turkey (BEYARSLAN et al. 2005, 2010; YU et al. 2012).

***Bracon (Lucobracon) sphaerocephalus* SZÉPLIGETI 1901**

D i s t r i b u t i o n i n I r a n : Iran (no locality cited) (YU et al. 2012).

D i s t r i b u t i o n o u t s i d e I r a n : Austria, Bulgaria, France, Germany, Italy, Mongolia, Russia, Serbia, Montenegro, Slovenia, Switzerland, former Yugoslavia (YU et al. 2012), Bosnia Hercegovina, Macedonia (PAPP 2009b; YU et al. 2012), Greece (PAPP 1990, 1999b, 2003; YU et al. 2012), Hungary (SZÉPLIGETI 1904; YU et al. 2012), Turkey (BEYARSLAN et al. 2010), UK (BROAD et al. 2011; YU et al. 2012).

***Bracon (Leucobracon) suchorukovi* (TELENGA 1936)**

Distribution in Iran: Guilan (SAKENIN et al. 2012; GHAHARI et al. 2012a).

Distribution outside Iran: Armenia, Austria, Azerbaijan, Kazakhstan, Lithuania, Moldova, Mongolia, Russia, Ukraine (YU et al. 2012), Turkey (BEYARSLAN et al. 2005, 2010; YU et al. 2012).

***Bracon (Lucobracon) thuringiacus* (SCHMIDEKNECHT 1896)**

Distribution in Iran: Lorestan (GHAHARI et al. 2012b), West Azarbaijan (RASTEGAR et al. 2012).

Distribution outside Iran: England (BROAD et al. 2011), Germany (SZÉPLIGETI 1904; YU et al. 2012), Italy, former Yugoslavia (YU et al. 2012), Serbia (ŽIKIĆ et al. 2012), Turkey (BEYARSLAN et al. 2005, 2010, 2014; YU et al. 2012).

***Bracon (Lucobracon) triangularis* (NEES VON ESENBECK 1834)**

Distribution in Iran: Kermanshah (GHAHARI & FISCHER 2012).

Distribution outside Iran: Austria, Bulgaria, Czech Republic, Finland, Hungary, Italy, Poland, Slovenia, Switzerland, Turkey, former Yugoslavia (YU et al. 2012), Caucasus, Central Asia, Kazakhstan, Western Europe, Mongolia (TOBIAS 1986), Germany (SZÉPLIGETI 1904; YU et al. 2012), Serbia (ŽIKIĆ et al. 2012), Turkey (BEYARSLAN et al. 2005, 2010, 2014; BEYARSLAN & ÇETIN ERDOĞAN 2012), UK (SZÉPLIGETI 1904; BROAD et al. 2011; YU et al. 2012).

Comments: Parasitoid of *Aegeria tipuliformis* (CLERCK) (Lepidoptera: Sesiidae) (TOBIAS 1986; BEYARSLAN et al. 2005).

***Bracon (Orthobracon) exhilarator* (NEES VON ESENBECK 1834)**

Distribution in Iran: Hormozgan (AMERI et al. 2014), Kermanshah (GHAHARI & FISCHER 2012).

Distribution outside Iran: Armenia, Bohemia, Bulgaria, Denmark, Georgia, Romania, Slovakia (PAPP 2012), Austria, Belgium, Finland, France, Germany, Italy, Korea, Mongolia, the Netherlands, Norway, Russia, Sweden, Switzerland, UK (YU et al. 2012; PAPP 2012), China, Cyprus, Kazakhstan, Latvia, Moldova, Poland, Slovenia, Ukraine, former Yugoslavia (YU et al. 2012), Czech Republic (LOZAN et al. 2010; YU et al. 2012), Hungary (PAPP 2008; YU et al. 2012), Serbia (ŽIKIĆ et al. 2012; YU et al. 2012), Turkey (BEYARSLAN et al. 2005, 2010; BEYARSLAN & ÇETIN ERDOĞAN 2012; YU et al. 2012; PAPP 2012).

Comments: Parasitoid of *Apion* sp. (Coleoptera: Curculionidae) (GHAHARI & FISCHER 2012). It was also reported as the parasitoid of *Aclaris rhombana* f. *ciliana* HÜBNER (Lepidoptera: Tortricidae), *Apion hookeri* KIRBY (Coleoptera: Curculionidae), *Amaurosoma* sp. (Diptera: Scataphagidae) (BEYARSLAN et al. 2005). It was also reported as a parasitoid of ?*Omphalapion hookeri* KIRBY (Coleoptera: Curculionidae), ?*Aclaris rhombana* DENIS & SCHIFFERMÜLLER (Lepidoptera: Tortricidae), ?*Nanua* sp. (Diptera: Scatophagidae), ?*Platyptera poeciloptera* SCHRANK (Diptera: Tephretidae) (PAPP 2012).

***Bracon (Orthobracon) persiangulfensis* AMERI, BEYARSLAN & TALEBI 2014**

Distribution in Iran: Hormozgan (AMERI et al. 2014).

Distribution outside Iran: Endemic to Iran (AMERI et al. 2014).

***Bracon (Orthobracon) subcylindricus* (WESMAEL 1838)**

Distribution in Iran: Iran (no locality cited) (PAPP 2012).

Distribution outside Iran: Belgium (WESMAEL 1838 as *Braco subcylindricus*; YU et al. 2012), England (BROAD et al. 2011; YU et al. 2012), France, Italy, Poland (YU et al. 2012), Serbia (ŽIKIĆ et al. 2012), Ukraine (VOJNORSKAJA-KRIEGER 1929 as *Baryproctus niger*; YU et al. 2012).

***Bracon (Osculobracon) osculator* NEES VON ESENBECK 1811**

Distribution in Iran: Ardabil (GHAHARI & FISCHER 2011b), East Azarbaijan (GHAHARI & FISCHER 2011a), Qazvin (GHAHARI et al. 2011c), Iran (no locality cited) (PAPP 2012 as var. *temporalis*).

Distribution outside Iran: Afghanistan, Azerbaijan, Bosnia Hercegovina, Cyprus, Georgia, Iraq, Ireland, Israel, Kazakhstan, Latvia, Lithuania, Moldova, Norway, Poland, Slovenia, Turkmenistan, Ukraine, former Yugoslavia (TOBIAS 1986; YU et al. 2012), Armenia, Bulgaria, England, Liechtenstein, Portugal, Slovakia, Turkey (PAPP 2012), Austria, Denmark, Finland, France, Greece, Italy, Korea, Mongolia, the Netherlands, Romania, Russia, (TOBIAS 1986; YU et al. 2012; PAPP 2012), Belgium, Germany, Sweden (SZÉPLIGETI 1904; TOBIAS 1986; YU et al. 2012; PAPP 2012), Croatia, Macedonia (TOBIAS 1986; PAPP 2009b; YU et al. 2012; PAPP 2012), Czech Republic (TOBIAS 1986; LOZAN et al. 2010; YU et al. 2012), Hungary (SZÉPLIGETI 1901 as *B. minutes* SZÉPLIGETI; SZÉPLIGETI 1904; TOBIAS 1986; YU et al. 2012; PAPP 2008, 2012), Serbia (TOBIAS 1986; YU et al. 2012; ŽIKIĆ et al. 2012; PAPP 2012), Spain (DOCAVO 1962, 1964; FALCÓ et al. 1993; TOBIAS 1986; YU et al. 2012; PAPP 2012), Switzerland (SZÉPLIGETI 1901 as *B. minutes* SZÉPLIGETI; TOBIAS 1986; YU et al. 2012; PAPP 2012), Turkey (TOBIAS 1986; BEYARSLAN et al. 2005, 2010; YU et al. 2012; PAPP 2012), UK (TOBIAS 1986; BROAD et al. 2011; YU et al. 2012).

Comments: This species was reported as parasitoid of about 20 species of the genus *Coleophora* (Lepidoptera: Coleophoridae) (TOBIAS 1986; FALCÓ et al. 1993; BEYARSLAN et al. 2005). It was also reported on some host species of Momphidae and Tortricidae (Lepidoptera) (FALCÓ et al. 1993).

***Bracon (Palpibracon) delibator* HALIDAY 1833**

Distribution in Iran: Ilam (GHAHARI et al. 2011d).

Distribution outside Iran: Algeria, Armenia, Bulgaria, Canada, Czech Republic, Greece, Romania, Slovakia, Syria, USA (PAPP 2012), Austria, Azerbaijan, China, Cyprus, Denmark, Finland, Ireland, Kazakhstan, Latvia, Lithuania, Moldova, Poland, Russia, Slovenia, Turkmenistan, Ukraine, former Yugoslavia (YU et al. 2012), Belgium (WESMAEL 1838 as *Bracon anthracinus* NEES; SZÉPLIGETI 1904 as *B. anthracinus* NEES; YU et al. 2012), Bosnia Herzegovina, Croatia, Macedonia (PAPP 2009b, 2012; YU et al. 2012), France, Italy, Korea, Mongolia, Sweden, Ukraine (YU et al. 2012), Greece (PAPP 1990, 2003, 2007, 2012; YU et al. 2012), Hungary (PAPP 2008, 2012; YU et al. 2012), Israel (PAPP 2011-2012), Serbia (PAPP 2009b, 2010, 2012; ŽIKIĆ et al. 2012), Spain (DOCAVO 1964; FALCÓ et al. 1993 as *B. anthracinus*; YU et al. 2012; PAPP 2012), Germany, Switzerland (SZÉPLIGETI 1904 as *B. anthracinus* SZÉPLIGETI; YU et al. 2012; PAPP 2012), Turkey (BEYARSLAN et al. 2010, 2014; YU et al. 2012), UK

(SZÉPLIGETI 1904 as *B. anthracinus* SZÉPLIGETI; BROAD et al. 2011; YU et al. 2012; PAPP 2012).

C o m m e n t s : It was reported a parasitoid of a number of host species of the families Curculionidae (Coleoptera): *Centrohynchus campanula* FABRICIUS, *Hylobius piceus* DEGEER, *Miarus campanulae* LINNAEUS, Tephritidae (Diptera): *Terellia serratulae* LINNAEUS, *Urophora cuspidate* MEIGEN, Tortricidae (Lepidoptera): *Cydia strobiliella* LINNAEUS (FALCÓ et al. 1993; PAPP 2012), Apionidae (Coleoptera): *Omphalapion budderbergi* (BEDEL), Phalacridae (Coleoptera): *Olibrus aeneus* FABRICIUS (PAPP 2012).

***Bracon (Pigeria) piger* WESMAEL 1838**

D i s t r i b u t i o n i n I r a n : Guilan (GHAHARI et al. 2012), Hormozgan (AMERI et al. 2014), Mazandaran (GHAHARI & FISCHER 2011b; SAKENIN et al. 2012).

D i s t r i b u t i o n o u t s i d e I r a n : Holarctic (FALCÓ et al. 1993). Afghanistan, Albania, Algeria, Azerbaijan, Canary Islands, China, Cyprus, Egypt, Finland, Georgia, Germany, India, Italy, Macedonia, Moldova, Montenegro, the Netherlands, Portugal, Russia, Saudi Arabia, Serbia, Sweden, Switzerland, Syria, Tajikistan, Tunisia, Ukraine, Uzbekistan, former Yugoslavia (YU et al. 2012), Armenia, Austria, Bohemia, Bulgaria (PAPP 2012), Belgium (WESMAEL 1838; SZÉPLIGETI 1904; YU et al. 2012), Croatia (PAPP 2009b, 2012; YU et al. 2012), France, Romania (SZÉPLIGETI 1901 as *B. rotundatus* SZÉPLIGETI; YU et al. 2012), Greece (SZÉPLIGETI 1904 as *B. rotundulus*; PAPP 1990, 1999b, 2003; YU et al. 2012; PAPP 2012), Hungary (SZÉPLIGETI 1901, 1904 as *B. rotundatus*; YU et al. 2012; PAPP 2008, 2012), Israel (PAPP 2011-2012; YU et al. 2012), Japan (WALKER 1874 as *B. semiluteus* WALKER), Kazakhstan, Turkmenistan (SZÉPLIGETI 1904 as *B. rotundulus* SZÉPLIGETI; YU et al. 2012), Lebanon (PAPP 2011-2012, 2012), Mongolia (SZÉPLIGETI 1904 as *B. rotundulus* SZÉPLIGETI; TELENGA 1936 as *B. ornatulus* TELENGA; YU et al. 2012; PAPP 2012), Poland (SZÉPLIGETI 1901, 1904 as *B. rotundatus* SZÉPLIGETI), Spain (PAPP 1966, 2012; SHENEFELT 1978; TOBIAS 1986; FALCÓ et al. 1993 as *Piger pigeria* WESMAEL; YU et al. 2012), Turkey (BEYARSLAN et al. 2005 as *Pigeria piger* WESMAEL; BEYARSLAN et al. 2010; PAPP 2011-2012, 2012; YU et al. 2012), UK (BROAD et al. 2011; YU et al. 2012; PAPP 2012).

C o m m e n t s : This species was reported as the parasitoid of *Etiella zinckenella* (Treitschke) (Lepidoptera: Phycitidae), *Cochylis epilinaana* DUPONCHEL, *Cnephasia longana* HAWORTH (Lepidoptera: Tortricidae) (BEYARSLAN et al. 2005; PAPP 2012), and of *Bruchidius villosus* (FABRICIUS), *B. lividimanus* GYLLENHAL (Coleoptera: Bruchidae), *Pissodes validirostris* SAHLBERG & SAHLBERG (Coleoptera: Curculionidae), *Cidia nigricana* FABRICIUS (Lepidoptera: Tortricidae), *Cochylis epilinaana* DUPONCHEL (Lepidoptera: Cochidae), *Heliothis peltigera* DENIS & SCHIFFERMÜLLER (Lepidoptera: Noctuidae) (PAPP 2012). It was also reported as a hyperparasitoid of *Eupelmes annulatus* NEES, *E. muelleri* RUSCHKA (Hymenoptera: Eupelmidae), *Eurytoma appendigaster* SWEDERUS (Hymenoptera: Eurytomidae), *Scambus elegans* WOLDSDET (Hymenoptera: Ichneumonidae) (PAPP 2012).

***Bracon (Rostrobracon) urinator* (FABRICIUS 1798)**

D i s t r i b u t i o n i n I r a n : Golestan (GHAHARI & FISCHER 2011c), Mazandaran (GHAHARI et al. 2010a; GHAHARI & FISCHER 2011b), Iran (no locality cited) (TELENGA 1936; SHENEFELT 1978; TOBIAS 1995; FALLAHZADEH & SAGHAEI 2010).

Distribution outside Iran: Palaearctic and Indo-Australian Pacific species (FALCÓ et al. 1993). Albania, Austria, France, Germany, Italy, the Netherlands, Portugal, Siberia, Tajikistan, Tunisia (SHENEFELT 1978; TOBIAS 1995), Asia Minor, Central Asia, North Africa, Siberia (TOBIAS 1986), Belgium (WESMAEL 1838; SHENEFELT 1978; TOBIAS 1995), Caucasus (SHENEFELT 1978; TOBIAS 1986; TOBIAS 1995), China, India, Mongolia (SHENEFELT 1978; TOBIAS 1986; TOBIAS 1995), Croatia (PAPP 2009b), Cyprus (PAPP 1990, 1998), Greece (PAPP 1990, 1998, 2007; SHENEFELT 1978; TOBIAS 1995), Hungary (SHENEFELT 1978; TOBIAS 1995; PAPP 2008), Israel (PAPP 1970, 1989, 2011-2012), Kazakhstan, Russia (SHENEFELT 1978; TOBIAS 1986; TOBIAS 1995), Serbia (ŽIKIĆ et al. 2010, 2012), Spain (CEBALLOS 1956; DOCAVO 1964; PAPP 1962; SHENEFELT 1978; FALCÓ et al. 1993; TOBIAS 1995), Syria (SZÉPLIGETI 1904; MAIDL 1923; SHENEFELT 1978; TOBIAS 1995), Turkey (SHENEFELT 1978; TOBIAS 1995; BEYARSLAN & INANÇ 1995; BEYARSLAN et al. 2002; BEYARSLAN et al. 2005, 2010, 2014; GÜLER & ÇAĞATAY 2007).

Comments: It was reported as the parasitoid of a number of host species of the families Curculionidae (Coleoptera), Tephritidae (Diptera), Gelechiidae (Lepidoptera) and Chloridea sp. (Hemiptera, Miridae) (FALCÓN et al. 1993). It was also reported on *Rhyocyllus conicus* FRÖLICH, *R. latirostris* FABRICIUS, *Larinus sturnus* (SCHALLER), *L. saussureae* MARSCA (Coleoptera: Curculionidae), *Tephritis pulchra* LOEW (Diptera: Tephritidae) (TOBIAS 1986; BEYARSLAN et al. 2005). It was also reported obviously from other larvae in capitula of Compositae (TOBIAS 1986).

Genus *Habrobracon* ASHMEAD 1895

***Habrobracon concolorans* (MARSHALL 1900)**

Distribution in Iran: Fars (LASHKARI BOD et al. 2011 as *H. nigricans* SZÉPLIGETI), Hormozgan (AMERI et al. 2014 as *B. (Habrobracon) nigricans* (SZÉPLIGETI)), Iran (no locality cited) (SZÉPLIGETI 1901 as *H. nigricans* SZÉPLIGETI; FALLAHZADEH & SAGHAEI 2010; YU et al. 2012).

Distribution outside Iran: Armenia, Azerbaijan, Bulgaria, Croatia, Czech Republic, Georgia, Greece, Kyrgyzstan, Lithuania, Moldova, Poland, Russia, Tunisia, Turkmenistan (SZÉPLIGETI 1901 as *H. nigricans*; YU et al. 2012), Caucasus, Central Asia, Pacific Coastal region (TOBIAS 1986 as *Bracon nigricans* SZÉPLIGETI), China, Mongolia (SZÉPLIGETI 1901 as *H. nigricans* SZÉPLIGETI; TELENGA 1936 as *Habrobracon mongolicus* TELENGA; TOBIAS 1986 as *Bracon mongolicus* TELENGA, and *Bracon nigricans* SZÉPLIGETI; YU et al. 2012), *Ciscaucasia* (TOBIAS 1986 as *B. mongolicus*), Denmark, Romania (YU et al. 2012), Hungary (THOMSON 1892 as *Bracon concolor* THOMSON; SZÉPLIGETI 1904 as *Habrobracon concolor* THOMSON, and *H. nigricans* SZÉPLIGETI; TOBIAS 1986 as *Bracon nigricans*; PAPP 2008; YU et al. 2012), Kazakhstan (SZÉPLIGETI 1901 as *H. nigricans*; TOBIAS 1986 as *B. mongolicus*, and *Bracon nigricans*; YU et al. 2012), Scotland, Ireland (BROAD et al. 2011 as *Bracon concolorans* MARSHALL), Sweden (THOMSON 1892 as *Bracon concolor*; SZÉPLIGETI 1904 as *Habrobracon concolor* THOMSON; YU et al. 2012), Turkey (SZÉPLIGETI 1901 as *H. nigricans* SZÉPLIGETI; BEYARSLAN et al. 2005, 2010 as *Bracon nigricans* SZÉPLIGETI; YU et al. 2012).

Comments: This species was reported as a parasitoid of a number of insect pests: *Etiella zinckenella* TREITSCHKLE (Lepidoptera: Gelechiidae), *Cnebhasia sedana* HÜBNER (Lepidoptera: Tortricidae) (BEYARSLAN et al. 2005).

***Habrobracon crassicornis* (THOMSON 1894)**

Distribution in Iran: Ilam (GHAHARI et al. 2011d).

Distribution outside Iran: Armenia, Bulgaria, Cyprus, Denmark, France, Georgia, Hungary, Italy, Jordan, Macedonia, Romania, Spain, Tunisia, Turkey, Turkmenistan, former Yugoslavia (YU et al. 2012), Greece (PAPP 2007; YU et al. 2012), Israel (PAPP 2011-2012), Sweden (SZÉPLIGETI 1904; YU et al. 2012), UK (BROAD et al. 2011 as *B. crassicornis* THOMSON; YU et al. 2012).

***Habrobracon excisus* TOBIAS 1957**

Distribution in Iran: Iran (no locality cited) (HAESSELBARTH 1983; FALLAHZADEH & SAGHAEI 2010; YU et al. 2012).

Distribution outside Iran: Kazakhstan, Mongolia (TOBIAS 1986 as *B. excisus* TOBIAS; YU et al. 2012), Uzbekistan (YU et al. 2012).

***Habrobracon hebetor* (SAY 1836)**

Distribution in Iran: Bushehr (KARAMPOUR & FASIHI 2004 as *B. brevicornis* WESMAEL), East Azarbaijan (MODARRES AWAL 1997; GHAHARI et al. 2011a), Fars (LASHKARI BOD et al. 2011), Hormozgan (AMERI et al. 2014 as *Bracon (Habrobracon) hebetor*), Ilam (GHARALI 2004 as *Bracon brevicornis* WESMAEL), Isfahan (BAGHERI & NEMATOLLAHI 2006; BAGHERI & NASR ISFAHANI 2010 as *Bracon hebetor* SAY; AFIUNIZADEH ISFAHANI & KARIMZADEH ISFAHANI 2010; AFIUNIZADEH ISFAHANI et al. 2010; SOBHANI et al. 2012), Kerman, Tehran, Khuzestan (MODARRES AWAL 1997), Kermanshah (NOORI 1994), Qom (NOROUZI et al. 2009), Semnan (DEZIANIAN & JALALI 2004; DEZIANIAN & QUICKE 2006 DEZIANIAN & JALALI 2004 as *B. brevicornis* WESMAEL), Tehran (GOLIZADEH 2008; KISHANI FARAHANI et al. 2008, 2010), West Azarbaijan (MODARRES AWAL 1997; AKBARZADEH SHOUKAT et al. 2008; ADLDOOST 2010), Iran (no locality cited) (FALLAHZADEH & SAGHAEI 2010).

Distribution outside Iran: Cosmopolitan species (TOBIAS 1986 as *Bracon hebetor* SAY; FALCÓ et al. 1993; PAPP 2011-2012). Ethiopia, Western and Eastern Palaearctic, Introduced into USA, Canada, China, Fiji Islands, Mexico (YU et al. 2012), Belgium (WESMAEL 1838 as *B. brevicornis*; SZÉPLIGETI 1904), China, Japan, Korea (WATANABE 1935 as *Habrobracon pectinophorae* WATANABE), Czech Republic (LOZAN et al. 2010 as *Bracon hebetor*), Greece (SZÉPLIGETI 1901 as *H. vernalis* SZÉPLIGETI; PAPP 2007), Hungary (SZÉPLIGETI 1901 as *H. vernalis* SZÉPLIGETI; SZÉPLIGETI 1904 as *H. vernalis* SZÉPLIGETI, and as *H. brevicornis* WESMAEL; PAPP 2008), India, Vietnam (CHERIAN 1929 as *H. serinopae* (CHERIAN)), Italy (GOIDANISH 1934 as *H. tortricidarum* GOIDANISH), Mongolia, Romania (SZÉPLIGETI 1901 as *H. vernalis* SZÉPLIGETI), Mozambique (VIERECK 1911 as *H. beneficentior* VIERECK), Hawaii (BEARDSLEY 1961 as *Bracon hebetor* SAY), Serbia (BELOKOBYSKIJ & ŽIKIĆ 2009 as *B. hebetor*; STANKOVIĆ et al. 2010 as *B. hebetor*; ŽIKIĆ et al. 2012, 2013 as *B. brevicornis*, and *B. hebetor*), Spain (DOCAVO 1984; FALCÓ et al. 1987, 1993), Tajikistan (SZÉPLIGETI 1901 as *H. vernalis* SZÉPLIGETI; TELENGA 1936 as *H. flavus* TELENGA), Turkey (BEYARSLAN et al. 2010 as *B. hebetor*; BEYARSLAN et al. 2014), Turkmenistan,

Uzbekistan (TELENGA 1936 as *H. turkestanicus* TELENGA), UK (SZÉPLIGETI 1904 as *H. brevicornis* WESMAEL; BROAD et al. 2011 as *Bracon hebetor* SAY), USA (SAY 1835 as *B. dorsator* SAY; ASHMEAD 1889 as *B. juglandis* ASHMEAD).

C o m m e n t s : This species was reported attacking caterpillars of various lepidopteran families (FALCÓ et al. 1993; STANKOVIĆ et al. 2010). They are reported as parasitoid of potato tuber moth *Phthorimaea operculella* (ZELLER) (Lepidoptera: Gelechiidae) (DEZIANIAN & JALALI 2004), safflower shoot fly, *Acanthiophilus helianthi* ROSSI (Diptera: Tephritidae) (BAGHERI & NEMATOLLAHI 2006), potato tuber moth, *Phthorimaea operculella* ZELLER (Lepidoptera: Gelechiidae) (DEZIANIAN & QUICKE 2006), *Plutella xylostella* (Lepidoptera: Plutellidae) (GOLIZADEH 2008; AFIUNIZADEH ISFAHANI & KARIMZADEH ISFAHANI 2010; AFIUNIZADEH ISFAHANI et al. 2010), *Ectomyelois ceratoniae* (ZELLER) (Lepidoptera: Pyralidae: Phycitinae) (NOROUZI et al. 2009; SOBHANI et al. 2012), *Galleria mellonella* (L.) (FOURUZAN et al. 2010; DWECK et al. 2010), *Helicoverpa armigera* (HÜBNER) (FAAL-MOHAMAD ALI et al. 2010), *Ectomyelois ceratoniae* ZELLER (Lepidoptera: Pyralidae) (KISHANI FARAHANI et al. 2008, 2010). Also, this species is an idiobiont and cosmopolitan parasitoid (VAN ACHTERBERG & POLASZEK 1996; GUNDUZ & GULEL 2005). Larval parasitoid of *Lobesia botrana* DENIS & SCHIFFERMÜLLER (Lepidoptera: Tortricidae) (AKBARZADEH SHOUKAT et al. 2008). ALDOOST (2010) reported this species as the parasitoid of the larvae of the legume pod borer *Heliothis virescens* (HUFNAGEL) (Lepidoptera: Noctuidae). It was also reported as the larval parasitoid of *Batrachedra amydraula* MEYRICK (Lepidoptera: Batrachedridae) (BEHDAD 1991; MODARRES AWAL 1997; KARAMPOUR & FASIHI 2004), as well as *Sesamia cretica* LEDERER, *S. monagrioides botanephaga* LEFEBVRE and *Earias insulana* BOISDUVAL (Lepidoptera: Noctuidae) (KHANJANI 2004; MODARRES AWAL 1997), *Spodoptera exigua* (HÜBNER) (Lepidoptera: Noctuidae) (MODARRES AWAL 1997), *Plodia interpunctella* (HÜBNER) (Lepidoptera: Pyralidae), *Heliothis armigera* (HÜBNER) (Lepidoptera: Noctuidae) (MODARRES AWAL 1997; SHOJAI 1998). It was also reported as the parasitoid of *Nephantis serinopa* MEYRICK (Lepidoptera: Xylorictidae) (CHERIAN 1929). TOBIAS (1986) has reported this species as the parasitoid of store house parasites *Ephestia* sp., *Plodia* sp. and *Galleria* sp.; in the field it parasitizes many hosts, mostly lepidopterans of different families, *Ostrinia nubilalis* HÜBNER, *Pexicopia malvella* HÜBNER, *Etiella zinckenella* TREITSCHKE, *Helicoverpa armigera* HÜBNER, *Heliothis peltigera* DENIS & SCHIFFERMÜLLER and many others. MILANOS (2005) recorded *Habrobracon hebetor* from many larvae of Cambidae, Gelechiidae, Noctuidae and Tortricidae (Lepidoptera). It is an important natural enemy of Indian meal moth *Plodia interpunctella* (Lepidoptera: Pyralidae), which is very common as pest of stored products in different parts of the world (STANKOVIĆ et al. 2010). In Hawaii, this species was reported as a parasitoid of *Ephestia cautella* (WALKER) and *Plodia interpunctella* (HÜBNER) (Lepidoptera: Pyralidae) (BEARDSLEY 1961). In Iran, KHANJANI (2006) has reported this species as the parasitoid of *Earias insulana* BOISDUVAL (Lepidoptera: Noctuidae). It was also reported on a number of pest species of the families Curculionidae (Coleoptera) and Cynipidae (Hymenoptera) (FALCÓ et al. 1993). In Iran it was reported as a parasitoid of safflower shoot flies (GHARALI 2004).

***Habrobracon iranicus* FISCHER 1972**

Distribution in Iran: Tehran (MODARRES AWAL 1997), Iran (no locality cited) (FISCHER 1972; SHENEFELT 1978; FALLAHZADEH & SAGHAEI 2010 as *Bracon (Habrobracon) iranicus*; YU et al. 2012).

Distribution outside Iran: Endemic to Iran.

Comments: This species was reported as a parasitoid of *Yponomeuta malinellus* ZELLER (Lepidoptera: Yponomeutidae), *Cydia pomonella* L. (Lepidoptera: Tortricidae), *Heliothis dipsacea* (L.) (Lepidoptera: Noctuidae) (MODARRES AWAL 1997).

***Habrobracon radialis* TELENGA 1936**

Distribution in Iran: Golestan (GHAHARI & FISCHER 2011b; SAKENIN et al. 2012), Guilan (GHAHARI et al. 2012a), Semnan (DEZIANIAN & QUICKE 2006), Iran (no locality cited) (FALLAHZADEH & SAGHAEI 2010).

Distribution outside Iran: Austria (SHENEFELT 1978; TOBIAS 1986 as *B. radialis* TELENGA; TOBIAS 1995), Central Asia (TOBIAS 1986 as *B. radialis*), Hungary (PAPP 2008; YU et al. 2012), Italy, Macedonia, Russia, Tunisia, Uzbekistan, former Yugoslavia (YU et al. 2012), Kazakhstan (SHENEFELT 1978; TOBIAS 1986 as *B. radialis*; TOBIAS 1995; YU et al. 2012), Mongolia (SHENEFELT 1978; TOBIAS 1986 as *B. radialis*; TOBIAS 1995; PAPP 2009a; YU et al. 2012), Turkey (VAN ACHTERBERG 2004; BEYARSLAN et al. 2005, 2010 as *Bracon radialis*; GÜLER & ÇAĞATAY 2007; YU et al. 2012), Turkmenistan (SHENEFELT 1978; TOBIAS 1995; YU et al. 2012).

Comments: Parasitoid of potato tuber moth, *Phthorimaea operculella* ZELLER (Lepidoptera: Gelchiidae) (DEZIANIAN & QUICKE 2006). It was also reported as the parasitoid of *Plutella maculipennis* (CURTIS) (Lepidoptera: Plutellidae) (BEYARSLAN et al. 2005). TOBIAS (1986) reported this species as the parasitoid of diamond back moth, *Plutella maculipennis* CURTIS.

***Habrobracon stabilis* (WESMAEL 1838)**

Distribution in Iran: Qazvin (GHAHARI et al. 2011c), Iran (no locality cited) (YU et al. 2012).

Distribution outside Iran: Cosmopolitan species (TOBIAS 1986 as *B. stabilis* WESMAEL); introduced to Nearctic Region (FALCÓ et al. 1993). Armenia, Austria, Azerbaijan, Bulgaria, Canada, China, Croatia, Cyprus, Estonia, Finland, France, Greece, Ireland, Israel, Italy, Kazakhstan, Lithuania, Moldova, the Netherlands, Poland, Romania, Russia, Slovakia, Slovenia, Tunisia, Ukraine, former Yugoslavia (YU et al. 2012), Belgium (WESMAEL 1838 as *Bracon stabilis*; SZÉPLIGETI 1904 as *B. stabilis* WESMAEL; MAIDL 1923; YU et al. 2012), Czech Republic (LOZAN et al. 2010 as *Bracon stabilis*; YU et al. 2012), Germany, Hungary, Switzerland (SZÉPLIGETI 1904 as *B. stabilis*; MAIDL 1923; YU et al. 2012), Spain (DOCAVO 1964; FALCÓ et al. 1987, 1993; NOTARIO & CASTRESANA 2004; YU et al. 2012), Sweden (SZÉPLIGETI 1904 as *B. stabilis*; YU et al. 2012), Turkey (BEYARSLAN et al. 2010, 2014 as *B. stabilis*; YU et al. 2012), UK (SZÉPLIGETI 1904; MAIDL 1923; BROAD et al. 2011 as *Bracon stabilis*; YU et al. 2012).

Comments: This species was reported as the parasite of a large number of insect species belonging to different orders: Anobiidae, Dermestidae, Scolytidae (Coleoptera), Coleophoridae, Gelechiidae, Oecophoridae, Tortricidae and Yponomeutidae (Lepidoptera) (FALCÓ et al. 1993). *Hylesinus crenatus* FABRICIUS, *H. fraxini* PANZER, *Ips typographus* (L.) (Coleoptera: Scolytidae), *Emobius kiesewetteri* SCHILSKY (Coleoptera: Anobiidae), *Attagenus pelli* (L.) (Coleoptera: Dermestidae), *Laspayresia strobilella* (L.), *Archips rosana* (L.), *Zeiraphera griseana* HÜBNER, *Choristoneura murinana* HÜBNER, *Rhyacionia buoliana* DENIS & SCHIFFERMÜLLER, *R. pinivorana* ZELLER,

Cnephasia longana HAWORTH, *C. chrysantheana* DUPONCHEL, *Epinotia nigricana* (HERRICH-SCHÄFFER), *Tortrix viridana* L. (Lepidoptera: Tortricidae), *Agonopterix subpropinquella* (STANTON) (Lepidoptera: Oecophoridae), *Anarsia spartiella* SCHRANK, *Caryacilum marmoreum* HAWORTH, *Gnorimoschema brahmiella* (HEYDEN) (Lepidoptera: Gelechiidae), *Yponomeuta malinellus* ZELLER (Lepidoptera: Yponomeutidae), *Coleophora laricella* HÜBNER (Lepidoptera: Coleophoridae), *Noeeta pupillata* FALLÉN, *Chaetostomella cylindrica* (ROBINEAU-DISOVIDY) (Diptera: Tephritidae) (TOBIAS 1986).

***Habrobracon telengai* MULJARSKAYA 1955**

Distribution in Iran: Hormozgan (AMERI et al. 2014 as *Bracon* (*Habrobracon*) *telengai*), Kerman (MEHRNEJAD 2010).

Distribution outside Iran: Armenia, Azerbaijan, Cyprus, Georgia, Germany, Moldova, Tajikistan, Turkmenistan, Uzbekistan (YU et al. 2012), Caucasus, Central Asia (TOBIAS 1986 as *B. telengai* (MULJARSKAYA)), Israel (PAPP 1989, 2011-2012; YU et al. 2012), Kazakhstan (TOBIAS 1986 as *B. Telengai*; YU et al. 2012), Turkey (BEYARSLAN et al. 2010, 2014 as *B. telengai*; YU et al. 2012).

Comments: This species was reported as the gregarious endoparasitoid for the larvae of the pistachio fruit hull borer moth, *Arimania komaroffi* RAGONOT (Lepidoptera: Pyralidae) (MEHRNEJAD 2010). It was reported as the parasitoid of caterpillars of *Spilonota ocellana* FABRICIUS, *Gypsonoma minutana* HÜBNER, *Pandemis chondrillana* HERRICH-SCHÄFFER (Lepidoptera: Tortricidae), *Pexicopia malvella* HÜBNER (Lepidoptera: Gelechiidae) and the larvae of bark beetles in shoots of apple, cherry and almond (TOBIAS 1986).

Genus *Pseudovipio* SZÉPLIGETI 1896

***Pseudovipio castrator* (FABRICIUS 1798)**

Distribution in Iran: Hormozgan, Qazvin (ZARGAR et al. 2014), Lorestan (GHAHARI et al. 2012b).

Distribution outside Iran: Palaearctic species (FALCÓ et al. 1993). Caucasus, Central Asia, South & Central Europe, North Africa, Asia Minor (TOBIAS 1986), Albania, Algeria, Azerbaijan, Croatia, Cyprus, Czech Republic, Egypt, Georgia, Germany, Greece, Moldova, Montenegro, Romania, Slovakia, Sudan, Switzerland, Syria, Ukraine, former Yugoslavia (YU et al. 2012), France, Italy (SZÉPLIGETI 1904 as *Glyptomorpha castrator* KOKUJEV; MAIDL 1923 as *G. castrator*; YU et al. 2012), Hungary (SZÉPLIGETI 1904 as *Glyptomorpha castrator* SZÉPLIGETI; MAIDL 1923 as *G. castrator*; PAPP 1960 as *G. castrator* SZÉPLIGETI; PAPP 2008; YU et al. 2012), Israel (PAPP 1989, 2011-2012; YU et al. 2012), Kazakhstan, Mongolia (TOBIAS 1986; YU et al. 2012), Russia (SZÉPLIGETI 1904 as *Glyptomorpha castrator* SZÉPLIGETI; YU et al. 2012), Serbia (BELOKOBYLSKIJ & ŽIKIĆ 2009; YU et al. 2012), Spain (CEBALLOS 1956; DOCAVO 1964; FALCÓ et al. 1993; YU et al. 2012), Turkey (BEYARSLAN et al. 2005, 2014; YU et al. 2012).

Comments: It is principally parasitoid of Buprestidae, Cerambycidae and Curculionidae (PRIORE & TREMLAY 1981) This species was reported as the parasitoid of *Chrysobothris affinis* FABRICIUS, *Buprestis* sp. (Coleoptera: Buprestidae) (TOBIAS 1986; BEYARSLAN et al. 2005; STANKOVIĆ et al. 2010), *Lixus juncki* BOHEMAN (Coleoptera:

Curculionidae), *Gortyna xentheres* GERMAR (Lepidoptera: Noctuidae) (TOBIAS 1986; BEYARSLAN et al. 2005), *Plagionatus arcuatus* L. (Coleoptera: Cerambycidae) (TOBIAS 1986; BEYARSLAN et al. 2005; GHAHARI et al. 2012b).

***Pseudovipio inscriptor* (NEES VON ESENBECK 1834)**

Distribution in Iran: Guilan (GHAHARI et al. 2012a), Hormozgan, Qazvin (ZARGAR et al. 2014), Ilam (GHAHARI et al. 2011d).

Distribution outside Iran: Widely distributed in the entire Europe (FALCÓ et al. 1993). Azerbaijan, Croatia, Cyprus, Czech Republic, France, Georgia, Germany, Israel, Moldova, Romania, Serbia, Slovakia, Ukraine, Uzbekistan, former Yugoslavia (YU et al. 2012), Caucasus, Central Asia, western Europe (TOBIAS 1986), Greece (LOZAN 2004; PAPP 2007; YU et al. 2012), Hungary (SZÉPLIGETI 1904 as *Glyptomorpha inscriptor* NEES; PAPP 1960 as *G. inscriptor*; PAPP 2008; YU et al. 2012), Italy, Russia (SZÉPLIGETI 1904 as *Glyptomorpha inscriptor* NEES; YU et al. 2012), Kazakhstan, Mongolia (TOBIAS 1986; YU et al. 2012), Spain (MASHALL 1897 as *Glyptomorpha (Pseudovipio) corsicus* MARSHALL; DOCAVO 1964; YU et al. 2012), Turkey (BEYARSLAN et al. 2005, 2014; BEYARSLAN & ÇETIN ERDOĞAN 2012; YU et al. 2012).

Comments: Parasitoid of *Ostrinia nubilalis* HÜBNER (Lepidoptera: Pyraustidae) (TOBIAS 1986; FALCÓ et al. 1993; BEYARSLAN et al. 2005; GHAHARI et al. 2012a).

***Pseudovipio kermanensis* (KOKUJEV 1907)**

Distribution in Iran: Sistan and Baluchestan (HEDWIG 1957), Iran (no locality cited) (KOKUJEV 1907 as *Vipio kermanensis* KOKUJEV; FAHRINGER 1926; TELENGA 1936; HEDWIG 1957; FALLAHZADEH & SAGHAEI 2010; YU et al. 2012).

Distribution outside Iran: Afghanistan, Turkmenistan (YU et al. 2012).

***Pseudovipio nigrirostris* (KOKUJEV 1907)**

Distribution in Iran: Iran (no locality cited) (KOKUJEV 1907 as *Vipio nigrirostris* KOKUJEV; FAHRINGER 1926; TELENGA 1936; HEDWIG 1957; FALLAHZADEH & SAGHAEI 2010).

Distribution outside Iran: Endemic to Iran (KOKUJEV 1907 as *Vipio nigrirostris*; FAHRINGER 1926, TELENGA 1936; HEDWIG 1957; YU et al. 2012).

***Pseudovipio schaeuffelei* (HEDWIG 1957)**

Distribution in Iran: Khorasan (HEDWIG 1957 as *Bracon laetus* var. *schaeuffelei* HEDWIG), Iran (no locality cited) (VAN ACHTERBERG 1980; FALLAHZADEH & SAGHAEI 2010; PAPP 2012 as *Bracon laetus*).

Distribution outside Iran: Endemic to Iran (HEDWIG 1957 as *Bracon laetus* var. *schaeuffelei* HEDWIG; VAN ACHTERBERG 1980).

***Pseudovipio tataricus* (KOKUJEV 1898)**

Distribution in Iran: Iran (no locality cited) (TELENGA 1936; SHENEFELT 1976; TOBIAS 1986; FALLAHZADEH & SAGHAEI 2010; YU et al. 2012).

Distribution outside Iran: Armenia, Azerbaijan, China, Cyprus, Israel, Moldova, Tajikistan, Uzbekistan (YU et al. 2012), Caucasus, Central Asia

(TOBIAS 1986), Kazakhstan, Mongolia (TOBIAS 1986; YU et al. 2012), Turkey (BEYARSLAN & ÇETIN ERDOĞAN 2012), Turkmenistan (SZÉPLIGETI 1904 as *Glyptomorpha tataricus* KOKUJEV; YU et al. 2012).

C o m m e n t s : This species was reported as the parasitoid of *Lixus incanescens* BOHEMAN (Coleoptera: Curculionidae) (TOBIAS 1986).

Genus *Rhadinobracon* SZÉPLIGETI 1906

***Rhadinobracon nigrocephalus* (HEDWIG 1957)**

D i s t r i b u t i o n i n I r a n : Sistan and Baluchestan (HEDWIG 1957 as *Pseudovipio nigrocephalus* HEDWIG), Iran (no locality cited) (FALLAHZADEH & SAGHAEI 2010; YU et al. 2012).

D i s t r i b u t i o n o u t s i d e I r a n : Israel (PAPP 2011-2012).

***Rhadinobracon zarudnyi* (TELENGA 1936)**

D i s t r i b u t i o n i n I r a n : Iran (no locality cited) (TELENGA 1936 as *Heliobracon zarudnyi* TELENGA; SHENEFELT 1978; FALLAHZADEH & SAGHAEI 2010).

D i s t r i b u t i o n o u t s i d e I r a n : Endemic to Iran (TELENGA 1936 as *Heliobracon zarudnyi*; SHENEFELT 1978).

Genus *Vipio* LATREILLE 1804

***Vipio humerator* (A. COSTA 1884)**

D i s t r i b u t i o n i n I r a n : Golestan (GHAHARI et al. 2009c), Ilam (GHAHARI et al. 2011d), Iran (no locality cited) (YU et al. 2012).

D i s t r i b u t i o n o u t s i d e I r a n : A Ponto-Mediterranean species (PAPP 1999a, 2003). Transcaucasica, south Europe, North Africa, Asia Minor (TOBIAS 1986 as *Zavipio marshalli* SCHMIEDEKNECHT). Albania, Russia, Spain, former Yugoslavia (SCHMIEDEKNECHT 1897 as *Bracon marshalli* SCHMIEDEKNECHT; YU et al. 2012), Algeria (SCHMIEDEKNECHT 1897 as *B. marshalli*; SZÉPLIGETI 1904 as *V. marshalli* SCHMIEDEKNECHT; MAIDL 1923 as *V. marshalli*), Azerbaijan, Bulgaria, Romania (SZÉPLIGETI 1896 as *Vipio frivaldszki* SZÉPLIGETI; YU et al. 2012), Serbia (BELOKOBYLSKIJ & ŽIKIĆ 2009; YU et al. 2012), Croatia (SCHLETTERER 1895 as *Isomecus schlettereri* KRIECHBAUMER; SCHMIEDEKNECHT 1897 as *B. marshalli*; YU et al. 2012), France (SZÉPLIGETI 1904 as *Vipio rimulosus* THOMSON; YU et al. 2012), Georgia, Ukraine (SZÉPLIGETI 1896 as *V. frivaldszki*; SCHMIEDEKNECHT 1897 as *B. marshalli*; YU et al. 2012), Greece (SZÉPLIGETI 1896 as *V. frivaldszki* SZÉPLIGETI; SCHMIEDEKNECHT 1897 as *B. marshalli*; PAPP 1999b, 2003; LOZAN 2004 as *B. marshalli*; YU et al. 2012), Hungary (SZÉPLIGETI 1904 as *V. frivaldszki*; TOBIAS 1986 as *Zavipio frivaldszkiji* SZÉPLIGETI; YU et al. 2012), Italy (SCHMIEDEKNECHT 1897 as *B. marshalli*; SZÉPLIGETI 1904 as *B. humerator* COSTA; SZÉPLIGETI 1906 as *V. frivaldszki*, and *V. marshalli*; YU et al. 2012), Moldova (SZÉPLIGETI 1896 as *V. frivaldszki*; TOBIAS 1986 as *Zavipio frivaldszkiji*; YU et al. 2012), Slovenia (SZÉPLIGETI 1906 as *V. rimulosus*), Turkey (SZÉPLIGETI 1896 as *V. frivaldszki*; BEYARSLAN et al. 2008, 2014; YU et al. 2012).

***Vipio illusor* (KLUG 1817)**

D i s t r i b u t i o n i n I r a n : Fars (LASHKARI BOD et al. 2010, 2011 in peach orchard).

Distribution outside Iran: Austria, France, Hungary (SZÉPLIGETI 1904 as *Vipio contractor* NEES; YU et al. 2012), Azerbaijan, Italy, Kazakhstan, Moldova, Romania, Russia, Spain, Tunisia, Turkey, Ukraine, former Yugoslavia (YU et al. 2012), Croatia (SZÉPLIGETI 1904; SZÉPLIGETI 1906 as *V. contractor*; PAPP 2009b; YU et al. 2012), Greece (SZÉPLIGETI 1904 as *V. maculator* BRULLÉ; YU et al. 2012), Macedonia, Montenegro (PAPP 2009b; YU et al. 2012), Turkey (BEYARSLAN et al. 2008, 2014).

***Vipio intermedius* SZEPLIGETI 1896**

Distribution in Iran: East Azarbaijan, West Azarbaijan (RASTEGAR et al. 2012), Lorestan (GHAHARI et al. 2012b).

Distribution outside Iran: Palaearctic species (FALCÓ et al. 1993 as *Isoecus intermedius* SZÉPLIGETI), Caucasus, Central Asia, southern part of Western Europe (TOBIAS 1986 as *Zavipio intermedius* SZÉPLIGETI). Albania, Algeria, Armenia, Azerbaijan, Bulgaria, China, Croatia, Czech Republic, Egypt, Georgia, Italy, Moldova, Morocco, Russia, Slovakia, Tajikistan, Ukraine, Uzbekistan, former Yugoslavia (YU et al. 2012), Hungary (SZÉPLIGETI 1904; PAPP 1960, 2008; YU et al. 2012), Kazakhstan (TOBIAS 1986 as *Zavipio intermedius*; YU et al. 2012), Mongolia (PAPP 2009a; YU et al. 2012), Romania, Turkmenistan (SZÉPLIGETI 1906; YU et al. 2012), Spain (SZÉPLIGETI 1906; DOCAVO 1964 and FALCÓ et al. 1993 as *I. intermedius* SZÉPLIGETI; YU et al. 2012), Turkey (BEYARSLAN et al. 2008).

***Vipio longicauda* (BOHEMAN 1853)**

Distribution in Iran: Guilan (GHAHARI et al. 2012a)

Distribution outside Iran: Palaearctic species (FALCÓ et al. 1993 as *Isoecus nominator* FABRICIUS); Caucasus, Central Asia, western Europe, North Africa (TOBIAS 1986 as *Zavipio nominator* FABRICIUS), Albania, Azerbaijan, Bosnia Hercegovina, Croatia, Cyprus, Czech Republic, Georgia, Moldova, Montenegro, the Netherlands, Poland, Serbia, Slovakia, Sweden, Syria, Tajikistan, Ukraine, UK, former Yugoslavia (YU et al. 2012), Algeria (SZÉPLIGETI 1904 as *Vipio nominator* FABRICIUS; YU et al. 2012), Belgium, France, Germany, Italy, Russia, Switzerland (SZÉPLIGETI 1904 as *V. nominator*; MAIDL 1923 as *V. nominator*; YU et al. 2012), Greece (PAPP 1990 as *Vipio nominator*; PAPP 2003; LOZAN 2004 as *V. nominator* (FABRICIUS); YU et al. 2012), Hungary (PAPP 2008; YU et al. 2012), Israel (PAPP 2011-2012), Kazakhstan (TOBIAS 1986 as *Zavipio nominator* FABRICIUS; YU et al. 2012), Macedonia (PAPP 2009b; YU et al. 2012), Mongolia (TOBIAS 1986 as *Zavipio nominator*; YU et al. 2012), Spain (CEBALLOS 1956, DOCAVO 1964 and FALCÓ et al. 1993 as *Isoecus nominator*; YU et al. 2012), Turkey (BEYARSLAN et al. 2005 as *V. nominator*; BEYARSLAN et al. 2008; YU et al. 2012).

Comments: This species was reported as the parasitoid of *Acanthocerus griseus* FABRICIUS, *Elateroides dermestoides* L., *Lymexylon navale* L. (Coleoptera: Lymexylonidae) (BEYARSLAN et al. 2005). It was also reported as the parasitoid of *A. griseus* (Coleoptera: Cerambycidae), *E. dermestoides*, *L. navale* (Coleoptera: Lymexylonidae) (TOBIAS 1986).

***Vipio mlokoszewiczi* KOKUJEV 1898**

Distribution in Iran: Alborz, Qazvin, Tehran (ZARGAR et al. 2014), Mazandaran (GHAHARI et al. 2009a as *Isoecus mlokoszewiczi* KOKUJEV), Iran (no locality cited) (TELENGA 1936; FALLAHZADEH & SAGHAEI 2010; PAPP 2011-2012; YU et al. 2012).

Distribution outside Iran: Afghanistan, Cyprus, Romania, Tajikistan, Turkmenistan, Uzbekistan (PAPP 2011-2012; YU et al. 2012), Azerbaijan, Georgia, Central Asia (TOBIAS 1986 as *Zavipio mlokoszewiczi* KOKUJEV; PAPP 2011-2012; YU et al. 2012), Israel (PAPP 1970, 1989, 2011-2012; YU et al. 2012), Transcaucasica, Europe meridionale (SZÉPLIGETI 1904), Turkey (BEYARSLAN et al. 2008; PAPP 2011-2012; YU et al. 2012).

***Vipio nomioides* SHESTAKOV 1926**

Distribution in Iran: Alborz (ZARGAR et al. 2014), Iran (no locality cited) (SHESTAKOV 1926; TELENGA 1936; TOBIAS 1976, 1986; FALLAHZADEH & SAGHAEI 2010; YU et al. 2012).

Distribution outside Iran: Azerbaijan (SHESTAKOV 1926; TELENGA 1936; TOBIAS 1976, 1986 as *Zavipio nomioides* SHESTAKOV; YU et al. 2012), Czech Republic, Slovakia (YU et al. 2012), Turkey (BEYARSLAN et al. 2008; YU et al. 2012).

***Vipio sareptanus* KAWALL 1865**

Distribution in Iran: Kermanshah (GHAHARI & FISCHER 2012), Iran (no locality cited) (YU et al. 2012).

Distribution outside Iran: Central Asia, Siberia (TOBIAS 1986 as *Zavipio seraptanus* TOBIAS), China, Kazakhstan, Mongolia (TOBIAS 1986 as *Z. seraptanus*), Korea, Latvia (YU et al. 2012), Russia (KOKUJEV 1898 as *Vipio schewyrewi* KOKUJEV; SZÉPLIGETI 1904 as *V. Schewyrewi* SZÉPLIGETI; YU et al. 2012), Serbia (SZÉPLIGETI 1904 as *V. Schewyrewi*), Turkey (BEYARSLAN et al. 2008), Ukraine (KOKUJEV 1898 as *V. Schewyrewi* SZÉPLIGETI; YU et al. 2012).

***Vipio striolatus* TELENGA 1936**

Distribution in Iran: Tehran (ZARGAR et al. 2014).

Distribution outside Iran: Azerbaijan, Croatia, Turkmenia (PAPP 2009b), Kazakhstan, Morocco, Tajikistan, Turkmenistan (YU et al. 2012), Turkey (BEYARSLAN et al. 2008).

***Vipio tentator* (ROSSI 1790)**

Distribution in Iran: Kermanshah (GHAHARI & FISCHER 2012).

Distribution outside Iran: Caucasus, Central Asia, North Africa (TOBIAS 1986 as *Zavipio tentator* ROSSI). Algeria (SZÉPLIGETI 1904; MAIDL 1923; YU et al. 2012), Armenia, Azerbaijan, Czech Republic, France, Georgia, Germany, Greece, Macedonia, Moldova, Romania, Russia, Slovakia, Spain, Syria, Tajikistan, Tunisia, Ukraine, former Yugoslavia (YU et al. 2012), Corsica, Transcaucasia (MAIDL 1923), Croatia (SZÉPLIGETI 1906; YU et al. 2012), Greece (LOZAN 2004; YU et al. 2012), Hungary (SZÉPLIGETI 1904; MAIDL 1923; PAPP 2008; YU et al. 2012), Israel (PAPP 2011-2012; YU et al. 2012), Italy (SZÉPLIGETI 1904 as *Vipio geniculator* COSTA; MAIDL 1923; YU et al. 2012), Kazakhstan (TOBIAS 1986 as *Z. tentator*; YU et al. 2012), Transcaucasica (SZÉPLIGETI 1904), Turkey (BEYARSLAN et al. 2005, 2008; BEYARSLAN & ÇETIN ERDOĞAN 2012; YU et al. 2012).

Comments: This species was reported as the parasitoid of *Agrilus coeruleus* ROSSI (Coleoptera: Buprestidae) (BEYARSLAN et al. 2005, 2008).

***Vipio terrefactor* (VILLERS 1789)**

Distribution in Iran: Iran (no locality cited) (SZÉPLIGETI 1901, 1904; MAIDL 1923; TELENGA 1936; TOBIAS 1976, 1986 as *Zavipio terrefactor* VILLERS; FALLAHZADEH & SAGHAEI 2010; YU et al. 2012).

Distribution outside Iran: Asia Minor, Caucasus (TOBIAS 1986 as *Zavipio terrefactor* VILLERS). Armenia, Azerbaijan, Bosnia Hercegovina, Czech Republic, Germany, Kazakhstan, Latvia, Moldova, Romania, Slovakia, Ukraine, UK, former Yugoslavia (YU et al. 2012), Austria, Russia, France, Italy (SZÉPLIGETI 1904; MAIDL 1923; YU et al. 2012), China (SZÉPLIGETI 1906 as *Vipio interpellator* KOKUJEV; TOBIAS 1986 as *Z. terrefactor*), Croatia, Serbia (PAPP 1998; YU et al. 2012), Greece (PAPP 2003; YU et al. 2012), Hungary (SZÉPLIGETI 1904 as *V. interpellator*; MAIDL 1923; PAPP 1960, 2008; YU et al. 2012), Macedonia (PAPP 1998b; PAPP 2009b; YU et al. 2012), Spain (DOCAVO 1964; FALCÓ et al. 1993 as *Isomecus terrefactor* VILLERS; YU et al. 2012), Turkey (BEYARSLAN et al. 2008; YU et al. 2012).

Comments: It was reported as parasitoid of Cerambycidae (Coleoptera) and Siricidae (Symphyta) (FALCÓ et al. 1993). It was also reported as a parasitoid of *Cyphocleonus achates* FAHRAEUS (Coleoptera: Curculionidae) (BEYARSLAN et al. 2008).

***Vipio terrefactor persica* SZÉPLIGETI 1901**

Distribution in Iran: Iran (no locality cited) (SZÉPLIGETI 1901 as *Vipio persica* SZÉPLIGETI).

Distribution outside Iran: Endemic to Iran (SZÉPLIGETI 1901 as *V. Persica* SZÉPLIGETI).

***Vipio xanthurus* (FAHRINGER 1926)**

Distribution in Iran: Iran (no locality cited) (FAHRINGER 1926; FALLAHZADEH & SAGHAEI 2010; YU et al. 2012).

Distribution outside Iran: Iran (FAHRINGER 1926 as *Pseudovipio xanthurus* FAHRINGER; YU et al. 2012).

Tribe Coeloidini TOBIAS 1957

Genus *Coeloides* WESMAEL 1838

***Coeloides bostrichorum* GIRAUD 1872**

Distribution in Iran: Ardabil (GHAHARI & FISCHER 2011b), Iran (no locality cited) (YU et al. 2012).

Distribution outside Iran: Austria (SZÉPLIGETI 1904; YU et al. 2012), Bulgaria, China, Finland, France, Germany, Hungary, Italy, Japan, Poland, Slovakia, Sweden, Switzerland (YU et al. 2012), Czech Republic (LOZAN et al. 2010; YU et al. 2012), Mongolia, Russia (TOBIAS 1986; YU et al. 2012).

Comments: Parasitoid of *Ips typographus* (L.) (Coleoptera: Scolytidae) (GHAHARI & FISCHER 2011b). It was also reported as a parasitoid of *Ips typographus* LATREILLE (HOUDARY & GRÉGOIRE 2004; PETTERSSON et al. 2011; YU et al. 2012), *I. duplicatus* SAHIB, *I. subelongatus* MOTSCHULSKY, *Cryphalus piceae* (RATZEBURG) (Coleoptera: Scolytidae) (YU et al. 2012)

***Coeloides rossicus* (KOKUJEV 1902)**

Distribution in Iran: Khorasan (SAMIN et al. 2011).

Distribution outside Iran: Afghanistan, Belgium, Canada, Czech Republic, Finland, Germany, Hungary, Kazakhstan, Lithuania, Poland, Russia, Sweden, U.S.A., Ukraine (YU et al. 2012), Ukraine (TOBIAS 1986; YU et al. 2012).

Comments: This species was reported as a parasitoid of the horn tail *Xiphydria camelus* L. (Lepidoptera: Xiphydriidae) (TOBIAS 1986).

Tribe Glyptomorphini TOBIAS 1957

Genus *Glyptomorpha* HOLMGREN 1868

***Glyptomorpha (Glyptomorpha) discolor* THUNBERG 1822**

Distribution in Iran: Golestan (GHAHARI et al. 2009a); Iran (no locality cited) (YU et al. 2012).

Distribution outside Iran: Azerbaijan, France, Georgia, Kazakhstan, Morocco, Turkmenistan, Ukraine (YU et al. 2012), Caucasus, Central Asia, Kazakhstan (TOBIAS 1986), Russia (SZÉPLIGETI 1904 as *Glyptomorpha rossica* KUKOJEV; YU et al. 2012), Siberia, Transcaspia (SZÉPLIGETI 1904 as *G. Rossica* SZÉPLIGETI), Turkey (BEYARSLAN et al. 2006; BEYARSLAN & ÇETIN ERDOĞAN 2012; YU et al. 2012).

***Glyptomorpha kaspariyani* TOBIAS 1976**

Distribution in Iran: Tehran (ZARGAR et al. 2014).

Distribution outside Iran: Armenia, Azerbaijan, Turkey (TOBIAS 1976; YU et al. 2012).

***Glyptomorpha nachitshevanica* TOBIAS 1976**

Distribution in Iran: Fars (LASHKARI BOD et al. 2010, 2011).

Distribution outside Iran: Azerbaijan (TOBIAS 1976; YU et al. 2012).

***Glyptomorpha pectoralis* (BRULLÉ 1832)**

Distribution in Iran: Guilan, Hormozgan, Qazvin (ZARGAR et al. 2014), Kermanshah (GHAHARI & FISCHER 2012), Iran (no locality cited) (SHESTAKOV 1926 as *Glyptomorpha elongata* SHESTAKOV; TELENGA 1936; WATANABE 1937 as *G. elongata* SHESTAKOV; TOBIAS 1976; CAPEK & HOFMANN 1997; FALLAHZADEH & SAGHAEI 2010; YU et al. 2012).

Distribution outside Iran: South Europe (MAIDL 1923 as *Glyptomorpha desertor* (FABRICIUS)), Europe, North Africa (EBNER 1930 as *G. desertor* (FABRICIUS)), Afrotropical and Indo-Australian, Palearctic species (FALCÓ et al. 1993 as *G. desertor*). Afghanistan, Austria, Azerbaijan, Croatia, Czech Republic, Israel, Moldova, Morocco, Mozambique, Poland, Slovakia, Tunisia, UK, former Yugoslavia (YU et al. 2012), Algeria; France (LUCAS 1849 as *G. algerica* LUCAS; SZÉPLIGETI 1904 as *Glyptomorpha algerica* SZÉPLIGETI; YU et al. 2012), Asia Minor, Caucasus, Central Asia (TOBIAS 1986), China (SHESTAKOV 1926 as *G. elongata*; CUSHMAN 1931 as *Vipio chinensis*, and *G. chinensis*; TOBIAS 1986; YU et al. 2012), Egypt, Libya (LUCAS 1849 as *G. algerica*; YU et al. 2012), *Europe meridionale* (SZÉPLIGETI 1904 as *G. desertor*),

Georgia, Ukraine (KOKUJEV 1898 as *Glyptomorpha caucasica* KOKUJEV; YU et al. 2012), Greece (PAPP 1990, 1999b, 2003; YU et al. 2012), Hungary (SZÉPLIGETI 1904 as *G. algerica*; PAPP 1960 as *G. desertor*; YU et al. 2012), India (CAMERON 1904 as *Iphiaulax smenus* CAMERON, and *G. smenus* (CAMERON); TOBIAS 1986; YU et al. 2012), Italy (LUCAS 1849 as *G. algerica*; BRADLEY 1919 as *Vipio deseetus* BRADLEY, and *G. deseeta* (BRADLEY); YU et al. 2012), Japan, Siberia (WATANABE 1937 as *G. elongata* Shestakov), Kazakhstan (SHESTAKOV 1926 as *G. elongata*; TOBIAS 1986), Lebanon (EBNER 1930 as *G. desertor* (FABRICIUS)), Malaysia (CAMERON 1904 as *I. smenus*, and *G. smenus*; YU et al. 2012), Mongolia (SHESTAKOV 1926 as *G. elongata*; WATANABE 1937 as *G. elongata*; TOBIAS 1986), Pakistan (CAMERON 1906 as *Vipio nursei* (CAMERON), and *Vipio unicolor* (CAMERON); TOBIAS 1986; YU et al. 2012), Russia (KOKUJEV 1898 as *G. caucasica* (Kokujev); SZÉPLIGETI 1904 as *G. desertor* FABRICIUS; MAIDL 1923 as *G. desertor* (FABRICIUS); YU et al. 2012), Spain (CEBALLOS 1956; DOCAVO 1964; FALCÓ et al. 1993; NOTARIO & CASTRESANA 2004 as *G. desertor*; YU et al. 2012), Tajikistan, Uzbekistan (SHESTAKOV 1926 as *G. elongata*; YU et al. 2012), Taurus, Cis- and Transcaspiya (SZÉPLIGETI 1904 as *G. caucasica*), Turkey (BEYARSLAN 1999; BEYARSLAN et al. 2005, 2006, 2014; YU et al. 2012), Turkmenistan, South Africa (LUCAS 1849 as *G. algerica*; SZÉPLIGETI 1906 as *G. algerica*; YU et al. 2012).

C o m m e n t s : This species was reported as parasitoid of some host species of the families Buprestidae and Cerambycidae (Coleoptera) (FALCÓ et al. 1993). It was also a parasitoid of *Plagionotus arcuatus* L. (Coleoptera: Cerambycidae) (GHAHARI & FISCHER 2012). This species was also reported as a parasitoid of *Sphenoptera laticollis* OLIVIER, *S. gossypii* KERREMANS, *S. montana* JAKOVLEFF (Coleoptera: Buprestidae), *Plagionotus arcuatus* LATREILLE (Coleoptera: Cerambycidae) (BEYARSLAN et al. 2005). It was also reported as the parasitoid of *Sphenoptera laticollis* OLIVIER, *S. gossypii* KERREMANS, *S. montana* JAKOVLEFF (Coleoptera: Buprestidae), *Plagionotus arcuatus* LATREILLE (Coleoptera: Cerambycidae) (YU et al. 2012). This species was also reported as the parasitoid of *Chrysobothris affinis* FABRICIUS (Coleoptera: Buprestidae) (BEYARSLAN et al. 2005; STANKOVIĆ et al. 2010; YU et al. 2012).

Discussion

Upon the result of this study, 115 species and subspecies of the subfamily Braconinae have been recorded from Iran so far, from four tribes (Aphrastobraconini, Braconini, Coeloidini, and Glyptomorphini), of which the Braconini is the largest of them (101 species and subspecies in 7 genera), followed with a big distance by Aphrastobraconini (7 species in 2 genera), Glyptomorphini (3 species in a single genus), and Coeloidini (2 species in a single genus). Among the eleven genera, *Bracon* with 72 species and subspecies is the most diverse, and consequently *Vipio* with 12 species and subspecies, *Habrobracon* with 8 species, *Pseudovipio* and *Iphiaulax* both with 6 species, *Glyptomorpha* 4 species, *Rhadinobracon* and *Coeloides* both with 2 species, *Megalommum*, *Atanycolus* and *Baryproctus* with one species (Fig. 2).

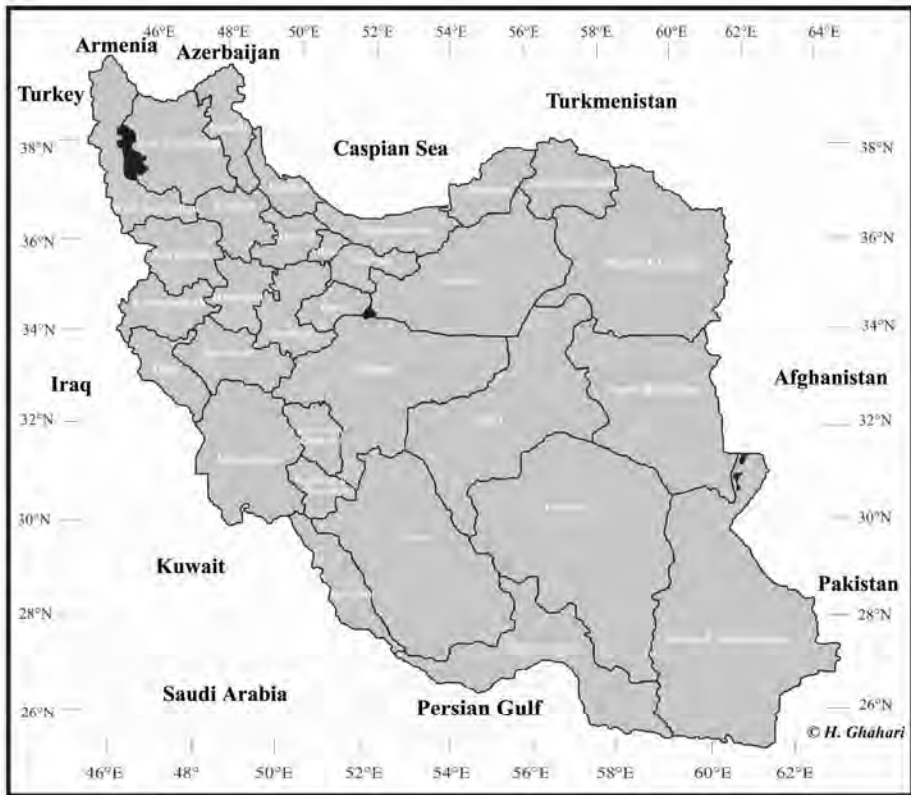


Fig. 1: Map of Iran with boundaries of Provinces.

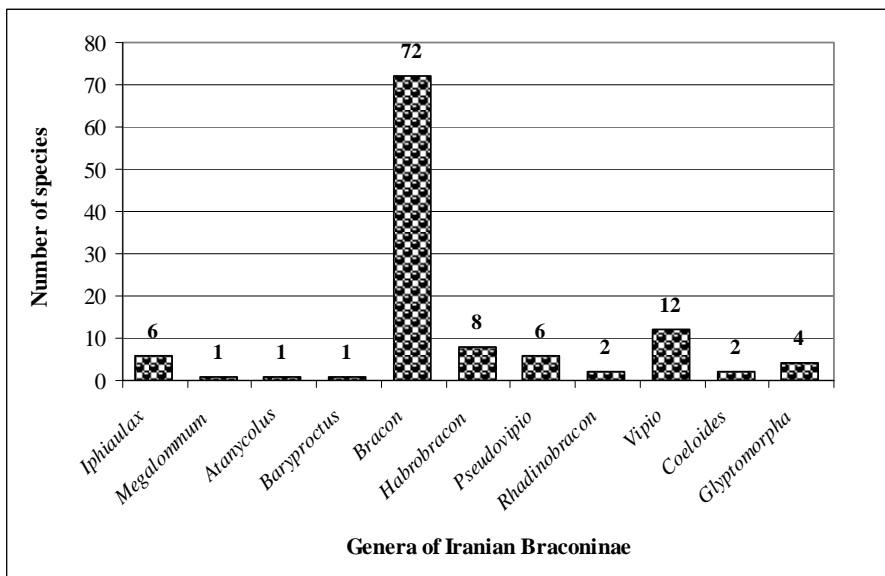


Fig. 2: Species diversity of different genera of Iranian Braconinae.

Acknowledgements

The authors are grateful to M. Fischer, A. Beyarslan, C. van Achterberg, J. Papp and late V.I. Tobias for their cooperation in identification of many specimens from Iran. We are also thankful to M. Shaw, D.S. Yu and H. Ostovan for providing some necessary articles. The research was supported by Cairo University and Shahre Rey Islamic Azad University.

References

- ABBASIPOUR H., MAHMOUDVAND M., BASIJ M. & A. LOZAN (2012): First report of the parasitoid wasps, *Microchelonus subcontractus* and *Bracon intercessor* (Hym.: Braconidae), from Iran. – Journal of Entomological Society of Iran **32** (1): 89-92.
- van ACHTERBERG C. (1980): Notes on some species of Braconidae (Hymenoptera) described by Hedwig from Iran & Afghanistan. – Entomologische Berichten, Amsterdam **40**: 25-31.
- van ACHTERBERG C., HEMMINGA M.A. & J. van SOELEN (1990): New host of *Bracon intercessor* NEES f. *megasomides* STRAND (Hymenoptera: Braconidae), a parasite of *Agapanthia villosoviridenscens* DEGEER (Coleoptera: Cerambycidae) in salt marshes. – Zoologische Mededelingen **64** (3): 25-29.

- van ACHTERBERG C. & A. POLASZEK (1996): The parasites of cereal stem borers (Lepidoptera: Cossidae, rambidae, Noctuidae, Pyralidae) in Africa, belonging to the family Braconidae (Hymenoptera: Ichneumonoidea). – Zoologische Verhandlungen **304**: 1-123.
- van ACHTERBERG C. & M. MEHRNEJAD (2011): A new species of Megalommum SZÉPLIGETI (Hymenoptera, Braconidae, Braconinae), a parasitoid of the pistachio longhorn beetle (Calchaenesthes pistacivora HOLZSCHUH, Coleoptera, Cerambycidae) in Iran. – Zookeys **112**: 21-38.
- ADLDOOST H. (2010): Study on the larval parasitism of *Heliothis virescens* HUF. in the Western Azarbaijan province of Iran. – Proceedings of 19th Iranian Plant Protection Congress, p. 127.
- AFIUNIZADEH ISFAHANI M. & J. KARIMZADEH ISFAHANI (2010): Larval and pupal parasitoids of *Plutella xylostella* (Lep.: Plutellidae) in Isfahan province, Iran. – Plant Protection Journal **2** (2): 79-97.
- AFIUNIZADEH ISFAHANI M., KARIMZADEH J., BROAD G., SHOJAI M., EMAMI M.S., LOTFALIZADEH H., PAPP J., LASALLE J., WHIETFIELD J.B., VAN ACHTERBERG K. & M.R. SHAW (2010): Larval and pupal parasitoids of *Plutella xylostella* in Isfahan province. – Proceedings of 19th Iranian Plant Protection Congress, p. 115.
- AKBARZADEH SHOUKAT G., EBRAHIMI E. & A. MASNADI YAZDINEJAD (2008): Larval parasitoid of *Lobesia botrana* DENIS & SCHIFF. (Lepidoptera: Tortricidae) on grape in Ourmieh, Iran. – Proceedings of 18th Iranian Plant Protection Congress, p. 20.
- AMERI A., TALEBI A.A., BEYARSLAN A., KAMALI K. & E. RAKHSHANI (2014): Study of the genus Bracon FABRICIUS, 1804 (Hymenoptera: Braconidae) of Southern Iran with description of a new species. – Zootaxa **3754** (4): 353-380.
- ASHMEAD W.H. (1889): Descriptions of new Braconidae in the collection of the U.S. National Museum. — Proceedings of the United States National Museum **11** (1888): 611-671.
- BAGHERI M.R. & M.R. NEMATOLLAHI (2006): Biology and damage rate of safflower shoot fly *Acanthiophilus helianthi* in Esfahan province. – Proceedings of 17th Iranian Plant Protection Congress, p. 268.
- BAGHERI M.R. & M. NASR ISFAHANI (2010): The fauna of harmful and beneficial arthropods of medicinal and range plants in Isfahan. – Journal of Entomological Research **3** (2): 119-132.
- BAIRD A.B. (1958): Biological control of insects and plant pests in Canada. – In: BAECKER E.C. (ed.), Proceedings of the 10th International Congress of Entomologist, Ottawa **4**: 483-485.
- BEARDSLEY J.W. (1961): A review of the Hawaiian Braconidae (Hymenoptera). – Proceedings, Hawaiian Entomological Society **17** (3): 333-366.
- BEHDAD E. (1991): Pests of fruit crops in Iran. – Isfahan Neshat, 882 pp. [in Persian].
- BELOKOBYSKIJ S.A. & V. ŽIKIĆ (2009): New data on cyclostomes braconid subfamilies Doryctinae, Exothecinae, Rogadinae and Braconinae (Hymenoptera: Braconidae) of Serbia and neighbouring territories. – Acta entomologica serbica **14** (1): 65-71.
- BEYARSLAN A. (1986): Türkiye' nin Akdeniz Bölgesi'nde Saptanan Bracon FABRICIUS (Hym., Braconidae, Braconinae) Türleri Üzerinde Araştırmalar II. – VII. Ulusal Biyoloji Kongresi, İzmir.
- BEYARSLAN A. (1988): Zwei neue Arten der Familie Braconidae (Hymenoptera) aus der Türkei. – Zeitschrift der Arbeitsgemeinschaft Österreichischer Entomologen **39** (3-4) (1987): 71-76.

- BEYARSLAN A. (1999): Liste der Braconinae-Arten der Mittelmeer- und Marmara-Region der Türkei (Hymenoptera: Braconidae). – *Entomofauna* **20**: 93-120.
- BEYARSLAN A. & F. INANÇ (1995): Marmara Bölgesinin Doğu Kesiminin Braconidae (Hym.) Faunasinin Tespiti. – Proje No: TBAG-1135, 240s.
- BEYARSLAN A., ÇETİN ERDOĞAN Ö. & M. AYDOĞDU (2005): A Survey of Braconinae (Hymenoptera, Braconidae) of Turkish Western Black Sea Region. – *Linzer biologische Beiträge* **37** (1): 195-213.
- BEYARSLAN A., F. INANÇ, Ö. ÇETİN ERDOĞAN & M. AYDOĞDU (2002): Braconiden von den Türkischen Inseln Imbros und Tenedos (Hym., Braconidae: Agathidinae, Braconinae, Cheloninae, Microgastrinae). – *Entomofauna* **23** (15): 173-188.
- BEYARSLAN A., AYDOĞDU M. & Ö. ÇETİN ERDOĞAN (2006): A survey of Turkish Glyptomorpha (Hymenoptera, Braconidae, Braconinae) fauna with redescription of *G. baetica* from a new host. – *Biologia, Bratislava* **61** (1): 139-143.
- BEYARSLAN A., ÇETİN ERDOĞAN Ö. & M. AYDOĞDU (2008): Phytogeographical distribution of *Vipio LATREILLE*, 1804 (Hymenoptera: Braconidae: Braconinae) in Turkey, with a key to the species in Turkey and adjacent regions. – *Biologia* **63** (6): 1161-1168.
- BEYARSLAN A. & Ö. ÇETİN ERDOĞAN (2012): The Braconinae (Hymenoptera: Braconidae) of Turkey, with new locality records and descriptions of two new species of *Bracon FABRICIUS*, 1804. – *Zootaxa* **3343**: 45-56.
- BEYARSLAN A., GÖZÜAÇIK C. & I. ÖZGEN (2014): First research of Braconinae fauna of South-eastern Anatolia region with new localities of Turkey (Hymenoptera: Braconidae). – *Entomofauna* **35** (10): 177-204.
- BOLU H., A. BEYARSLAN, H. YILDIRIM & Z. AKTURK (2009): Two new host records of *Atanycolus ivanowi* (Kokujev, 1898) (Hymenoptera: Braconidae) from Turkey. – *Türkiye Entomoloji Dergisi* **33** (4): 279-287.
- BOLU H., BEYARSLAN A., AKTÜRK Z. & H. YILDIRIM (2010): *Chlorophorus varius damascenus* (Chevrolet 1854) (Coleoptera: Cerambycidae), a new host record for *Iphiaulax impositor* (SCOPOLI 1763) (Hymenoptera: Braconidae) in Turkey. – *Türkiye Biyolojik Mücadele Derneği* **1** (2): 181-185.
- BRADLEY J.C. (1919): The synonymy and types of certain genera of Hymenoptera, especially those discussed by the Rev. F.D. Morice and Mr. Jno. Hartley Durrant in connection with the long-forgotten 'Enlargen List' of Panzer and Jurine. – *Transactions of the Entomological Society of London* **1919**: 50-75.
- BROAD G.R., SHAW M.R. & H.C. GODFRAY (2011): Checklist of British and Irish Braconidae (Hymenoptera). – www.nhm.ac.uk/resources-rx/files/braconidae-checklist-for-web-34139.
- CAMERON P. (1904): Descriptions of new species of *Iphiaulax* and *Chaolta* (Braconidae) from Sarawak, Borneo. – *Journal of the Straits Branch of the Royal Asiatic Society* **42**: 23-51.
- CAMERON P. (1906): On the Tenthredinidae and parasitic Hymenoptera collected in Baluchistan by Major C.G. Nurse. Part I. – *Journal of the Bombay Natural History Society* **17**: 89-107.
- CAMPADELLI G. & E.P.L. SCARAMOZZINO (1994): Parasitic Hymenoptera of xylophagous insects in Romagna. – *Bolletino dell' Instituto Entomologia della Università degli Studi di Bologna* **48**: 115-121.
- CAPEK M. & C. HOFMANN (1997): The Braconidae (Hymenoptera) in the collections of the Musee cantonal de Zoologie, Lausanne. – *Litterae Zoologicae (Lausanne)* **2**: 25-163.

- CEBALLOS G. (1956): C atlogo de los himen opteros de Espania. – Trabajos de Instituto Espa ol de Entomologia. C.S.I.C. Madrid, 554 pp.
- CHERIAN M.C. (1929): Life-history notes on *Microbracon serinopae*, RAMKR. (M.S.) - a parasite on *Nephantis serinopae*. – Yearbook of the Department of Agriculture, Madras, **1928**: 12-22.
- COSTA A. (1888): Muscellanea entomologica. – Memoria seconda Rendiconto dell'Academia della Scienze Fische e Matematiche, Napoli (2) ii: 103-109.
- CUSHMAN R.A. (1931): Description of thirteen new American and Asiatic Ichneumon-flies with taxonomic notes. – Proceedings of the United States National Museum **79** (2880): 1-16.
- DALLA TORRE C.G. DE (1898): Catalogus Hymenopterorum. Volumen IV. Braconidae. – Guilelmi Engelmann Lipsiae, 323 pp.
- DWECK H.K., SVENSSON G.P., G ND Z E.A. & O. ANDERBRANT (2010): Kaironomal response of the parasitoid, *Bracon hebetor* SAY, to the male-produced sex pheromone of its host, the greater waxmoth, *Galleria mellonella* (L.). – Journal of Chemical Ecology **36**: 171-178.
- DEZIANIAN A. & A. JALALI (2004): Investigation on the distribution and seasonal fluctuation and important natural enemies of potato tuber moth *Phthorimaea operculella* (ZELLER) in Shahrood region. – Proceeding of 16th Iranian Plant Protection congress, p. 17.
- DEZIANIAN A. & D. QUICKE (2006): Introduction of potato tuber moth parasite wasp, *Bracon (Habrabracon) aff. radialis* TELENGA from Iran. – Proceedings of 17th Iranian Plant Protection Congress, p. 65.
- DOCAVO I. (1964): Contribuci n al conocimiento de los Brac nidos de Espa a. Subfamilias Braconinae y Cheloninae. – Monographias de Ciencia Moderna. 71. CSIC. Madrid, 215 pp.
- EBNER R. (1930): Hymenopteren aus Pal stina und Syrien (Zoologische Studienreise von R. Ebner 1928 mit Unterst tzung der Akademie der Wissenschaften in Wien). – Akademie d. Wissenschaften Wien 19-26.
- FAAL-MOHAMAD ALI H., SERAJ A.A., TALEBI-JAHROMI Kh., SHISHEBOR P. & M.S. MOSADEGH (2010): Investigation sublethal effect of conventional pesticides of tomato fields on life cycle parameters of *Habrobracon hebetor* SAY (Hymenoptera: Braconidae) in adult stage. – Proceedings of the 19th Iranian Plant Protection Congress, 31 July - 3 Aug. 2010, Iranian Research Institute of Plant Protection, Tehran, Iran, p. 264.
- FAHRINGER J. (1926): Opuscula braconologica. Band 1. Palaearktischen Region. Lieferung 2-3. – Opuscula braconologica, Fritz Wagner, Wien, pp. 61-220.
- FAHRINGER J. (1928): Opuscula Braconologica Palaearktische Region I. – Wien: Fritz Wagner, 606 pp.
- FALLAHZADEH M. & N. SAGHAEI (2010): Checklist of Braconidae (Insecta: Hymenoptera) from Iran. – Munis Entomology & Zoology **5** (1): 170-186.
- FALC  J.V., MONERO J. & R. JIM NEZ (1993): Datos sobre Ciclostominos ib ricos. I. Braconinae (Hymenoptera, Braconidae). – Bolet n de la Asociaci n Espa ola de Entomologia **17** (1): 71-90.
- FISCHER M. (1968):  ber gez chtete Raupenwespen (Hymenoptera, Braconidae). – Pflanzenschutz Berichte **37** (7/8/9): 97-140.
- FISCHER M. (1972): Eine neue Habrobracon-Art aus dem Iran (Hymenoptera, Braconidae). – Entomophaga **17** (1): 89-91.

- FORA C.G., LAEUR K.F. & C. BERAR (2012): Parasitoids of *Ips typographus* (Coleoptera: Scolytidae) in the Natural Park Apuseni. – Journal of Horticulture, Forestry and Biotechnology **16** (1): 174-176.
- FOURUZAN M., SAHRAGARD A. & M. AMIR MAAFI (2010): Age-specific two sex life table of the parasitoid wasp, *Habrobracon hebetor* SAY (Hym.: Braconidae) reared on *Galleria mellonella*. – Proceedings of the 19th Iranian Plant Protection Congress, 31th July. – 3rd Aug. 2010, Iranian Research Institute of Plant Protection, Tehran, Iran, p. 62.
- GEORGIEV G. (2005): Biological characteristics of *Bracon intercessor* NEES (Hymenoptera: Braconidae) as a parasitoid of the poplar clearwing moth, *Paranthrene tabaniformis* (ROTT.) (Lep., Sesiidae) in Bulgaria. – Journal of Pest Science **78**: 161-165.
- GHAHARI H., FISCHER M., ÇETIN ERDOĞAN Ö., TABARI M., OSTOVAN H. & A. BEYARSLAN (2009a): A contribution to Braconidae (Hymenoptera) from rice fields and surrounding grasslands of northern Iran. – Munis Entomology & Zoology **4** (2): 432-435.
- GHAHARI H., FISCHER M., ÇETIN ERDOĞAN Ö., BEYARSLAN A., HEDQVIST K.J. & H. OSTOVAN (2009b): Faunistic note on the Braconidae (Hymenoptera: Ichneumonoidea) in Iranian alfalfa fields and surrounding grasslands. – Entomofauna **30** (24): 437-444.
- GHAHARI H., GADALLAH N.S., ÇETIN ERDOĞAN Ö., HEDQVIST K.J., FISCHER M., BEYARSLAN A. & H. OSTOVAN (2009c): Faunistic note on the Braconidae (Hymenoptera: Ichneumonoidea) in Iranian cotton fields and surrounding grasslands. – Egyptian Journal of Biological Pest Control **19** (2): 115-118.
- GHAHARI H., FISCHER M., ÇETIN ERDOĞAN Ö., BEYARSLAN A. & H. OSTOVAN (2010a): A contribution to the braconid wasps (Hymenoptera: Braconidae) from the forests of northern Iran— Linzer biologische Beiträge **42** (1): 621-634.
- GHAHARI H., FISCHER M., HEDQVIST K.J., ÇETIN ERDOĞAN Ö., VAN ACHTERBERG C. & A. BEYARSLAN (2010b): Some new records of Braconidae (Hymenoptera) for Iran. — Linzer biologische Beiträge **42** (2): 1395-1404.
- GHAHARI H. & M. FISCHER (2011a): A contribution to the Braconidae (Hymenoptera: Ichneumonoidea) from north-western Iran. – Calodema **134**: 1-6.
- GHAHARI H. & M. FISCHER (2011b): A study on the Braconidae (Hymenoptera: Ichneumonoidea) from some regions of northern Iran— Entomofauna **32** (8): 181-196.
- GHAHARI H. & M. FISCHER (2011c): A contribution to the Braconidae (Hymenoptera) from Golestan National Park, northern Iran. – Zeitschrift Arbeitsgemeinschaft Österreichischer Entomologen **63**: 77- 80.
- GHAHARI H., FISCHER M., SAKENIN H. & S. IMANI (2011a): A contribution to the Agathidinae, Alysinae, Aphidiinae, Braconinae, Microgastrinae and Opiinae (Hymenoptera: Braconidae) from cotton fields and surrounding grasslands of Iran. – Linzer biologische Beiträge **43** (2): 1269-1276.
- GHAHARI H., FISCHER M. & J. PAPP (2011b): A study on the braconid wasps (Hymenoptera: Braconidae) from Isfahan province, Iran. – Entomofauna **32** (16): 261-272.
- GHAHARI H., FISCHER M. & J. PAPP (2011c): A study on the Braconidae (Hymenoptera: Ichneumonoidea) from Qazvin province, Iran. – Entomofauna **32** (9): 197-208.
- GHAHARI H., FISCHER M. & J. PAPP (2011d): A study on the Braconidae (Hymenoptera: Ichneumonoidea) from Ilam province, Iran. – Calodema **160**: 1-5.
- GHAHARI H. & M. FISCHER (2012): A faunistic survey on the braconid wasps (Hymenoptera: Braconidae) from Kermanshah province, Iran. – Entomofauna **33** (20): 305-312.
- GHAHARI H., FISCHER M. & V. TOBIAS (2012a): A study on the Braconidae (Hymenoptera: Ichneumonoidea) from Guilan province, Iran. – Entomofauna: **33** (22): 317-324.

- GHAHARI H., FISCHER M., PAPP J. & V. TOBIAS (2012b): A contribution to the knowledge of braconids (Hymenoptera: Braconidae) from Lorestan province Iran. – *Entomofauna* **7**: 65-72.
- GHARALI B. (2004): Study of natural enemies of safflower shoot flies in Ilam province. – Proceedings of 16th Iranian Plant Protection Congress, p. 54.
- GOLIZADEH A. (2008): Thermal requirements and population dynamics of diamondback moth, *Plutella xylostella* (Lep., Plutellidae), in Tehran region. – Ph.D. thesis, Tarbiat Modares University, Tehran, Iran [in Persian].
- GREESE N. (1928): Neue Bracon-Arten aus der Ukraine. – *Konowia* **7**: 154-155.
- GÜLER Y. & N. ÇAĞATAY (2001): Systematical Studies on the Genus *Bracon* (Glabrobracon) (Hymenoptera, Braconidae: Braconinae) in Ankara Province. – *Turkish Journal of Zoology* **25**: 275-286.
- GÜLER Y. & N. ÇAĞATAY (2007): A study on the genus *Bracon* FABRICIUS 1804 (Hymenoptera, Braconidae) in Ankara province in Turkey. – *Munis Entomology & Zoology* **2** (2): 517-524.
- GUNDUZ E.A. & A. GULEL (2005): Investigation of fecundity and sex ratio in the parasitoid *Bracon hebetor* (Say) (Hymenoptera: Braconidae) in relation to parasitoid age. – *Turkish Journal of Zoology* **29**: 291-294.
- HAESSELBARTH E. (1983): Determination list of entomophagous insects. Nr. 9. Bulletin. – Section Regionale Ouest Palaearctique, Organisation Internationale de Lutte Biologique **6** (1): 1-49
- HEDWIG VON K. (1957): Ichneumoniden und Braconiden aus Iran 1954 (Hymenoptera). – Jahresheft des Vereins für Vaterlaendische Naturkunde Württemberg **112** (1): 103-117.
- HEDWIG VON K. (1961): Braconidae (Hymenoptera) aus Afghanistan. – *Opuscula Entomologica* **26** (1-2): 94-96.
- HOELMER K.M. & T.G. SHANOWER (2004): Foreign exploration for natural enemies of cephid sawflies. – *Journal of Agricultural and Urban Entomology* **21** (4): 223-238.
- HOUGARDY E. & J.-C. GRÉGOIRE (2004): Biological differences reflect host preference in two parasitoids attacking the bark beetle *Ips typographus* (Coleoptera: Scolytidae) in Belgium. – *Bulletin of Entomological Research* **94**: 341-347.
- HUSSAIN M., ASKARI A. & G. ASADI (1976): A study of *Bracon lefroyi* (Hymenoptera: Braconidae) from Iran. – *Entomological News* **87**: 299-302.
- KARAMPOUR F. & M. FASIHI (2004): Collection, identification and study of the natural enemies of *Batrachedra amydraula* MEYR. – Proceedings of 16th Iranian Plant Protection Congress, p. 49.
- KHANJANI M. (2004): Field crop pests in Iran. – Bu-Ali Sina University, 719 pp. [in Persian].
- KHANJANI M. (2006): Vegetable pests in Iran. – Bu-Ali Sina University, No. 205. 467 pp. [in Persian].
- KISHANI FARAHANI H., GOLDANSAZ H. & Gh. SABAH (2008): Study on the larval parasitoids of carob moth, *Ectomyelois ceratoniae* ZELLER (Lep.: Pyralidae) in Saveh, Qom, and Varamin. – Proceedings of 18th Iranian Plant Protection Congress, p. 72.
- KISHANI FARAHANI H., GOLDANSAZ H., SABAH Gh. & M. SHAKERI (2010): Study on the larval parasitoids of carob moth *Ectomyelois ceratoniae* ZELLER (Lepidoptera: Pyralidae) in Varamin, Qom and Saveh. – *Iranian Journal of Plant Protection Science* **41** (2): 337-344 [in Persian, English summary].
- KOKUJEV N.R. (1898): Symbolae and cognitionem Braconidarum Imperii Rossici et Asia Centralis. – *Trudy Russkago Entomologischeskago Obschestva* **32**: 345-411.

- KOKUJEV N.R. (1907): Sur quelques especes de Braconides de collections du Musee zoologique de l'Academie imperial des Sciences. – Annales du Musee Zoologique. Academie Imperiale des Sciences. St. Petersburg **10** (1908): 244-250.
- KOKUJEV N.R. (1912): Hymenoptera nova e Caucaso, collecta a dom. A. B. Schelkonikov. – Mitteilungen des Kaukasischen Museums **6** (1): 1-6.
- LASHKARI BOD A., RAKHSHANI E., TALEBI A.A. & A. LOZAN (2010): Introduction of twelve newly recorded species of Braconidae (Hymenoptera) from Iran. – Proceedings of 19th Iranian Plant Protection Congress, Iranian Research Institute of Plant Protection, p. 161.
- LASHKARI BOD A., RAKHSHANI E., TALEBI A.A., LOZAN A. & V. ŽIKIČ (2011): A contribution to the knowledge of Braconidae (Hym., Ichneumonoidea) of Iran. – Biharean Biologist **5** (2): 147-150.
- LEWIS W.J.VET., L.E.M., TUMLINSON J.H., VAN LATEREN J.C. & D.R. PAPAJ (1990): Variations in parasitoid foraging behaviour: essential element of a sound biological control theory. – Environmental Entomology **19**: 1183-1193.
- LOZAN A.I. (2004): Braconid wasps from Crete Island (Greece) with description of *Chorebus tobiasi* sp.n. (Hymenoptera: Braconidae). – Proceedings of the Russian Entomological Society. St. Petersburg **75** (1): 122-126.
- LOZAN A.I., BELOKOBYLSKIJ S., VAN ACHTERBERG C. & M. MONAGHAN (2010): Diversity and distribution of Braconidae, a family of parasitoid wasps in the Central European peatbogs of South Bohemia, Czech Republic. – Journal of Insect Science **10** (16): 1-26.
- MAIDL F. (1923): Beiträge zur Hymenopteren fauna Dalmatiens, Montenegros und Albaniens. III. Teil: Braconidae, Aphidiidae und Serphidae by Dr. Josef Fahringer (Wien). – Annalen Naturhistorischen Museums in Wien **36**: 25-35.
- MARSHALL T.A. (1885): Monograph of British Braconidae. Part VII. – Transactions of the Entomological Society of London, 105 pp.
- MARSHALL T.A. (1897): Les Braconides (Supplement) in André: Species des Hyménoptères d'Europe et d'Algerie. – Vol. 5 bis. Paris, 369 pp.
- MARSHALL T.A. (1900): Les Braconides (Supplement). In: Andre E. (ed.) 1897-1900 'Species des Hymenopteres d'Europe et d'Algerie' Paris. – Tome 5 bis 369 pp.
- MARTINEZ Y. & F.D.C.P. SAEZ (1874): Lista de los himenópteros regalados por el autor a M. Leon Dufour. – Actas de la Sociedad Española de Historia Natural **3**: 30.
- MEDINA M. (1895): Datos para el conocimiento de la fauna himenopterológica española. – Actas de la Sociedad Española de Historia Natural, pp. 11-108, 142-156.
- MEHRNEJAD M.R. (2010): The parasitoids of the pistachio fruit hull borer moth, *Arimania komaroffi*. – Journal of Applied Entomology & Phytopathology **78** (1): 129-130 [in Persian, English summary].
- MILONAS P.G. (2005): Influence of initial egg density and host size on the development of the gregarious parasitoid *Bracon hebetor* on the different host species. – Biocontrol **50**: 415-428.
- MODARRES AWAL M. (1997): Family Braconidae (Hymenoptera), pp. 265-267. – In: MODARRES AWAL M. (ed.), List of agricultural pests and their natural enemies in Iran. Ferdowsi University Press, 429 pp.
- MORENO M.J., FALCÓ J.V. & R. JIMÉNEZ (1990): Study of the parasitoid complex of *Prays citri* MILL. (Lep.: Yponomeutidae) in the south of the Alicante Province. – Boletín de Sanidad Vegetal, Plagas **21** (2): 515-522.
- NADERIAN H., GHAHARI H. & S. ASGARI (2012): Species diversity of natural enemies in corn fields and surrounding grasslands of Semnan province, Iran. – Calodema **217**: 1-8.

- NIEZABITOWSKI E.L. (1910): Materyaly do fauny Brakonidow Polski. Braconidae. Zebrane w. Galicyi. – Sprawozdania Akademii Umiejetnosciw Krakowie **44**: 47-107.
- NOORI P. (1994): The parasitism trend of the wasp *Habrobracon hebetor* SAY on Chloridea spp. in chickpea fields of Kermanshah Province. – Applied Entomology and Phytopathology **61** (1-2): 14, 22-30.
- NOROUI A., TALEBI A.A., FATHIPOUR Y. & A.I. LOZAN (2009): *Apanteles laspeyresiellus* (Hymenoptera: Braconidae), a new record for Iran insect fauna. – Journal of Entomological Society of Iran **28** (2): 79-80.
- NOTARIO A. & L. CASTRESANA (2004): Contribución al. Studio de la entomofauna del Monte del Estado Selladores-Contadero (Jaén). – Invest Agrar: Sist Recur For (2004) Fuera de Serie, 191-200.
- PAPP J. (1960): A revision of the tribe *Braconini* ASHM. From the Carpathian Basin (Hymenoptera, Braconidae). – Annales Historica-Naturales Musei Nationalis Hungarici **52**: 368-380.
- PAPP J. (1962): Taxonomical studies on some species of the subgenus *Glabrobracon* FAHR. (Genus *Bracon* FABR.) (Hymenoptera, Braconidae). – Annales Historica-Naturales Musei Nationalis Hungarici **54**: 353-359.
- PAPP J. (1968): A Synopsis of the *Bracon* FABR. Species of the Carpathian Basin, Central Europe (Hymenoptera, Braconidae), II. Subgenus *Bracon* FABRICIUS. – Annales Historico-Naturales Musei Nationalis Hungarici **60**: 195-211.
- PAPP J. (1970): A contribution of the Braconid fauna of Israel (Hymenoptera). – Israel Journal of Entomology **5**: 63-76.
- PAPP J. (1971): Ergebnisse der zoologischen Forschungen von Dr. Z. Kaszab in der Mongolei. 215. Braconidae (Hym.) 3. – Annales Historico-Naturales Musei Nationalis Hungarici **63**: 307-363.
- PAPP J. (1989): A contribution of the Braconid fauna of Israel (Hymenoptera), 2. – Israel Journal of Entomology **22** (1988): 45-59.
- PAPP J. (1990): Braconidae (Hymenoptera) from Greece, 3. – Annales Musei Goulandris **8**: 269-290.
- PAPP J. (1991): First outline of the braconid fauna of Southern Transdanubia, Hungary (Hymenoptera, Braconidae) IV. Braconinae and Exothecinae. – A Janus Pannonius Múzeum Évkönyve **35** (1990): 71-76.
- PAPP J. (1998): Contributions to the braconine fauna of Cyprus (Hymenoptera, Braconidae: Braconinae). – Entomofauna **19** (14): 241-252.
- PAPP J. (1999a): Braconidae (Hymenoptera) from Greece, 4. – Annales Musei Goulandris **10**: 223-247.
- PAPP J. (1999b): Braconidae (Hymenoptera) from Greece, 4. – Annales Musei Goulandris **10**: 223-247.
- PAPP J. (1999c): *Bracon (Glabrobracon) dilatus* sp.n. from Iran and Iraq with taxonomical remarks on several related species (Hymenoptera: Braconidae, Braconinae). – Folia Entomologica Hungarica Rovartani Közlemények **LX**: 269-282.
- PAPP J. (2003): Braconidae (Hymenoptera) from Greece, 5. – Notes fauniques de Gembloux n° **53**: 21-54.
- PAPP J. (2007): Braconidae (Hymenoptera) from Greece, 6. – Notes fauniques de Gembloux **60** (3): 99-127.

- PAPP J. (2008): A revision of the Bracon (subgenera *Bracon* s.str., *Cyanopterobracon*, *Glabrobracon*, *Lucobracon*, *Osculobracon* subgen.n., *Pigeria*) species described by SZÉPLIGETI from the western Palearctic Region (Hymenoptera: Braconidae, Braconinae). – Linzer biologische Beiträge **40** (1): 1741-1837.
- PAPP J. (2009a): Braconidae (Hymenoptera) from Mongolia, XVII. Eleven subfamilies. – Acta Zoologica Academiae Scientiarum Hungaricae **55** (2): 139-173.
- PAPP J. (2009b): Contribution to the braconid fauna of the former Yugoslavia, V. Ten subfamilies (Hymenoptera, Braconidae). – Entomofauna **30** (1): 1-36.
- PAPP J. (2010): Contribution to the braconid fauna of the former Yugoslavia VI (Hymenoptera: Braconidae). – Entomofauna **31** (25): 389-404.
- PAPP J. (2011-2012): A contribution to the Braconid fauna of Israel (Hymenoptera: Braconidae), 3. – Israel Journal of Entomology **41-42**: 165-219.
- PAPP J. (2012): A revision of the *Bracon* FABRICIUS species in Wesmael's collection deposited in Brussels (Hymenoptera: Braconidae: Braconinae). – European Journal of Taxonomy **21**: 1-154.
- PÉREZ J. (1907): Mission J. Bonnier et Ch. Perez (Golfe Persique, 1901). II. Hymenopteres. – Bulletin scientifique de la France et de la Belgique **41**: 485-505.
- PETERSEN-SILVA R., PUJADE-VILLAR J., NAVES P. & B. EDMUNDO SOUSA (2012): Parasitoids of *Monachus galloprovincialis* (Coleoptera, Cerambycidae), vector of pine wood nematode, with identification key for the Palearctic region. – Zookeys **251**: 29-48.
- PETTERSSON E.M., BIRGERSSON G. & P. WITZQALL (2011): Synthetic attractant for the bark beetle parasitoid *Coeloides bostrichorum* GIRAUD (Hymenoptera: Braconidae). – Naturwissenschaften **88** (2): 88-91.
- PRIORE R. & E. TREMBLAY (1981): *Pseudovipio castrator* F. (Hymenoptera, Braconidae) entomofago di (Hymenoptera, Braconidae) entomofago di *Gortyna xanthenes* GERM. (Lepidoptera, Noctuidae). – Bollettino del Laboratorio di Entomologia Agraria Filippo Silvestri **38**: 275-281.
- RASTEGAR J., SAKENIN H., KHODAPARAST S. & M. HAVASKARY (2012): On a collection of Braconidae (Hymenoptera) from East Azarbaijan and vicinity, Iran. – Calodema **226**: 1-4.
- SAKENIN, H., FISCHER M., SAMIN N., IMANI S., PAPP J., GHAHARI H. & J. RASTEGAR (2011): A faunistic survey on the Braconidae wasps (Hymenoptera: Braconidae) from northern Iran. – Proceedings of Global Conference on Entomology, March 5-9, 2011 Chiang Mai, Thailand, p. 123.
- SAKENIN H., NADERIAN H., SAMIN N., RASTEGAR J., TABARI M. & J. PAPP (2012): On a collection of Braconidae (Hymenoptera) from northern Iran. – Linzer biologische Beiträge **44** (2): 1319-1330.
- SAMIN N., SAKEMIN H., IMANI S. & M. SHOJAI (2011): A study on the Braconidae (Hymenoptera) of Khorasan province and vicinity, Northeastern Iran. – Phagea **39** (4): 137-143.
- SAY T. (1835): Descriptions of new North American Hymenoptera, and observations on some alreadydescribed. – Journal of Natural History **1** (3): 210-305.
- SCHLETTERER A. (1895): Zur Bienen-Fauna des südlichen Istrien. – Programm des K.K. Staats-Gymnasiums in Pola **5**: 3-42.
- SCHMIEDEKNECHT O. (1897): das Studium der Braconiden nebst einer Revision der europäischen und benachbarten Arten der Gattung *Vipio* und *Bracon*. – Illustrierte Wochenschrift für Entomologie **1**: 1-24, 496-498, 510-513, 527-530, 540-543, 557-559, 570-573, 589-592.

- SCHULZ W.A. (1906): *Spolia Hymenopterologica*. – Paderborn (Junfermann), 365 pp.
- SHARKEY M.J. (1993): Family Braconidae, pp. 362-394. – In: GOULET H. & J. HUBER (eds), *Hymenoptera of the world, an identification guide to families*. Agriculture Canada Research Branch Monograph No. **1894E**, 668 pp.
- SHCHEGOLEV V. (1930): *Grain sawflies (Biology, ecology and control)*. Moscow, 120 pp.
- SHENEFFELT R.D. (1978): *Hymenopterum Catalogus (nov. ed.)*. – Pars 15- Braconidae 10, Junk, S- Gravenhage **10**: 1459-1638.
- SHESTAKOV A. (1926): *Species palaearticae novae Braconidarum subfamiliae Braconinarum (Hymenoptera)*. – *Entomologicheskoye Obozreniye* **19**: 208-212.
- SOBHANI M., GOLDANSAZ S.H. & B. HATAMI (2012): Study of larval parasitoids of carob moth *Ectomyelois ceratoniae* (Lep.: Pyralidae) in Kashan region. – *Proceedings of 20th Iranian Plant Protection Congress*, p. 83.
- SHOJAI M. (1998): *Entomology (ethology, social life and natural enemies) (biological control) III*. – Tehran University Publications **1681**, 550 pp.
- STANKOVIĆ V., ZIKIĆ V. & M. ILLIĆ (2010): *Betula* species as host plants for various insects parasitized by braconids (Hymenoptera: Braconidae) in Serbia. – *Biologica Nyssana* **10**: 117-122.
- SZÉPLIGETI G. (1901): *Tropische Cenocoloniden und Braconiden aus der Sammlung des Ungarischen National-Museums*. – *Természetrizsi Füzetek* **24**: 354-402.
- SZÉPLIGETI G. (1904): *Hymenoptera. Fam. Braconidae*. – *Genera Insectorum* **22**: 1-253.
- SZÉPLIGETI G. (1906): *Braconiden aus der Sammlung des ungarischen National-Museums, 1*. – *Annales Historico-Naturales Musei Nationalis Hungarici* **4**: 547-618.
- TELENGA N.A. (1933): *Einige neue Braconiden-Arten aus USSR (Hymenoptera)*. – *Konowia* **12** (3-4): 242-244.
- TELENGA N.A. (1936): *Braconidae Pt.1. Hymenoptera Fauna USSR*. – *Hymenoptera* **5** (2): 402 pp.
- TOBIAS V.I. (1976): *Braconids of the Caucasus (Hymenoptera, Braconidae) (in Russian)*. – *Opred. Faune SSSR. Nauke Press. Leningrad* **110**: 286 pp.
- TOBIAS V.I. (1986): *Gnaptodontinae, Braconinae, Telengainae*, pp. 85-149. – In: MEDVEDEV G.S. (ed.), *'Opredelitel Nasekomykh Evropeiskoi Tsasti SSSR3, Peredpiontdatokrylye 4. Opr. Faune SSSR*. **145**: 1-501.
- TOBIAS V.I. (1995): *Keys to The Insects of The European Part of USS*. – In: MEDVEDEV G.S. (ed), *3(4)*. New Delhi, Baba Barkha Nath, pp. 900.
- TOBIAS V.I., CAPEK M. & P. LAUTERER (1998): *Braconidae (Hymenoptera) from Afghanistan in the collections of the Moravian Museum*. – *Acta Musei Moraviae Scientiae Biologicae* **82** (1997): 173-190.
- THOMSON C.G. (1892): *XLVII. Bidrag till Braconidernas Kannedom. I. Cyclostomi*. – *Opuscula Entomologica* **XVII**: 1777-1861.
- SHENEFFELT R.D. (1978): *Braconidae 10: Braconinae, Gnathobraconinae, Mesostoinae, Pseudodicrogeniinae, Telengainae, Ypsistocerinae, plus Braconidae in general, major groups, unplaced genera and species*. – In: van der VECHT J. & R.D. SHENEFFELT (eds), *Hymenopterorum Catalogus (nova editio)*, 15. W. Junk, 's-Gravenhage, pp. 1425-1872.
- VIERECK H.L. (1911): *Descriptions of six new genera and thirty-one new species of Ichneumon flies*. – *Proceedings of the United States National Museum* **40** (1812): 173-196.

- VOJNORSKAJA-KRIEGER T.G. (1929): Einige neue Braconiden-Arten aus Russland. – *Konowia* **8**: 234-235.
- WALKER F. (1874): Descriptions of some Japanese Hymenoptera. – *Cistula Entomologica* **1**: 301-310.
- WANG Y.-P., SHI M., CHEN X.-X. & J.-H. HE (2009): The genus *Atanycolus* FOERSTER (Hymenoptera, Braconidae, Braconinae) in China, with description of one new species. – *Zookeys* **27**: 31-41.
- WATANABE C. (1935): On some species of Braconidae from North China and Korea. – *Insecta Matsumurana* **10**: 43-51.
- WATANABE C. (1937): On some species of Braconidae from Manchoukuo (Contributions to the knowledge of the Braconid fauna of Manchukuo, 1). – *Insecta Matsumurana* **12** (1): 39-44.
- WESMAEL C. (1838): Monographie des Braconides de Belgique. 4. – *Nouveaux Memoires de l'Academie Royale des Sciences et Belles-lettres de Bruxelles* **11**: 1-166.
- YU D.S., C. VAN ACHTERBERG & K. HORSTMANN (2012): World Ichneumonoidea 2005. Taxonomy, biology, morphology and distribution [Braconidae]. – *Taxapad 2006* (Scientific names for information management) Interactive electronical catalogue on DVD/CD-ROM. Vancouver.
- ZARGAR M., TALEBI A.A., HAJIQANBAR H., FARAHANI S. & A. AMERI (2014): A contribution to the knowledge of Braconinae (Hymenoptera: Braconidae) in some parts of northern and southern Iran. – *Journal of Crop Protection* **3** (2): 233-243.
- ŽIKIĆ V., VAN ACHTERBERG C. & S. STANKOVIĆ (2010): A contribution to Braconidae, Hybrizontidae (Hymenoptera: Ichneumonoidea) and Stephanidae (Hymenoptera: Stephanoidea) from the south-west Balkans. – *Acta entomologica serbica* **15** (2): 227-235.
- ŽIKIĆ V., STANKOVIĆ S.S. & M. ILIĆ (2012): Checklist of the genus *Bracon* (Hymenoptera: Braconidae) in Serbia. – *Biologica Nyssina* **3** (1): 21-29.
- ŽIKIĆ V., STANKOVIĆ S.S., ILIĆ M. & N.G. KAVALLIERTOS (2013): Braconid parasitoids (Hymenoptera: Braconidae) on poplars and aspen (*Populus* spp.) in Serbia and Montenegro. – *North-Western Journal of Zoology* **9** (2): 264-275.

Authors' addresses:

Dr. Neveen S. GADALLAH

Entomology Department, Faculty of Science

Cairo University, Giza, Egypt

E-mail: n_gadallah@yahoo.com

Corresponding author

Dr. Hassan GHAHARI

Department of Plant Protection, Shahre Rey Branch

Islamic Azad University

Tehran, Iran

E-mail: hghahari@yahoo.com

Buchbesprechungen

WEHNER R. & W. GEHRING: **Zoologie**. – Georg Thieme Verlag, Stuttgart-New York 2013, 25. Auflage, 792 S.

Mit dieser "Jubiläumsausgabe" folgt etwa 6 Jahre nach der erstmals großformatigen 24. Auflage die Neufassung des Zoologie-Klassikers, weiterhin aus der Feder von nur zwei Autoren. Die beiden in der Schweiz und Deutschland lehrenden Professoren Rüdiger Wehner und Walter Gehring bemühten sich, in den einzelnen Disziplinen die grundlegenden Fragestellungen und Konzepte herauszustellen und mit Forschungsbeispielen jeweils zu untermauern. Die vorliegende 25. Auflage wurde stark überarbeitet und aktualisiert; erstaunlich, dass sich der Gesamtumfang dabei eher deutlich verringerte (792 S. aktuell, 24. Aufl. 951 S.). Die Grundgliederung in 12 Kapitel wurde beibehalten und alle Kapitel sollten als selbstständige Texte gelesen werden können. Zahlreiche Querverweise helfen, sich beim Lesen auch jeweils anderen Themenkomplexen zuzuwenden und dort weitere Informationen zu finden. Ein besonderer Schwerpunkt wurde erneut auf das Kapitel "Vielfalt der Organismen" gelegt, also dem klassischen Systematischen Teil, der durchgehend einer phylogenetischen Systematik folgt, und etwa ein Fünftel des gesamten Textumfanges einnimmt.

Blättert man einzelne Kapitel im Vergleich (zur 24. Aufl.) durch, wird man feststellen, dass sich eigentlich nicht sehr viel Neues getan hat, sieht man einmal vom moderneren Layout (Übersichten, Boxen) ab. Als Lehrender und auch Studierender kann man noch gut mit der 24. Auflage weiter arbeiten, was letztendlich für die beeindruckende Aktualität dieses Werkes spricht.

Der "Wehner, Gehring" wird DAS Zoologie-Lehrbuch im deutschsprachigen Raum bleiben, weil dieses Buch alle Teildisziplinen (Zellbiologie, Genetik, Neurobiologie, Ethologie, Ökologie, Evolution und Systematik) der Zoologie umfasst.

R. Gerstmeier

STOKLAND J.N., SIITONEN J. & B.G. JONSSON: **Biodiversity in Dead Wood**. Cambridge University Press, Cambridge, 2012. 509 S. ISBN: 9780521888738/9780521717038.

Fossilien belegen die Existenz von Bäumen und holzassozierten Organismen seit nahezu 400 Millionen Jahren und man geht heute von über einer halben Million holzbewohnender Arten weltweit aus. In den letzten Jahrzehnten wurde vermehrt ein Augenmerk auf die Bedeutung von Totholz und sich zersetzenden Bäumen bezüglich der Biodiversität gerichtet. Auch wenn die Inhalte dieses Buches primär global ausgelegt sein sollten, muss doch ein starker Fokus auf die nordeuropäische Situation festgestellt werden. Vieles in diesem Band dreht sich um Pilze und Insekten, so dass man auch sagen könnte, dass dieses Buch eine "Mykologie für Entomologen" oder eine "Entomologie für Mykologen" darstellt. Neben einer sehr kurzen Einführung, die das Konzept der xylobionten Arten definiert, hängen die 16 weiteren Kapitel über die unterschiedlichen Aspekte der Biodiversität (Funktion, Struktur, Zusammensetzung sowie Naturschutz und Management) zusammen: "Wood decomposition", "The saproxylic food web", "Other associati-

ons with dead woody material", "Host-tree associations", "Mortality factors and decay succession", "Microhabitats", "Tree size", "The surrounding environment", "Evolution of saproxylic organism", "Species diversity of saproxylic organisms", "Natural forest dynamics", "Dead wood and sustainable forest management", "Population dynamics and evolutionary strategies", "Threatened saproxylic species", "Dead wood in agricultural and urban habitats" und "The value and future of saproxylic diversity" sind die einzelnen Themen.

Somit wird zum ersten Mal eine Synthese aus der Naturgeschichte holzbewohnender Organismen und die für sie notwendigen Schutzmaßnahmen dargestellt. Es wird die funktionelle Diversität dieser Organismen und ihre spezifischen Habitatansprüche in Bezug auf Wirtsbäume, Zersetzungsgrad, Baumdimension, Mikrohabitate und die umgebende Umwelt beschrieben. Aber auch die aus Holzwirtschaft und Waldmanagement resultierenden Gefahren werden aufgezeigt.

Eine hervorragende Zusammenfassung für Biologen, vornehmlich mit Schwerpunkt Waldökologie und Biodiversität, aber ebenso wichtig und interessant für Forstwirte und -manager sowie für das Naturschutzmanagement.

VOLAND E.: **Soziobiologie**. Die Evolution von Kooperation und Konkurrenz. – Springer Spektrum, Heidelberg, 4. Aufl., 2013. 260 S.

Soziobiologie wird in diesem Buch als die Wissenschaft von der biologischen Anpasstheit des tierischen und menschlichen Sozialverhaltens definiert. In den Selbsterhaltungs- und Fortpflanzungsmechanismen der Tiere spielt das Sozialverhalten eine Schlüsselrolle. So werden in diesem Buch Kosten und Nutzen des Soziallebens ebenso behandelt wie Strategien sozialer Konkurrenz. In einer recht breiten Einführung werden Paradigma sowie Konzepte und Modelle der Soziobiologie erläutert. Die folgenden "Kernkapitel" sind: Kooperation und Konflikt in sozialen Gruppen, was die Evolution sozialer Lebensformen (Vor- und Nachteile des Gruppenlebens, Eusozialität) und die sozialen Strategien (Kampf, Dominanz, Despotismus, Kooperation und Altruismus, Gruppenphänomene) beinhaltet. Im Kapitel "Geschlechter-beziehungen" geht es um die gesellschaftliche Konkurrenz, Partnerwahl und die entsprechenden Fortpflanzungssysteme. Die "Fortpflanzungsstrategien" schlagen zu Beginn bezüglich r- und K-Strategie die Brücke zur Ökologie, zeigen die adaptiven Gründe für ein unterschiedliches Elterninvestment auf und analysieren diverse Strategien bezüglich der Bevorzugung eigener Nachkommen, gemeinschaftlicher Kinderaufzucht, Stiefverhältnisse sowie Helferinnen-Strategien. Im letzten Kapitel wird der Bogen über die Soziobiologie zu Anthropologie und menschliche Kulturen geschlagen.

Viele Beispiele in diesem Buch sind der Human-Soziobiologie entnommen, was begrüßt werden muss, denn Bücher über die tierische Verhaltensbiologie sind ausreichend vorhanden. So sind die Adressaten für dieses kompakte Lehrbuch nicht nur Studierende und Lehrende der Biologie, sondern auch der Anthropologie, Psychologie und Sozialwissenschaften.

Ein gutes, empfehlenswertes klassisches Lehrbuch, mit ausschließlich schwarz-weißem Bildmaterial und Graphiken.

R. Gerstmeier

Druck, Eigentümer, Herausgeber, Verleger und für den Inhalt verantwortlich:

Maximilian SCHWARZ, Konsulent f. Wissenschaft der Oberösterreichischen Landesregierung, Eibenweg 6, A-4052 Ansfelden, E-Mail: maximilian.schwarz@liwest.at.

Redaktion: Erich DILLER, ZSM, Münchhausenstraße 21, D-81247 München;
Roland GERSTMEIER, Lehrstuhl f. Tierökologie, H.-C.-v.-Carlowitz-Pl. 2, D-85350 Freising
Fritz GUSENLEITNER, Lungitzerstr. 51, A-4222 St. Georgen/Gusen;
Wolfgang SPEIDEL, MWM, Tengstraße 33, D-80796 München;
Thomas WITT, Tengstraße 33, D-80796 München.

Adresse: Entomofauna, Redaktion und Schriftentausch c/o Museum Witt, Tengstr. 33, 80796 München, Deutschland, E-Mail: thomas@witt-thomas.com; Entomofauna, Redaktion c/o Fritz Gusenleitner, Lungitzerstr. 51, 4222 St. Georgen/Gusen, Austria, E-Mail: f.gusenleitner@landesmuseum.at

ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: [Entomofauna](#)

Jahr/Year: 2015

Band/Volume: [0036](#)

Autor(en)/Author(s): Gadallah Neveen Samy, Ghahari Hassan

Artikel/Article: [An annotated catalogue of the Iranian Braconinae \(Hymenoptera: Braconidae\) 121-176](#)