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An annotated catalogue of the Iranian Agathidinae and Brachistinae (Hymenoptera: Braconidae)

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Abstract: The fauna of Iranian Agathidinae and Brachistinae (Hymenoptera: Braconidae) is summarized in this paper, and synonyms and distribution data are given. In total 28 species of Agathidinae from nine genera *Agathis* LATREILLE, *Bassus* Fabricius, *Camptothlipsis* ENDERLEIN, *Coccygidium* SAUSSURE, *Cremnops* FÖRSTER, *Disophrys* FÖRSTER, *Earinus* WESMAEL, *Leptopylus* FÖRSTER, *Therophilus* WESMAEL, and 17 species of Brachistinae from four genera *Eubazus* NEES von ESENBECK, *Foersteria* SZÉPLIGETI, *Schizoprymnus* FÖRSTER, *Triaspis* HALIDAY are listed from the fauna of Iran. Two species of Brachistinae, *Triaspis pallipes* (NEES) and *Eubazus* (*Brachistes*) *minutus* (RATZEBURG) are newly recorded from Iran. Host records are also given for each species whenever available.

Key words: Hymenoptera, Braconidae, Agathidinae, Brachistinae, catalogue, Iran.

Introduction

Agathidinae is moderately large subfamily with at least 800 species worldwide, which its members are koinobiont endoparasitoids, are natural enemies on lepidopteran families, especially, Gelechiidae, Coleophoridae, Noctuidae, Blastobasidae, Tineidae and Tortricidae (ZETTEL & BEYARSLAN 1992). The biology of most species is unknown, but in general agathidines are koinobiont endoparasitoids of larvae of Lepidoptera. The species with a short ovipositor select exposed larvae and those with a long ovipositor use larvae with a concealed way of life (VAN ACHTERBERG & LONG 2010). Agathidins lay their eggs on the first and second instars of their hosts, mostly, prefer the ventral ganglion or lateral lobe protocerabrum (QUEDNAU 1970; GÜÇLÜ & ÖZBEK 2011). The egg increases in size before hatching and the caudate first-instar larva, which has a discernible tracheal system but no spiracles, floats freely in the haemocele. It is equipped fighting mandibles and after feeding, the larva remains in its first instar during the feeding period of the host, diapausing in this stage if the host diapauses partly grown (THORPE 1933; SHAW & HUDDLESTON 1991; SHARKEY 1998). Some species are very important as biological control agents on various insect pests having economical importance (SHAW & HUDDLESTON 1991).

The Brachistinae is a large subfamily of moderately small to large parasitoid wasps with more than 2000 described species worldwide (SHAW & HUDDLESTON 1991). Members of the subfamily live as parasitoids on the families Curculionidae and Apionidae (Coleop-

tera), which also include very important agricultural pests (BELOKOBYSKIJ 1998; BELOKOBYSKIJ et al. 2004).

The fauna of Iranian Agathidinae and Brachistinae was studied rather well especially in the recent papers (including, GHAHARI et al. 2009a, b, c; 2010a, b, 2011a, b, c, d; 2012a, b; GHAHARI & FISCHER 2011a, b; 2012; SAKENIN et al. 2011, 2012; LASHKARI BOD et al. 2010, 2011; NADERIAN et al. 2012; SAMIN et al. 2011; RASTEGAR et al. 2012). Additionally, FALLAHZADEH & SAGHAEI (2010) listed 4 species of Iranian Agathidinae from 4 genera (*Agathis*, *Coccygidium*, *Cremnops*, *Disophrys*), and 2 species of Brachistinae from one genus (*Schizoprymnus*). In the present study a faunistic list of Agathidinae and Brachistinae comprising the synonyms, distribution data inside and outside Iran are given for each species as possible.

Materials and Methods

The published data on the Agathidinae and Brachistinae from Iran are summarized. 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, synonyms, published records with provincial distribution (see Fig. 1), or when this information is not available - "Iran (no locality cited)" is given; and the general distribution.

Results

Totally 28 species of Agathidinae and 17 species of Brachistinae are listed from the fauna of Iran. Synonyms, distribution data and host records are also given. Among the 17 brachistines, two species are considered as new records to the Iranian fauna: *Triapis pallipes* (NEES) and *Eubazus (Bracistes) minutus* (RATZEBURG).

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

Subfamily *A g a t h i d i n a e* HALIDAY 1833

Tribe *A g a t h i d i n i* HALIDAY 1833

Genus *Agathis* LATREILLE 1804

Agathis anglica MARSHALL 1885

Agathis anglica MARSHALL 1885: 265; *Agathis longicauda* KOKUJEV 1895: 385; ?*Agathis nigra* var. *marshalli* FAHRINGER 1937: 469; *Agathis albanica* FAISCHER 1957: 3; *Agathis syriaca* FISCHER 1957: 5-6; *Agathis caucasica* TOBIAS 1963: 877; *Agathis taiwaniensis* CHOU & SHARKEY 1989: 150.

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

D i s t r i b u t i o n o u t s i d e I r a n : Albania (FISCHER 1957 as *A. albanica*;

NIXON 1986; YU et al. 2012), Armenia, Azerbaijan, Mongolia, Tajikistan, Ukraine (KOKUJEV 1895 as *A. longicauda*; YU et al. 2012), Austria, Bulgaria, Cyprus (NIXON 1986; YU et al. 2012), China (CHOU & SHARKEY 1989 as *A. taiwanensis*; YU et al. 2012), Croatia (SHENEFELT 1970; PAPP 2009a; YU et al. 2012), Cyprus (NIXON 1986; PAPP 1998; YU et al. 2012), Europe (FISCHER 1968), France, Kazakhstan, Morocco, Poland, Romania, Slovenia, Spain, Sweden, Switzerland, Taiwan (YU et al. 2012), Finland, Germany, the Netherlands (SHENEFELT 1970; YU et al. 2012), Greece (NIXON 1986; PAPP 2007; YU et al. 2012), Hungary (KOKUJEV 1895 as *A. longicauda*; SHENEFELT 1970; YU et al. 2012), Israel (PAPP 2011-2012), Italy (KOKUJEV 1895 as *A. longicauda*; NIXON 1986; YU et al. 2012), Macedonia (PAPP 2009a), Montenegro, Serbia (KOKUJEV 1895 as *A. longicauda*; ŽIKIĆ et al. 2010; YU et al. 2012), Russia (KOKUJEV 1895 as *A. longicauda*; SZÉPLIGETI 1904 as *A. longicauda*; TOBIAS 1963 as *A. caucasica*; FISCHER 1968 as *Agathis caucasicus*; SHENEFELT 1970; YU et al. 2012), Syria (FISCHER 1957 as *A. syriaca*; FISCHER 1968 as *A. syriaca*; PAPP 2011-2012; YU et al. 2012), Turkey (FISCHER 1957 as *A. syriaca*; ZETTEL & BEYARSLAN 1992; ÇETIN ERDOĞAN & BEYASLAN 2001; PAPP 2011-2012; YU et al. 2012; ÇETIN ERDOĞAN 2013), UK (SZÉPLIGETI 1904; SHENEFELT 1970; NIXON 1986; YU et al. 2012), former Yugoslavia (KOKUJEV 1895 as *A. longicauda*; SHENEFELT 1970; YU et al. 2012).

Host record: Parasitoid of *Epinotia mercuriana* (FRÖLICH) (Lepidoptera: Tortricidae) (NIXON 1986). A large number of lepidopterous hosts were reported for *A. anglica*: *Agonopterix nervosa* (HAWORTH), *A. pallorella* ZELLER (Depressariidae), *Aproaerema anthyllidella* (HÜBNER), *Nothris verbascella* (DENIS & SCHIFFERMÜLLER), *Pexicopia malvella* HÜBNER, *Syncopacma taeniolella* ZELLER (Gelechiidae), *Coleophora adjunctella* HODGKINSON, *C. albitarsella* ZELLER, *C. argentula* STEPHENS, *C. discordella* ZELLER, *C. laricella* (HÜBNER), *C. lusciniapenella* TREITSCHKES (Coleophoridae), *Epinotia mercuriana* FRÖLICH (Tortricidae), *Loxostege sticticalis* (LINNAEUS), *Pyrausta aurata* SCOPOLI (Pyralidae) (YU et al. 2012).

***Agathis assimilis* KOKUJEV 1895**

Agathis assimilis KOKUJEV 1895: 387; *Agathis propinqua* KOKUJEV 1895: 384; *A. jakowlewi* KOKUJEV 1895: 381; *A. anchisiades* NIXON 1986: 207.

Distribution in Iran: Guilan (GHAHARI et al. 2012a), Semnan (GHAHARI et al. 2009c).

Distribution outside Iran: Austria (FISCHER 1968 as *A. propinqua*; SHENEFELT 1970; YU et al. 2012), Azerbaijan, Korea, Lithuania, Moldova, Norway, Poland, Switzerland, Ukraine (KOKUJEV 1895 as *A. propinqua*; YU et al. 2012), Bulgaria, England (NIXON 1986; YU et al. 2012), Caucasus, France, Germany, the Netherlands (SIMBOLOTTI & VAN ACHTERBERG 1999; YU et al. 2012), Croatia, Macedonia (KOKUJEV 1895 as *A. propinqua*; PAPP 2009a; YU et al. 2012), Europe (FISCHER 1968), Hungary (NIXON 1986 as *A. anchisiades*; SIMBOLOTTI & VAN ACHTERBERG 1999; YU et al. 2012), Italy (KOKUJEV 1895 as *A. propinqua*; FISCHER 1968 as *A. propinqua*; YU et al. 2012), Kazakhstan, Tajikistan (FISCHER 1968; SHENEFELT 1970; YU et al. 2012), Mongolia (KOKUJEV 1895 as *A. propinqua*; SHENEFELT 1970; YU et al. 2012), Montenegro (PAPP 2010; YU et al. 2012), Russia (KOKUJEV 1895 as *A. jakowlewi*; SZÉPLIGETI 1904 as *A. jakowlewi*, and *A. propinqua*; FISCHER 1968 as *A. jakowlewi*; SHENEFELT 1970; YU et al. 2012), Turkey (ZETTEL & BEYARSLAN 1992; ÇETIN ERDOĞAN & BEYARSLAN 2001;

ÇETIN ERDOĞAN et al. 2009; YU et al. 2012), Uzbekistan (KOKUJEV 1895 as *A. propinqua*; FISCHER 1968; SHENEFELT 1970; YU et al. 2012), former Yugoslavia (PAPP 1975).

Host record: Parasitoid of *Coleophora astragalella* ZELLER (Lepidoptera, Coleophoridae) (YU et al. 2012).

***Agathis breviseta* NEES VON ESENBECK 1812**

Agathis breviseta NEES 1812: 131.

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

Distribution outside Iran: Belgium, Czech Republic, Finland, France, Germany, The Netherlands, England, Spain, Sweden, Switzerland, Hungary, Poland, Romania, Slovakia (SHENEFELT 1970), Bulgaria, Ireland, former Yugoslavia (NIXON 1986), Caucasia, Middle Asia, Western Europe (TOBIAS 1986), Greece, Russia, Slovenia (SIMBOLOTTI & VAN ACHTERBERG 1999), Mongolia (SHENEFELT 1970; TOBIAS 1986; PAPP 2009b), Siberia (SHENEFELT 1970; TOBIAS 1986), Turkey (NIXON 1986; ÇETIN ERDOĞAN & BEYASLAN 2001).

Host record: Parasitoid of *Aethes rutilana* HÜBNER, *Argyroploce mygindiana* DENIS & SCHIFFERMÜLLER, *Spilonota ocellana* FABRICIUS (Lepidoptera: Tortricidae), *Chrysoesthia hermanella* FABRICIUS, *Paltodora cytisella* CURTIS (Lepidoptera: Gelechiidae), *Aganopterix liturella* DENIS & SCHIFFERMÜLLER (Oecophoridae), *Coleophora trochilella* DUPONCHEL, *C. albitarsella* ZELLER, *C. inulae* WOCKE (Lepidoptera: Coleophoridae), *Pyrausta purpuralis* LINNAEUS (Lepidoptera: Pyraustidae) (TOBIAS 1986). YU et al. (2012) reported a large number of lepidopterous insects as hosts to *A. breviseta*: *Aethes rutilana* (HÜBNER), *Spilonota ocellana* (DENIS & SCHIFFERMÜLLER), *Stictea mygindiana* (DENIS & SCHIFFERMÜLLER) (Tortricidae), *Aganopterix kaekeritziana* LINNAEUS (Depressariidae), *Chrysoesthia hermanella* FABRICIUS, *Monochroa cytisella* (CURTIS), *Pyrausta purpuralis* (LINNAEUS) (Gelechiidae), *Coleophora albitarsella* ZELLER, *C. conyzae* ZELLER, *C. follicularis* VALLOT, *C. inulae* WOCKE, *C. lutipennella* (ZELLER), *C. trochilella* DUPONCHEL (Coleophoridae).

***Agathis fulmeki* FISCHER 1957**

Agathis fulmeki FISCHER 1957: 6-7.

Distribution in Iran: East Azarbaijan, West Azarbaijan (GHAHARI & FISCHER 2011a), Golestan (GHAHARI et al. 2011a), Guilan (GHAHARI et al. 2012a).

Distribution outside Iran: Austria (FISCHER 1968; NIXON 1986; YU et al. 2012), Bulgaria (NIXON 1986; SIMBOLOTTI & VAN ACHTERBERG 1999; YU et al. 2012), Croatia (PAPP 2009a, 2010; YU et al. 2012), Greece (PAPP 2003; YU et al. 2012), France, Morocco, Portugal, Spain (SIMBOLOTTI & VAN ACHTERBERG 1999; YU et al. 2012), Hungary, Turkey (YU et al. 2012), Mongolia (PAPP 2009b; YU et al. 2012), Serbia (PAPP 2010; YU et al. 2012).

Host record: Unknown.

***Agathis fuscipennis* (ZETTERSTEDT 1838)**

Microgaster fuscipennis ZETTERSTEDT 1838: 404; *Agathis glabricula* THOMSON 1895: 2228; *Agathis schmiedeknechti* KOKUJEV 1895: 389; *Agathis tibialis* NEES 1814 var. *annulata* FAHRINGER 1937: 447; *Agathis meridonellae* FISCHER 1957: 1; *Agathis albicostellae* FISCHER 1966: 399; *Agathis artemisiana* FISCHER 1966: 397.

Distribution in Iran: Lorestan (GHAHARI et al. 2012b), West Azarbaijan (GHAHARI et al. 2009b, in alfalfa fields).

Distribution outside Iran: Armenia, Kazakhstan, Latvia, Lithuania, Russia, Tajikistan, former Yugoslavia (KOKUJEV 1895 as *A. schmiedeknechti*; YU et al. 2012), Austria (THOMSON 1895 as *A. glabricula*; FISCHER 1957 as *A. meridonellae*; FISCHER 1966 as *A. artemisiana*; FISCHER 1968 as *A. artemisiana*, *A. albicostellae*, and *A. meridonellae*; NIXON 1986; YU et al. 2012), Bosnia-Herzegovina, Macedonia (PAPP 2009a; YU et al. 2012), Bulgaria (THOMSON 1895 as *A. glabricula*; FISCHER 1966 as *A. artemisiana*; NIXON 1986; SIMBOLOTTI & VAN ACHTERBERG 1999; YU et al. 2012), Caucasus, Central Asia, Central USSR, Siberia, Western Europe (TOBIAS 1995 as *Agathis schmiedeknechti* KOKUJEV), Croatia (PAPP 2010; YU et al. 2012), Finland (THOMSON 1895 as *A. glabricula*; FISCHER 1957, 1968; SHENEFELT 1970; YU et al. 2012), France, Hungary, the Netherlands, Poland, Tunisia (YU et al. 2012), Germany (KOKUJEV 1895 as *A. schmiedeknechti*; SZÉPLIGETI 1904 as *A. schmiedeknechti*; FISCHER 1957, 1968; SHENEFELT 1970; YU et al. 2012), Greece (PAPP 2003; YU et al. 2012), Ireland (THOMSON 1895 as *A. glabricula*; FISCHER 1966 as *A. artemisiana*; NIXON 1986; YU et al. 2012), Italy (THOMSON 1895 as *A. glabricula*; FISCHER 1957 as *A. meridonellae*; NIXON 1986 as *A. meridonellae*; YU et al. 2012), Korea (PAPP 2009c; YU et al. 2012), Mongolia (KOKUJEV 1895 as *A. schmiedeknechti*; PAPP 2009b; YU et al. 2012), Montenegro (ŽIKIĆ et al. 2010; PAPP 2010; YU et al. 2012), Serbia (KOKUJEV 1895 as *A. schmiedeknechti*; PAPP 2009a; ŽIKIĆ et al. 2010; YU et al. 2012), Spain (THOMSON 1895 as *A. glabricula*; YU et al. 2012), Sweden (THOMSON 1895 as *A. glabricula*; SZÉPLIGETI 1904; FISCHER 1957 as *A. meridonellae*; FISCHER 1966 as *A. artemisiana*; SHENEFELT 1970; NIXON 1986 as *A. artemisiana*, and *A. glabricula*; YU et al. 2012), Switzerland (SIMBOLOTTI & VAN ACHTERBERG 1999; YU et al. 2012), Turkey (THOMSON 1895 as *A. glabricula*; ZETTEL & BEYARSLAN 1992; ÇETIN ERDOĞAN & BEYARSLAN 2001; ÇETIN ERDOĞAN 2013; YU et al. 2012), UK (THOMSON 1895 as *A. glabricula*; FISCHER 1957 as *A. meridonellae*; FISCHER 1966 as *A. artemisiana*; NIXON 1986 as *A. glabricula*; YU et al. 2012).

Host record: Parasitoid of *Coleophora albicostella* DUPONCHEL, *C. troglodytella* (DUPONCHEL), *C. meridonella* KLIMESH (Lepidoptera: Coleophoridae), *Chrysoesthia sexguttella* (THUNBERG), *C. granulata* ZELLER (NIXON 1986). A large number of Lepidoptera were reported as hosts to this species: *Aproaerema anthyllidella* (HÜBNER), *Caryocolum saginella* ZELLER, *Chrysoesthia hemannella* FABRICIUS, *Scrobipalpa atriplicella* (FISCHER), *S. gallicella* CONSTANT, *S. ocellatella* (FISCHER), *Thiotricha subocellea* (STEPHENS) (Gelechiidae), *Coleophora* spp. (Coleophoridae), *Heliodines rosella* (LINNAEUS) (Heliodinidae), *Ochromolopis ictella* (HÜBNER) (Epermeniidae), *Olethreutes arbutella* (LINNAEUS), *Spilonota ocellana* (DENIS & SCHIFFERMÜLLER) (Tortricidae) (YU et al. 2012).

***Agathis glaucoptera* NEES VON ESENBECK 1834**

Agathis glaucoptera NEES 1834: 128; *?Ichneumon apicarius* VILLERS 1789: 189; *?Ichneumon pteromelas* VILLERS 1789: 196.

Distribution in Iran: Ardabil, West Azarbaijan (GHAHARI & FISCHER 2011a), Guilan (GHAHARI & FISCHER 2011b; SAKENIN et al. 2012), Mazandaran (GHAHARI et al. 2011a).

Distribution outside Iran: Azerbaijan, Germany, Hungary, Kazakhstan, Russia, Spain, Ukraine, former Yugoslavia (YU et al. 2012), Belarus, Eastern Europe (FISCHER 1968), France (SZÉPLIGETI 1904; FISCHER 1968; NIXON 1986; YU et al. 2012), Italy (SZÉPLIGETI 1904; FISCHER 1968; YU et al. 2012), Macedonia, Turkey (NIXON 1986; YU et al. 2012).

Host record: Unknown.

***Agathis lugubris* (FÖRSTER 1862)**

Cenostomus lugubris FÖRSTER 1862: 246; *Agathis minuta* NIEZABITOWSKI 1910: 81.

Distribution in Iran: Golestan (GHAHARI et al. 2010a), Ilam (GHAHARI et al. 2011c), Kermanshah (GHAHARI & FISCHER 2012).

Distribution outside Iran: Czech Republic, Finland, Hungary, Switzerland, Slovakia, Ukraine (YU et al. 2012), England (FISCHER 1968 as *A. minuta*; NIXON 1986 as *A. minuta*; YU et al. 2012), France, the Netherlands, Norway (SIMBOLOTTI & VAN ACHTERBERG 1999; YU et al. 2012), Germany, Ireland (NIXON 1986 as *A. minuta*; YU et al. 2012), Greece (PAPP 2007; YU et al. 2012), Mongolia (PAPP 2009b; YU et al. 2012), Poland (NIEZABITOWSKI 1910 as *A. minuta*; FISCHER 1968 as *A. minuta*; SHENEFELT 1970; YU et al. 2012), Sweden (NIXON 1986 as *A. minuta*), Turkey (ZETTEL & BEYARSLAN 1992; ÇETIN ERDOĞAN & BEYARSLAN 2001; BEYARSLAN et al. 2002; ÇETIN ERDOĞAN 2013; YU et al. 2012).

Host record: Parasitoid of *Coleophora glaucicolella* WOOD (Lepidoptera: Coleophoridae) on *Juncus inflexus* LINNAEUS (NIXON 1986; YU et al. 2012). It was reported on *Coleophora alticolella* ZELLER (Lepidoptera: Coleophoridae) (YU et al. 2012).

***Agathis malvacearum* LATREILLE 1805**

Agathis malvacearum LATREILLE 1805: 175; *Ichneumon panzeri* JURINE 1807: 113, Pl. 8.

Distribution in Iran: Guilan (GHAHARI et al. 2010a), Lorestan (GHAHARI et al. 2012b), Mazandaran (GHAHARI et al. 2011a), Qazvin (GHAHARI et al. 2011b).

Distribution outside Iran: Albania, Armenia, Azerbaijan, Canada, Czech Republic, Finland, Georgia, Kazakhstan, Latvia, Lithuania, Moldova, Romania, Russia, Slovakia, Slovenia, Switzerland, Tajikistan, USA, Ukraine, Uzbekistan (YU et al. 2012), Bulgaria (NIXON 1986; YU et al. 2012), Caucasus, Israel (PAPP 2011-2012), Corsica, Germany, Hungary, Italy, Mongolia, Poland, Spain, UK, former Yugoslavia (SHENEFELT 1970; YU et al. 2012), Croatia, Macedonia (PAPP 2009a; YU et al. 2012), Europe (SZÉPLIGETI 1904; FISCHER 1968), France (NIXON 1986; YU et al. 2012), Greece (NIXON 1986; PAPP 2007; YU et al. 2012), the Netherlands (SIMBOLOTTI & VAN ACHTERBERG 1999; YU et al. 2012), Turkey (NIXON 1986; ZETTEL & BEYARSLAN 1992; ÇETIN ERDOĞAN & BEYARSLAN 2001; BEYARSLAN et al. 2006; ÇETIN ERDOĞAN 2013; PAPP 2011-2012; YU et al. 2012).

Host record: Parasitoid of *Pexicopia malvella* (HÜBNER) (Lepidoptera: Gelechiidae) (NIXON 1986). It was also reported on a number of hosts: *Coleophora galbulipennella* ZELLER, *C. graminicolella* HEINEMANN (Lepidoptera: Coleophoridae), *Hellinsia didactylites* STORM (Lepidoptera: Pterophoridae), *Metzneria aestinella* ZELLER, *M. lapella* (LINNAEUS), *Pexicopia melvella* HÜBNER (Lepidoptera: Gelechiidae), *Rhyacionia resinella* (LINNAEUS) (Lepidoptera: Tortricidae), *Perilampus fulvicornis* ASHMEAD, *P. similis* CRAWFORD (Hymenoptera: Perilampidae) (YU et al. 2012).

***Agathis melpomene* NIXON 1986**

Agathis melpomene NIXON 1986: 213.

Distribution in Iran: Kermanshah (GHAHARI & FISCHER 2012), Mazandaran (GHAHARI et al. 2010a; GHAHARI & FISCHER 2011b; SAKENIN et al. 2012), Northern Iran (no locality cited) (SAKENIN et al. 2011).

Distribution outside Iran: Andorra, Austria, Italy, Poland (SIMBOLOTTI & VAN ACHTERBERG 1999), Bulgaria, Hungary (NIXON 1986; SIMBOLITTI & VAN ACHTERBERG 1999; YU et al. 2012), Mongolia (SIMBOLOTTI & VAN ACHTERBERG 1999; PAPP 2009b; YU et al. 2012), Russia (NIXON 1986), Turkey (NIXON 1986; ZETTEL & BEYARSLAN 1992; SIMBOLITTI & VAN ACHTERBERG 1999; ÇETIN ERDOĞAN & BEYASLAN 2001; YU et al. 2012).

Host record: Unknown.

***Agathis montana* SHESTAKOV 1932**

Agathis montana SHESTAKOV 1932: 261; *Microdus zaykovi* NIXON 1986: 226.

Distribution in Iran: Ardabil (GHAHARI & FISCHER 2011a), Golestan (GHAHARI et al. 2011a).

Distribution outside Iran: Andorra, France, Kyrgyzstan, UK (SIMBOLOTTI & VAN ACHTERBERG 1999; YU et al. 2012), Armenia, Azerbaijan, China, Kazakhstan, Korea, Moldova, Poland, Switzerland, Ukraine, Uzbekistan, former Yugoslavia (YU et al. 2012), Bulgaria (NIXON 1986 as *A. zaykovi*; SIMBOLOTTI & VAN ACHTERBERG 1999; YU et al. 2012), Caucasus, Israel (PAPP 2011-2012), Greece (NIXON 1986 as *A. zaykovi*; PAPP 2003; YU et al. 2012), Hungary (PAPP 2003; YU et al. 2012), Macedonia (NIXON 1986 as *A. zaykovi*; PAPP 2010; YU et al. 2012), Mongolia (PAPP 2009b; YU et al. 2012), Montenegro (ŽIKIĆ et al. 2010), Russia (FISCHER 1968 as *A. longicauda*; YU et al. 2012), Serbia (PAPP 1975 as *A. longicauda*; SIMBOLOTTI & VAN ACHTERBERG 1999; PAPP 2009a; ŽIKIĆ et al. 2010), Turkey (SIMBOLOTTI & VAN ACHTERBERG 1999; PAPP 2011-2012; YU et al. 2012), Widely distributed in former USSR (TOBIAS 1986).

Host record: Parasitoid of *Pandemis cerasana* (HÜBNER) (Lepidoptera: Tortricidae), *Pyrausta aurata* SCOPOLI (Lepidoptera: Pyralidae) (YU et al. 2012).

***Agathis nigra* NEES 1812**

Agathis nigra NEES 1812: 191-192; *A. nigra* var. *marshalli* ab. *castanea* FAHRINGER 1937: 469; *Agathis testaceipes* FISCHER 1957: 8; *A. kasachstanica* TOBIAS 1963: 872; *A. nixonii* BELOKOBYLSKIJ & JERVIS 1998: 1221-1223.

Distribution in Iran: Golestan (GHAHARI et al. 2011a), Guilan (GHAHARI et al. 2012a), Iran (no locality cited) (SHENEFELT 1970).

Distribution outside Iran: Austria (FISCHER 1957 as *A. testaceipes*; SHENEFELT 1970; NIXON 1986; YU et al. 2012), Belgium, Germany, former Yugoslavia (SHENEFELT 1970; NIXON 1986; YU et al. 2012), Bulgaria, Finland, France, Italy, the Netherlands, Russia, Sweden, Switzerland, UK (SHENEFELT 1970; YU et al. 2012), Czech Republic, Greece, Korea, Latvia, Lithuania, Macedonia, Moldova, Poland, Slovakia, Slovenia, Ukraine, Serbia (YU et al. 2012), Croatia (SHENEFELT 1970), Europe (SZÉPLIGETI 1904; FISCHER 1968), Hungary (FISCHER 1957 as *A. testaceipes*; SHENEFELT 1970; YU et al. 2012), Israel (PAPP 1970; YU et al. 2012), Kazakhstan (TOBIAS 1963 as *A. kasachstanica*; FISCHER 1968; SHENEFELT 1970; YU et al. 2012), Mongolia (TOBIAS 1963 as *A. kasachstanica*; SHENEFELT 1970; PAPP 2009b; YU et al. 2012), Morocco (SIMBOLOTTI & VAN ACHTERBERG 1999; YU et al. 2012), Spain (BELOKOBYLSKIJ & JERVIS 1998 as *A. nixonii*; YU et al. 2012), Turkey (ZETTEL & BEYARSLAN 1992; ÇETIN ERDOĞAN & BEYARSLAN 2001; YU et al. 2012).

Host record: Parasitoid of a number of host species: *Acleris quercinana* ZELLER, *Eupoecilia roseana* HAWORTH (Lepidoptera: Tortricidae), *Apodia bifractella* (DUPONCHEL), *Isophritis striatella* (DENIS & SCHIFFERMÜLLER), *Metzneria lapella* (LINNAEUS), *M. Metzneriella* STANTON, *Monochroa striatella* HÜBNER, *Scrobipalpa atriplicella* (FISCHER) (Lepidoptera: Gelechiidae), *Coleophora argentula* STEPHENS, *C. laripennella* (ZETTERSTEDT), *C. meridionella* REBEL, *C. vestianella* (LINNAEUS) (Lepidoptera: Coleophoridae), *Ortholepis betulae* GOEZE, *Ptycholoma lechearna* (LINNAEUS), *Pyrausta aurata* SCOPOLI (Lepidoptera: Pyralidae) (YU et al. 2012).

***Agathis rostrata* TOBIAS 1963**

Agathis rostrata TOBIAS 1963: 881.

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

Distribution outside Iran: Kazakhstan, Middle Asia (TOBIAS 1963), Kazakhstan, Mongolia, Poland, Switzerland, Turkey (PAPP 2009b).

***Agathis rufipalpis* NEES VON ESENBECK 1812**

Agathis rufipalpis NEES 1812: 192-193.

Distribution in Iran: East Azarbaijan (GHAHARI et al. 2009c), Kermanshah (GHAHARI & FISCHER 2012).

Distribution outside Iran: Europe (SZÉPLIGETI 1904; FISCHER 1968), widely distributed in the Mediterranean subregions (PAPP 2011-2012), Belgium, Finland, Germany, Hungary, the Netherlands, Poland, Russia, Switzerland, UK (SHENEFELT 1970; YU et al. 2012), Bulgaria, Ireland, Portugal (NIXON 1986; SIMBOLOTTI & VAN ACHTERBERG 1999; YU et al. 2012), Croatia, Macedonia, Montenegro (PAPP 2009a; YU et al. 2012), Cyprus, Sweden (NIXON 1986; YU et al. 2012), Czech Republic, Italy, Norway, Portugal, Romania, Slovakia, Slovenia, Spain, former Yugoslavia (YU et al. 2012), France (FISCHER 1968; SHENEFELT 1970; YU et al. 2012), Israel (SZÉPLIGETI 1901; PAPP 2011-2012; YU et al. 2012), Mongolia (PAPP 2009b; YU et al. 2012), Palestine (SZÉPLIGETI 1904), Turkey (NIXON 1986; ZETTEL & BEYARSLAN 1992; ÇETIN ERDOĞAN & BEYARSLAN 2001; ÇETIN ERDOĞAN et al. 2009; ÇETIN ERDOĞAN 2013; YU et al. 2012).

Host record: Parasitoid of *Coleophora alcyonipinella* KOLLAR (Lepidoptera: Coleophoridae) on *Trifolium repens* (FISCHER 1968; YU et al. 2012), *Agonopterix kaeketziana* (LINNAEUS) (Lepidoptera: Depressariidae), *Chrysoesthia hermannella* (KOLLAR) (Lepidoptera: Gelchiidae), *Pyrausta aurata* SCOPOLI (Lepidoptera: Pyralidae) (YU et al. 2012).

***Agathis syngenesiae* NEES VON ESENBECK 1812**

Agathis syngenesiae NEES 1812: 192, 194; *Vipio insularis* SNELLEN VAN VOLLENHOVEN 1873: 192, 218-219; *Agathis tadzhica* TELENGA 1955: 248; *Agathis gilvus* PAPP 1975: 302-306.

Distribution in Iran: Hamadan, Ilam (GHAHARI et al. 2010b), Lorestan (GHAHARI et al. 2012b).

Distribution outside Iran: Azerbaijan (SIMBOLOTTI & VAN ACHTERBERG 1999; YU et al. 2012), Caucasus, Middle Asia (TOBIAS 1995), Croatia (PAPP 1975 as *A. gilvus*; SIMBOLOTTI & VAN ACHTERBERG 1999; YU et al. 2012), Dagestan (FISCHER 1968; SIMBOLOTTI & VAN ACHTERBERG 1999), Denmark, Finland, Hungary, Sweden (SHENEFELT 1970; YU et al. 2012), France (SZÉPLIGETI 1904; NIXON 1986; YU et al. 2012), Germany (SZÉPLIGETI 1904; SHENEFELT 1970; NIXON 1986; YU et al. 2012), Greece, Kazakhstan (YU et al. 2012), Italy (SZÉPLIGETI 1904; SHENEFELT 1970; YU et al. 2012), Mongolia (TELENGA 1955 as *A. tadzhica*; YU et al. 2012), the Netherlands (VOLLENHOVEN 1873 as *A. insularis*; SZÉPLIGETI 1904 as *A. insularis*; FISCHER 1968 as *A. insularis*; SHENEFELT 1970; YU et al. 2012), Poland (SIMBOLOTTI & VAN ACHTERBERG 1999; YU et al. 2012), Portugal (NIXON 1986; YU et al. 2012), Russia (FISCHER 1968; SHENEFELT 1970; YU et al. 2012), Spain (SHENEFELT 1970; NIXON 1986; YU et al. 2012), Tajikistan (TELENGA 1955 as *A. tadzhica*; FISCHER 1968 as *A. tadzhica*; YU et al. 2012), Turkey (SHENEFELT 1970; NIXON 1986; ÇETIN ERDOĞAN & BEYASLAN 2001; BEYASLAN et al. 2006; YU et al. 2012), Uzbekistan (FISCHER 1968; YU et al. 2012), former Yugoslavia (SHENEFELT 1970; PAPP 1975 as *A. gilvus*; YU et al. 2012), Western and Middle Europe (FISCHER 1968).

Host record: Unknown.

***Agathis tibialis* NEES VON ESENBECK 1812**

Agathis tibialis NEES 1812:194; *A. genualis* MARSHALL 1898: 192.

Distribution in Iran: Kermanshah (GHAHARI & FISCHER 2012), Qazvin (GHAHARI et al. 2011b).

Distribution outside Iran: Austria, Azerbaijan, Czech Republic, Denmark, Finland, France, Italy, Kazakhstan, Kyrgyzstan, Lithuania, Moldova, Montenegro, Poland, Russia, Slovenia, Sweden, Switzerland, Turkey, Ukraine, Uzbekistan, former Yugoslavia (YU et al. 2012), Croatia, Macedonia, Serbia (PAPP 2009a; YU et al. 2012), Europe (SZÉPLIGETI 1904; FISCHER 1968), Germany, Hungary (SIMBOLOTTI & VAN ACHTERBERG 1999; YU et al. 2012), Greece (PAPP 2003, 2007; YU et al. 2012), Mongolia (FISCHER 1968; PAPP 2009b; YU et al. 2012), the Netherlands (NIXON 1986; SIMBOLOTTI & VAN ACHTERBERG 1999; YU et al. 2012), Siberia (SZÉPLIGETI 1904), UK (NIXON 1986; YU et al. 2012).

Host record: Parasitoid of *Apodia bifractella* (DUPONCHEL) (Lepidoptera: Gelechiidae) and possibly *Ptocheuusa paupella* (ZELLER) (Lepidoptera: Gelechiidae),

both feeding in flower heads of *Pulicaria dysenterica* LINNAEUS (NIXON 1986; YU et al. 2012), *Coleophora astragalella* ZELLER, *C. cracella* VALLOT (Lepidoptera: Coleophoridae), *Metzneria lappella* (LINNAEUS) (Lepidoptera: Gelechiidae), *Myopites inulaedysentericae* BLOT (Diptera: Tephretidae) (YU et al. 2012).

***Agathis umbellatarum* NEES VON ESENBECK 1812**

Agathis umbellatarum NEES 1812: 195; ?*A. thoracica* LUCAS 1849: 338; ?*A. brullaei* LUCAS 1849: 338; ?*A. aurantiaca* FAHRINGER 1937: 445; *Agathis kolazyi* FISCHER 1959: 2; ?*A. gussakovskiyi* TOBIAS 1963: 868.

Distribution in Iran: Golestan (GHAHARI et al. 2011a), Guilan (GHAHARI et al. 2010a), Ilam (GHAHARI et al. 2011c), Kermanshah (GHAHARI & FISCHER 2012).

Distribution outside Iran: Algeria (LUCAS 1849 as *A. brullaei* and as *A. thoracica*; SZÉPLIGETI 1904 as *A. thoracica*; YU et al. 2012), Azerbaijan, Tajikistan, Uzbekistan (TELENGA 1964; FISCHER 1968; YU et al. 2012), Bulgaria, France, Macedonia (NIXON 1986; YU et al. 2012), Croatia, France, Germany, Caucasia, Hungary, Italy, Middle Asia, Portugal, Russia, Spain (SHENEFELT 1970; YU et al. 2012), Croatia (FISCHER 1959 as *A. Kolazyi*; NIXON 1986; YU et al. 2012), Cyprus (NIXON 1986; PAPP 1998; YU et al. 2012), Europe (SZÉPLIGETI 1904; FISCHER 1968), Greece (NIXON 1986; PAPP 2003, 2007; YU et al. 2012), Israel, Kyrgyzstan, Moldova, Mongolia, Tunisia, Turkmenistan, Ukraine (YU et al. 2012), Kazakhstan (TOBIAS 1986; YU et al. 2012), N. Africa (SIMBOLOTTI & VAN ACHTERBERG 1999), Palestina (SZÉPLIGETI 1904), Turkey (NIXON 1986; ÇETIN ERDOĞAN & BEYASLAN 2001; BEYARSLAN et al. 2006; ÇETIN ERDOĞAN 2013; YU et al. 2012), former Yugoslavia (FISCHER 1959 as *A. Kolazyi*; FISCHER 1968 as *A. kolazyi*; YU et al. 2012).

Host record: Parasitoid of *Depressaria* sp. (Lepidoptera: Depressariidae), *Metzneria lappella* (LINNAEUS), *M. aestivella* ZELLER (Lepidoptera: Gelechiidae) (YU et al. 2012).

Genus *Bassus* FABRICIUS 1804

***Bassus clausthalianus* (RATZEBURG 1844)**

Ichneumon (Microdus) clausthalianus RATZEBURG 1844a: 25; *Microdus clausthalianus* (RATZEBURG) RATZEBURG 1844b: 58; *Agathis clausthalianus* (RATZEBURG) KLOET & HINCKS 1945: 234; *Microdus clausthalianus* (RATZEBURG) TOBIAS 1971: 260; *Microdus clausthalianus* (RATZEBURG) NIXON 1986: 224.

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

Distribution outside Iran: Distributed in Europe (TOBIAS 1995 as *Microdus clausthalianus* Ratzeburg; PAPP 2009b), Britain (SZÉPLIGETI 1904 as *Microdus clausthalianus* RATZEBURG; KLOET & HINCKS 1945 as *Agathis clausthalianus*; NIXON 1986 as *Microdus clausthalianus*), Germany (SZÉPLIGETI 1904 as *Microdus clausthalianus* RATZEBURG; NIXON 1986 as *Microdus clausthalianus*), Ireland, the Netherlands (NIXON 1986 as *Microdus clausthalianus*), Sweden (SZÉPLIGETI 1904 as *Microdus clausthalianus* RATZEBURG), Mongolia (PAPP 1971, 2009b), Russia (TOBIAS 1971 as *Microdus clausthalianus*; TOBIAS 1986).

Host record: Parasitoid of *Agonopterix atomella* DENIS & SCHIFFERMÜLLER, *A. scopariella* HEINEMANN (Lepidoptera: Oecophoridae), *Pseudohermias clausthiana*

SAX, *Epinotia tedella* CLERCK, *Spilonota ocellana* FABRICIUS, *Pammene gallicana* (GUENEE), *Epiblema scutulana* DENIS & SCHIFFERMÜLLER, *Archips oporana* LINNAEUS (TOBIAS 1986; YU et al. 2012), *Dichelia histrionana* (FRÖLICH), *Dichrorampha acuminatana* LIENIG & ZELLER, *Epinotia sordidana* HÜBNER, *Olethreutes hercyniana* TREITSCHKE, *Pseudohermenias abietana* FABRICIUS (Lepidoptera: Tortricidae) (YU et al. 2012).

***Bassus dimidiator* (NEES VON ESENBECK 1834)**

Microdus dimidiator NEES 1834: 146; *Microdus cingulator* RATZBURG 1852: 46; *Microdus laticinctus* CRESSON 1873: 53; *Microdus ocellanae* RICHARDSON 1913: 211.

Distribution in Iran: East Azarbaijan (GHAHARI & FISCHER 2011a), Tehran (GHAHARI et al. 2011a).

Distribution outside Iran: Armenia, Azerbaijan, Belarus, Bulgaria, China, Finland, Italy, Kazakhstan, Latvia, Lithuania, Moldova, Portugal, Russia, Switzerland, Turkey, Ukraine, UK (YU et al. 2012), Canada (CRESSON 1873 as *Microdus laticinctus*; RICHARDSON 1913 as *Microdus ocellanae*; YU et al. 2012), Caucasus, Western Europe (TOBIAS 1986 as *Microdus dimidiator* NEES), Czech Republic, Slovakia (RATZBURG 1852 as *Microdus cingulator*; YU et al. 2012), France, Greece, The Netherlands, Poland, former Yugoslavia (NIXON 1986 as *Microdus dimidiator*; SIMBOLOTTI & VAN ACHTERBERG 1992; YU et al. 2012), Germany (RATZBURG 1852 as *B. cingulator*; SZÉPLIGETI 1904 as *Microdus cingulator*, and *M. dimidiator*; NIXON 1986 as *Microdus dimidiator*; SIMBOLOTTI & VAN ACHTERBERG 1992; YU et al. 2012), Hungary (SZÉPLIGETI 1904 as *Microdus dimidiator*; YU et al. 2012), USA (CRESSON 1873 as *Microdus laticinctus*; YU et al. 2012).

Host record: Parasitoid of *Tortrix viridana* LINNAEUS and *Spilonota ocellana* (DENIS & SCHIFFERMÜLLER) (Lepidoptera: Tortricidae) (NIXON 1986; SIMBOLOTTI & VAN ACHTERBERG 1992; TOBIAS 1995; YU et al. 2012). It was also reported on *Pandemis heparana* DENIS & SCHIFFERMÜLLER, *P. cerasana* HÜBNER, *Archips rosana* LINNAEUS, *A. crataegana* (HÜBNER), *Croesia bergmaniniana* LINNAEUS, *Epinotia tetraquetra* HOWARTH, *Parasyndenus histrionana* LINNAEUS (Lepidoptera: Tortricidae), *Recurvaria nanella* DENIS & SCHIFFERMÜLLER (Lepidoptera: Gelechiidae) (TOBIAS 1986; YU et al. 2012), *Acleris forsskaleana* (LINNAEUS), *A. variana* (FERNALD), *Aleimma loeflingiana* (LINNAEUS), *Archips cerasivorana* (FITCH), *A. xylosteana* (LINNAEUS), *Argyrotaenia velutiana* (WALKER), *Choristineura rosaceana* (HARRIS), *Cydia latiferreana* (WALSINGHAM), *Dichelia histrionana* (FRÖLICH), *Epiblema scutulana* (DENIS & SCHIFFERMÜLLER), *Grapholita interstinctana* (CLEMENS), *G. molesta* (BUSCK), *Hedya nubiferana* (HAWORTH), *Recurvaria leucatella* (CLERCK), *Tortrix viridana* (LINNAEUS) (Lepidoptera: Tortricidae), *Blastadacna atra* (Lepidoptera: Blastadacnidae), *Coleophora spinella* SCHRANK (Lepidoptera: Coleophoridae), *Yponomeuta malinella* ZELLER (Lepidoptera: Yponomeutidae), *Anthonomus pomorum* (LINNAEUS) (Coleoptera: Curculionidae), *Gelis tenellus* (SAY), *Scambus hispae* (HARRIS) (Hymenoptera: Ichneumonidae) (YU et al. 2012).

***Bassus linguarius* (NEES VON ESENBECK 1812)**

Microdus linguarius NEES 1812: 149; *Agathis kaszabi* PAPP 1971: 334-335.

Distribution in Iran: Ardabil (GHAHARI et al. 2009c), Lorestan (GHAHARI et al. 2012b).

Distribution in Iran: Armenia, Kazakhstan, Poland, Slovenia, Spain, Switzerland (YU et al. 2012), Austria, Russia (SHENEFELT 1970), Belgium, Finland, former Yugoslavia (SHENEFELT 1970; YU et al. 2012), Bulgaria, France, Italy (SIMBOLOTTI & VAN ACHTERBERG 1992; YU et al. 2012), Croatia (PAPP 2009a; YU et al. 2012), Germany (SZÉPLIGETI 1904 as *Microdus linguarius*; SHENEFELT 1970; YU et al. 2012), Greece (PAPP 2007), Hungary (SHENEFELT 1970; NIXON 1986 as *Microdus linguarius*; YU et al. 2012), Mongolia (PAPP 1971 as *Agathis kaszabi*; PAPP 2009b; YU et al. 2012), the Netherlands (SHENEFELT 1970; SIMBOLOTTI & VAN ACHTERBERG 1992; YU et al. 2012), UK (SZÉPLIGETI 1904 as *Microdus linguarius*; NIXON 1986 as *Microdus linguarius*; YU et al. 2012), Turkey (ÇETIN ERDOĞAN & BEYASLAN 2001; ÇETIN ERDOĞAN 2013; YU et al. 2012).

Host record: Parasitoid of *Coleophora* spp. (Lepidoptera: Coleophoridae) (YU et al. 2012).

Genus *Camptothlipsis* ENDERLEIN 1920

***Camptothlipsis armeniaca* (TELENGA 1955)**

Baeognatha armeniaca TELENGA 1955: 300.

Distribution in Iran: Guilan (GHAHARI et al. 2010a), Kermanshah (GHAHARI & FISCHER 2012 as *Baeognatha armeniaca* (Telenga)), East Azarbaijan (GHAHARI et al. 2009b as *Bassus armeniacus* (TELENGA)).

Distribution outside Iran: Armenia, Azerbaijan, Hungary, Italy, Kazakhstan, Moldova, Switzerland, Ukraine (NIXON 1986; ÇETIN ERDOĞAN & BEYARSLAN 2001; YU et al. 2012), Austria (NIXON 1986; ÇETIN ERDOĞAN & BEYARSLAN 2001; YU et al. 2012), Caucasus (TOBIAS 1986), Russia (NIXON 1986; TOBIAS 1986; ÇETIN ERDOĞAN & BEYARSLAN 2001; YU et al. 2012), Turkey (NIXON 1986; ÇETIN ERDOĞAN & BEYARSLAN 2001; YU et al. 2012).

Host record: Parasitoid of *Grapholitha funebrana* TREITSCHKE (Lepidoptera: Tortricidae), *Anarsia eleagnella* KUZNETZOV, *Recunaria nanella* DENIS & SCHIFFERMÜLLER (Lepidoptera: Gelechiidae) (TOBIAS 1986; YU et al. 2012), *Anarsia lineatella* ZELLER (Lepidoptera: Gelchiidae), *Cydia funebrana* (TREITSCHKE) (Lepidoptera: Tortricidae), *Recurvia leucatella* (CLERCK) (Lepidoptera: Gelchiidae) (YU et al. 2012).

Genus *Lyptopylus* FÖRSTER 1862

***Lyptopylus rufipes* (NEES VON ESENBECK 1812)**

Microdus rufipes NEES 1812: 189; *Braunsia germanica* ENDERLEIN 1904: 436; *Bassus diversus* MUESEBECK 1933: 48; *Microdus amurensis* SHESTAKOV 1940.

Distribution in Iran: East Azarbaijan (RANJBAR AGHDAM & FATHIPOUR 2010 as *Bassus rufipes* (NEES 1812)).

Distribution outside Iran: Widely distributed in the Palaearctic region from Sweden to Turkey in Europe, and west to Japan in Asia. Introduced into

Argentina and USA: Armenia, Australia, Austria, Azerbaijan, Belgium, Bulgaria, Czech Republic, Finland, France, Georgia, Hungary, Italy, Kazakhstan, Korea, Kyrgyzstan, Lithuania, Moldova, the Netherlands, Poland, Romania, Slovakia, Sweden, Switzerland, Turkmenistan, Ukraine, UK (YU et al. 2012), Germany (ENDERLEIN 1904 as *Braunsia germanica*; YU et al. 2012), Japan (SHARKEY 1996; YU et al. 2012), Russia (SHESTAKOVA 1940 as *Microdus amurensis*; SHARKEY 1996; YU et al. 2012), USA (MUESEBECK 1933 as *Bassus diversus*; YU et al. 2012).

Host record: Parasitoid of codling moth, *Cydia pomonella* (LINNAEUS) (Lepidoptera: Tortricidae) (RANJBAR AGHDAM & FATHIPOUR 2010 as *Bassus rufipes*). SHARKEY (1996) reported the following hosts that belong to the order Lepidoptera: Gelechiidae: *Gelechia nigra* (HAWORTH); Coleophoridae: *Coleophora gryphipennella* (HÜBNER); Pieridae: *Gonepteryx rhamni* (LINNAEUS); Pyralidae: *Acrobasis consociella* (HÜBNER); Tortricidae: *Apotomis capreana* (HÜBNER), *A. semifasciana* (HAWORTH), *Cacoecimorpha pronubana* (HÜBNER), *Cydia pomonella* (LINNAEUS), *Grapholitha molesta* (BUSCK), *Gyponoma dealbana* (FRÖLICH), *G. oppressana* (TREITSCHKE), *G. sociana* (HAWORTH), *Hedya dimioalba* (RETZIUS), *H. nubiferana* (HAWORTH), *Rhyacionia buotiana* (DENIS & SCHIFFERMÜLLER), *Tortrix viridana* LINNAEUS; Yponomeutidae: ?*Yponomeuta malinellus* ZELLER.

Genus *Therophilus* WESMAEL 1837

***Therophilus tumidulus* (NEES VON ESENBECK 1812)**

Microdus tumidulus NEES 1812: 189; *Microdus annae* ENDERLEIN 1908: 223; *Microdus tumidulus* var. *ruficoxis* FAHRINGER 1937: 509; *Microdus aino* WATANABE 1937: 92; *Microdus bicolor* SHESTAKOV 1940: 15; *Microdus victoris* TELENGA 1955: 288; *Agathis shestakovi* SHENEFELT 1970: 355; *Microdus anuphrievi* TOBIAS 1986: 288.

Distribution in Iran: Golestan (GHAHARI et al. 2011a), Kermanshah (GHAHARI & FISCHER 2012), Lorestan (GHAHARI et al. 2012b), Mazandaran (GHAHARI et al. 2010a).

Distribution outside Iran: This species was reported to be widespread in most regions of Europe and temperate Asia (SHARKEY 1996). Also, widely distributed in the western Palaearctic region (SIMBOLOTTI & VAN ACHTERBERG 1992 as *Bassus tumidulus* (NEES)): Austria, Azerbaijan, Belarus, Belgium, Bulgaria, China, Croatia, Czech Republic, Finland, Hungary, Korea, Latvia, Lithuania, Moldova, Morocco, the Netherlands, Norway, Poland, Portugal, Slovakia, Spain, Switzerland (YU et al. 2012), France, Ireland, Italy, UK, former Yugoslavia (NIXON 1986 as *Microdus tumidulus*; YU et al. 2012), Europe, Siberia (SZÉPLIGETI 1904 as *Microdus tumidulus*; YU et al. 2012), Far East (TELENGA 1955, TOBIAS 1986 as *Microdus victoris* TELENGA), Georgia, Ukraine (IVANOV 1899 as *Eumicrodus intermedius*; YU et al. 2012), Germany (ENDERLEIN 1908 as *Microdus annae*; NIXON 1986 as *Microdus tumidulus*; YU et al. 2012), Greece (NIXON 1986 as *Microdus tumidulus*; PAPP 2003 as *Bassus tumidulus* (NEES); YU et al. 2012), Japan (WATANABE 1937 as *Microdus aino*; SHARKEY 1996 as *Bassus tumidulus*; YU et al. 2012), Kazakhstan (TELENGA 1955 as *Microdus victoris* TELENGA; TOBIAS 1986 as *Microdus victoris* TELENGA; YU et al. 2012), Mongolia (PAPP 2009b as *Bassus tumidulus* (NEES); YU et al. 2012), Russia (IVANOV 1899 as *Eumicrodus intermedius*; SZÉPLIGETI 1904 as *Microdus intermedius*; SHESTAKOV 1940 as *Microdus bicolor*; TELENGA 1955 as *Microdus victoris* TELENGA; TOBIAS 1986 as *Microdus anuphrievi*; YU et al. 2012),

Serbia (ŽIKIĆ et al. 2010 as *Bassus tumidulus*), Sweden (SZÉPLIGETI 1904 as *Microdus tegularis*; YU et al. 2012), Turkey (BEYARSLAN et al. 2006, ÇETIN ERDOĞAN 2013 as *Bassus tumidulus*; YU et al. 2012).

Host record: Parasitoid of *Dichrorhampha acuminatana* (LIENIG & ZELLER) (Lepidoptera : Tortricidae) (NIXON 1986), *Procheuusa inopdla* ZELLER (Lepidoptera : Gelechiidae), *Lobesia botrana* DENIS & SCHIFFERMÜLLER, *Gypsonoma minutana* HÜBNER, *Grapholitha compositella* FABRICIUS, *G. pallifrontana* ZELLER, *G. dilineana* WALKER, *Sparganothis pilleriana* DENIS & SCHIFFERMÜLLER, *Rhopobota ustomaculana* CURTIS (Lepidoptera : Tortricidae), *Agonopterix atomella* DENIS & SCHIFFERMÜLLER (Lepidoptera : Oecophoridae), *Mompha epilobiella* DENIS & SCHIFFERMÜLLER (Lepidoptera : Momphidae) (TOBIAS 1995; YU et al. 2012), *Choristoneura funiferana* CLEMENS, *Cydia compositella* (FABRICIUS), *C. delineana* WALKER, *C. pallifrontana* LIENIG & ZELLER, *C. splendana* HÜBNER, *C. tenebrosiana* DUPONCHEL, *Epiblema cirsiana* ZELLER, *E. scutulana* DENIS & SCHIFFERMÜLLER, *Lathronymphala strigana* FABRICIUS, *Lobesia euphorbianus* (FREYER) (Lepidoptera: Tortricidae), *Utetheisa jacobaeae* (LINNAEUS) (YU et al. 2012). According to SIMBOLOTTI & VAN ACHTERBERG (1992), Tortricidae: *Cydia tenebrosana* (DUPONCHE) on *Rosa*, *Dichrorhampha acuminatana* (LIENIG & ZELLER) on *Chrysanthemum leucanthemum* LINNAEUS, *Epiblema scutellana* (DENIS & SCHIFFERMÜLLER) on *Cirsium*, *E. cirsiana* (ZELLER) on *Centurea nigra* LINNAEUS, and *Lathronympha strigata* (FABRICIUS) on *Hypericum*.

Tribe Cremnoptini SHARKEY 1992

Genus *Cremnops* FÖRSTER 1862

***Cremnops richteri* HEDWIG 1957**

Cremnops richteri HEDWIG 1957: 115.

Distribution in Iran: Sistan & Baluchestan (HEDWIG 1957).

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

Host record: Unknown.

Tribe Disophriini SHARKEY 1992

Genus *Coccygidium* SAUSSURE 1892

***Coccygidium transcaspicum* (KOKUJEV 1902)**

Ahngeria transcaspica KOKUJEV 1902: 6; *Ahngeria opaca* SHESTAKOV 1928: 226.

Distribution in Iran: Iran (no locality cited) (TOBIAS 1986).

Distribution outside Iran: Afghanistan, Japan (YU et al. 2012), Israel (PAPP 2011-2012; YU et al. 2012), Turkmenistan (TOBIAS 1986; YU et al. 2012), Uzbekistan (SHESTAKOV 1928 as *Ahngeria opaca*; TOBIAS 1986 as *Zelomorpha transcaspica*; YU et al. 2012), Japan, Korea (SHARKEY 1996), Russia (KOKUJEV 1902 as *Ahngeria transcaspica*).

Host record: Unknown.

Genus *Disophrys* FÖRSTER 1862

Disophrys caesa (KLUG 1835)

Agathis caesa KLUG in WALTJ 1835: 89; *A. initiator* FONSCOLOMBE 1846: 40; *A. erythromelas* BRULLÉ 1846: ?; *A. imperialis* COSTA 1888: 9; *Disophrys caesus* (KLUG) MARSHALL 1890: 574; *Disophrys anthracina* KREICHBAUMER 1898: 185.

Distribution in Iran: Lorestan (GHAHARI et al. 2012b), Iran (no locality cited) (KREICHBAUMER 1898 as *Disophrys anthracina*).

Distribution outside Iran: Algeria (BRULLÉ 1846 as *Agathis erythromelas*; LUCAS 1849 as *A. bovaei*; SZÉPLIGETI 1904; SHENEFELT 1970; YU et al. 2012), Armenia, Azerbaijan, Bulgaria, Germany, Morocco, Portugal, Russia, Switzerland (YU et al. 2012), Austria (SHENEFELT 1970; NIXON 1986), Caucasia, North Africa, South Western Europe (TOBIAS 1995), Croatia (PAPP 2009a, 2010; YU et al. 2012), France (FONSCOLOMBE 1846 as *A. initiator*; SZÉPLIGETI 1904 as *A. initiator*; SHENEFELT 1970; YU et al. 2012), Greece, Iberian Peninsula (NIXON 1986), Hungary (NIXON 1986; YU et al. 2012), Israel (PAPP 2011-2012), Italy (COSTA 1888 as *Agathis imperialis*; SZÉPLIGETI 1904 as *A. imperialis*; SHENEFELT 1970; YU et al. 2012), Lithuania (SZÉPLIGETI 1904), Romania (SHENEFELT 1970; YU et al. 2012), Serbia (FONSCOLOMBE 1846 as *A. initiator*; PAPP 2010; ŽIKIĆ et al. 2010 as *Disophrys initiator*; YU et al. 2012), Spain (WALTJ 1835 as *Agathis caesa*; SPINOLA 1843 as *Agathis baetica*; KREICHBAUMER 1898 as *Disophrys anthracina*; SZÉPLIGETI 1904 as *D. anthracina*; SHENEFELT 1970; YU et al. 2012), Turkey (NIXON 1986; ÇETIN ERDOĞAN & BEYARSLAN 2001; ÇETIN ERDOĞAN 2013; YU et al. 2012), West and Middle Asia (SHENEFELT 1970), former Yugoslavia (FONSCOLOMBE 1846 as *A. initiator*; NIXON 1986; YU et al. 2012).

Host record: Unknown.

Disophrys dissors KOKUJEV 1903

Disophrys dissors KOKUJEV 1903: 245.

Distribution in Iran: Mazandaran (GHAHARI et al. 2009a).

Distribution outside Iran: Azerbaijan, Hungary, Moldova, Ukraine (YU et al. 2012; PAPP 2011-2012), Caucasus, Central Asia, Western Europe (TOBIAS 1986), Israel, Turkey (PAPP 2011-2012), Macedonia (PAPP 2010; YU et al. 2012), Serbia (PAPP 2009a; YU et al. 2012), Turkmenistan, former Yugoslavia (YU et al. 2012), Transcaspia (KOKUJEV 1903).

Host record: Unknown.

Disophrys inculcatrix (KRIECHBAUMER 1898)

Disophrys inculcatrix KRIECHBAUMER 1898: 181-185.

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

Distribution outside Iran: Azerbaijan, Hungary, Russia, Ukraine (KRIECHBAUMER 1898 as *Disophrys inculcatrix*; YU et al. 2012).

Host record: Unknown.

Tribe Earini SHARKEY 1992**Genus Earinus WESMAEL 1837****Earinus elator (FABRICIUS 1804)**

Banchus elator FABRICIUS 1804: 128; *Microdus nitidulus* NEES 1814: 187; *Microdus thoracicus* NEES 1834: 143; ?*Agathis major* FONSCOLOMBE 1846: 39; *Earinus nitidilis* (NEES) REINHARD 1867: 351; *Earinus thoracicus* (NEES) SHENEFELT 1970: 407.

Distribution in Iran: East Azarbaijan (GHAHARI & FISCHER 2011a), Golestan (GHAHARI et al. 2011a).

Distribution outside Iran: Widespread over most of the northern Palaearctic region (SHARKEY 1996), Austria, Germany, Ireland, Sweden, UK (NIXON 1986; YU et al. 2012), Azerbaijan, Belgium, Czech Republic, Finland, Hungary, Italy, Japan, Korea, Latvia, Lithuania, Moldova, the Netherlands, Norway, Poland, Russia, Slovakia, Switzerland, Turkey, former Yugoslavia (YU et al. 2012), Caucasus to Far East in southern Siberia (TOBIAS 1986 as *E. nitidulus* (NEES)), Central and South USSR, Western Europe (TOBIAS 1995 as *E. thoracicus* (NEES)), Croatia (PAPP 2010; YU et al. 2012), Europe (SZÉPLIGETI 1904 as *E. nitidulus*), France (SZÉPLIGETI 1904 as *A. major*; YU et al. 2012), Japan (SHARKEY 1996), France (FONSCOLOMBE 1846 as *Agathis major*).

Host record: Parasitoid of *Agrochola circellaris* (HUFNAGEL), *A. lota* (CLERCK) on *Salix caprea*, *Aethmia centrago* (HOWARTH) (Lepidoptera: Noctuidae) (NIXON 1986; SHARKEY 1996), *Aconita lucida* (HUFNAGEL), *Dichonia convergens* (DENIS & SCHIFFERMÜLLER) (Lepidoptera: Noctuidae), *Alsophida aescularia* (DENIS & SCHIFFERMÜLLER), *Lycia hirtarius* CLERCK (Lepidoptera: Geometridae), *Gracillaria syringella* (FABRICIUS) (Lepidoptera: Gracillariidae) (TOBIAS 1986; YU et al. 2012), *Aethmia ambusta* (DENIS & SCHIFFERMÜLLER), *Conistra vaccinii* (LINNAEUS), *Lithophane ornitopus* (HUFNAGEL), *Orthosia stabilis* (DENIS & SCHIFFERMÜLLER) (Lepidoptera: Noctuidae) (YU et al. 2012).

Subfamily Brachistinae FÖRSTER 1862**Genus Eubazus NEES VON ESENBECK 1812****Eubazus (Brachistes) minutus (RATZEBURG 1848)**

Brachistes minutus RATZEBURG 1848: 28.

Material examined: East Azarbaijan province: Kaleybar (1024 m), 17.viii.2010. **New record for Iran.**

Distribution outside Iran: A sporadic to frequent species in Europe (PAPP 2011-2012). Azerbaijan (TOBIAS 1986; PAPP 2011-2012; YU et al. 2012), Bulgaria, China, Czech Republic, Finland, Greece, Italy, Norway, Poland, Slovakia, Switzerland, UK (YU et al. 2012), Germany (SZÉPLIGETI 1904 as *Calyptus minutus* RATZEBURG under Calyptinae; YU et al. 2012), Hungary, Ukraine (PAPP 2011-2012; YU et al. 2012), Israel (PAPP 2011-2012), Western Europe (TOBIAS 1986).

Host record: Parasitoid of *Rhynchaenus alni* (LINNAEUS), *R. fagi* (WALKER), *R. quercus* (LINNAEUS) (Coleoptera: Curculionidae) (TOBIAS 1986; YU et al. 2012), *Protapion apricans* (HERBST) (Coleoptera: Brentidae), *Baryscapus endemus* (WALKER),

Pediopius sanlius (WALKER) (Hymenoptera: Eulophidae) (YU et al. 2012).

***Eubazus (Brachistes) tibialis* (HALIDAY 1835)**

Helcon (Calyptus) tibialis HALIDAY 1835: 130; *Brachistes uncigenis* WESMAEL 1835: 113

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

Distribution outside Iran: Belgium, Bulgaria, Croatia, France, Germany, Hungary, Ireland, Italy, Latvia, Lithuania, Moldova, the Netherlands, Norway, Poland, Russia, Slovakia, Sweden, Switzerland, Ukraine, United Kingdom, former Yugoslavia (YU et al. 2012), Caucasus, Eastern Siberia, Western Europe (TOBIAS 1995), Europe (SZÉPLIGETI 1904 as *Calyptus tibialis* HALIDAY under Calyptinae), Finland (TOBIAS 1986 as *Aliolus novatibialis* SHENEFELT; YU et al. 2012), Macedonia, Montenegro (PAPP 2010), Mongolia (PAPP 2005), Serbia (ŽIKIĆ et al. 2000 under Helconinae; YU et al. 2012), Turkey (GÜÇLÜ & ÖZBEK 2011).

Host record: Parasitoid of *Anobium* sp. (Coleoptera: Anobiidae), *Diprion palliduta* (Coleoptera: Attelebidae) (GÜÇLÜ & ÖZBEK 2011), *Bytiscus betulae* (LINNAEUS), *B. populi* LINNAEUS (Coleoptera: Attelebidae) (TOBIAS 1995; GÜÇLÜ & ÖZBEK 2011; YU et al. 2012), *Gilpinia pallida* (KLUG) (Hymenoptera: Diprionidae) (YU et al. 2012).

Genus *Foersteria* SZÉPLIGETI 1896

***Foersteria longicauda* ACHTERBERG 1990**

Foersteria longicauda ACHTERBERG 1990: 10.

Distribution in Iran: West Azarbaijan (GHAHARI & FISCHER 2011a; YU et al. 2012).

Distribution outside Iran: Turkey (VAN ACHTERBERG 1990; GÜÇLÜ & ÖZBEK 2011; YU et al. 2012).

Host record: Unknown.

Genus *Schizoprymnus* FÖRSTER 1862

***Schizoprymnus angustatus* (HERRICH-SCHÄFFER 1838)**

Sigalphus angustatus HERRICH-SCHÄFFER 1838: 153.

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

Distribution outside Iran: Azerbaijan, Kazakhstan, Western Europe (TOBIAS 1986; YU et al. 2012), Finland, Hungary, Italy, Lithuania, Moldova, Russia, Spain, Sweden, Switzerland, Ukraine (YU et al. 2012), Germany (HERRICH-SCHÄFFER 1838 as *Sigalphus angustatus*; YU et al. 2012), Macedonia (PAPP 2010), Mongolia (PAPP 1967, 2005; YU et al. 2012), Russia (BELOKOBYLSKIJ 1998; YU et al. 2012), Turkey (GÜÇLÜ & ÖZBEK 2011).

Host record: Unknown.

***Schizoprymnus elongatus* (SZÉPLIGETI 1898)**

Sigalphus elongatus SZÉPLIGETI 1898: 383.

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

Distribution outside Iran: Afghanistan, Armenia, Belarus, Czech Republic, Georgia, Hungary, Lithuania, Moldova (YU et al. 2012), Azerbaijan, Kazakhstan (TOBIAS 1986; YU et al. 2012), Hungary (SZÉPLIGETI 1898 as *Sigalphus elongatus*; PAPP 2005; YU et al. 2012), Mongolia (PAPP 2005), Turkey (GÜÇLÜ & ÖZBEK 2011).

Host record: Unknown.

***Schizoprymnus excisus* (ŠNOFLÁK 1953)**

Triaspis excisus ŠNOFLÁK 1953: 167, 168; *Schizoprymnus arcuatus* TOBIAS 1976: 163, 176.

Distribution in Iran: Guilan (GHAHARI & FISCHER 2011b; SAKENIN et al. 2012), Kerman (GHAHARI et al. 2010b).

Distribution outside Iran: Armenia, Bohemia, Hungary, Kazakhstan, Russia, Serbia, Ukraine (PAPP 2005; YU et al. 2012), Caucasus (TOBIAS 1976 as *Schizoprymnus arcuatus*), Czech Republic (ŠNOFLÁK 1953 as *Triaspis excisus*; YU et al. 2012), Mongolia (PAPP 1971 as *Triaspis rimulosis* THOMSON; PAPP 2005), former Yugoslavia (YU et al. 2012).

Host record: Unknown.

***Schizoprymnus nigripes* (THOMSON 1892)**

Sigalphus nigripes THOMSON 1892: 16.

Distribution in Iran: Sistan & Baluchestan (SAMIN et al. 2011).

Distribution outside Iran: Caucasus, Western Europe (TOBIAS 1986), Croatia (PAPP 2009a), Czech Republic, Hungary, Kazakhstan, Moldova, Sweden, Switzerland (YU et al. 2012), Kazakhstan (TOBIAS 1986; YU et al. 2012), Korea, Russia (BELOKOBYLISKIJ 1998; YU et al. 2012), Mongolia (PAPP 2005; YU et al. 2012), Turkey (GÜÇLÜ & ÖZBEK 2011), Sweden (THOMSON 1892 as *Sigalphus nigripes*).

Host record: Larval parasitoid of *Acentrus histrio* (FALD) (Coleoptera: Curculionidae) (GÜÇLÜ & ÖZBEK 2011).

***Schizoprymnus obscurus* (NEES 1816)**

Sigalphus obscurus NEES 1816: 252.

Distribution in Iran: Guilan (GHAHARI et al. 2012a), Isfahan (GHAHARI et al. 2011d), Iran (no locality cited) (PAPP 2011-2012).

Distribution outside Iran: Austria, Belgium, Bulgaria, Czech Republic, Denmark, Finland, France, Georgia, Germany, Hungary, Italy, Lithuania, Moldova, Morocco, the Netherlands, Norway, Poland, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Tunisia, Turkmenistan, Ukraine, UK, former Yugoslavia (YU et al. 2012), Caucasus, Central Asia, Southern Siberia up to Far East, Northern Africa (TOBIAS 1986), Greece (PAPP 2007, 2011-2012; YU et al. 2012), Israel (PAPP 2011-2012),

Kazakhstan, Russia (TOBIAS 1986; YU et al. 2012), Macedonia (PAPP 2010; YU et al. 2012), Mongolia (PAPP 1967, 2005; TOBIAS 1986; YU et al. 2012), Tunisia (PAPP 1981); Turkey (GÜÇLÜ & ÖZBEK 2011).

Host record: Parasitoid of *Apion* sp. (*Ceratapion*) *carduorum* KIRBY; *A. craceae* LINNAEUS; *A. semivittatum* GYLLENHAL; *Ceutorhynchus pleurostigma* MARSHAM; *C. echii* (LINNAEUS); *C. assimilis* PAYK.; *C. contractus* MARSHAM; *Gymnetron noctis* HERBST; *G. collinus* GYLLENHAL; *G. antirrhini* PAYKULL; *Orchestes* sp. (Coleoptera: Curculionidae) (GÜÇLÜ & ÖZBEK 2011), *Ceuthorrhynchus picitarsis* GYLLENHAL, *C. sulcicollis* (GYLLENHAL) (Coleoptera: Curculionidae) (TOBIAS 1986; GÜÇLÜ & ÖZBEK 2011; YU et al. 2012), *Protapion apricans* (HERBST) (Coleoptera: Brentidae), *Mordellistena parvula* GYLLENHAL (Coleoptera: Mordellidae) (YU et al. 2012).

***Schizoprymnus pallidipennis* (HERRICH-SCHÄFFER 1838)**

Sigalphus pallidipennis HERRISCH-SCHÄFFER 1838: 153.

Distribution in Iran: Mazandaran (GHAHARI & FISCHER 2011b; SAKENIN et al. 2012).

Distribution outside Iran: Armenia, China, Hungary, Kazakhstan, Spain, Switzerland, Tajikistan (YU et al. 2012), Croatia, Macedonia (PAPP 2010), Germany (HERRISCH-SCHÄFFER 1838 as *Sigalphus pallidipennis*; YU et al. 2012); Mongolia (PAPP 1967 as *S. crassiceps* 2005), Russia (BELOKOBYLSKIJ 1998; YU et al. 2012).

Host record: Parasitoid of *Mordellistena parvula* GYLLENHAL (Coleoptera: Mordellidae) (YU et al. 2012).

***Schizoprymnus parvus* (THOMSON 1892)**

Sigalphus parvus THOMSON 1892: 1707.

Distribution in Iran: Ardabil, West Azarbaijan (RASTEGAR et al. 2012), Isfahan (GHAHARI et al. 2011d), Northern Khorasan (SAMIN et al. 2011).

Distribution outside Iran: Bosnia-Herzegovina (PAPP 2010), Central Asia, Central and Northern Europe, Western Siberia (TOBIAS 1986), Croatia, Macedonia (PAPP 2010; YU et al. 2012), Czech Republic, Finland, Germany, Hungary, the Netherlands, Slovakia, former Yugoslavia (YU et al. 2012), Greece (PAPP 2007; YU et al. 2012), Kazakhstan (TOBIAS 1986; YU et al. 2012), Mongolia (PAPP 1971 as *Triaspis obscurus* var. *curtiradialis* PAPP; PAPP 2005; YU et al. 2012), Sweden (THOMSON 1892 as *Sigalphus parvus*; YU et al. 2012), Turkey (GÜÇLÜ & ÖZBEK 2011).

Host record: Unknown.

***Schizoprymnus pullatus* (DAHLBOM 1833)**

Chelonus pullatus DAHLBOM 1833; *Sigalphus rufipes* HERRISCH-SCHÄFFER 1838: 153; *Schizoprymnus globosus* SZÉPLEGETI 1898; *Schizoprymnus bimaculatus* TELENGA 1941.

Distribution in Iran: Iran (no locality cited) (SZÉPLEGETI 1898 as *S. globosus* SZÉPLEGETI 1898).

Distribution outside Iran: Azerbaijan, Bulgaria, Croatia, Czech

Republic, Georgia, Germany, Hungary, Kazakhstan, Moldova, Poland, Slovakia, Ukraine, Uzbekistan (YU et al. 2012), Russia (SZÉPLIGETI 1898 as *S. globosus*; TELENGA 1941 as *S. bimaculatus*; YU et al. 2012), Sweden (HERRISCH-SCHÄFFER 1838 as *Sigalphus rufipes*; YU et al. 2012).

Host record: Unknown.

***Schizoprymnus terebralis* (ŠNOFLÁK 1953)**

Triaspis terebralis ŠNOFLÁK 1953.

Distribution in Iran: East Azarbaijan (SAKENIN et al. 2009), Isfahan (GHAHARI et al. 2010b).

Distribution outside Iran: Armenia, Azerbaijan, Bulgaria, Greece, Hungary, Moldova, Serbia, Ukraine, former Yugoslavia (YU et al. 2012), Central Asia, Transcaucasia (TOBIAS 1986 as *S. terebrans* ŠNOFLÁK), Czech Republic, Slovakia (ŠNOFLÁK 1953 as *Triaspis terebralis*; TOBIAS 1986 as *S. terebrans* ŠNOFLÁK; YU et al. 2012), Macedonia (PAPP 2010; YU et al. 2012), Mongolia (PAPP 2005; YU et al. 2012), Russia (BELOKOBYLSKIY 1998; YU et al. 2012), Turkey (GÜÇLÜ & ÖZBEK 2011).

Host record: Parasitoid of *Mordellistena parvula* (Coleoptera: Mordellidae) (GÜÇLÜ & ÖZBEK 2011; YU et al. 2012).

Genus *Triaspis* HALIDAY 1835

***Triaspis complanellae* (HARTIG 1847)**

Sigalphus complanella HARTIG 1847: 17; *S. flavipes* IVANOV 1899: 286.

Distribution in Iran: Guilan (GHAHARI et al. 2012a as *T. flavipes* (IVANOV)).

Distribution outside Iran: Belgium, Czech Republic, France, Germany, Kazakhstan, Korea, Mongolia, Russia, Slovakia, Syria (YU et al. 2012), Tunisia (PAPP 1981; YU et al. 2012); Ukraine (IVANOV 1899 as *Sigalphus flavipes*; YU et al. 2012).

Host record: Parasitoid of *Gymnetron antirrhini* PAYKULL (Coleoptera: Curculionidae), *Tischeria ekebladella* (BJERKANDER) (Lepidoptera: Tischeriidae) (YU et al. 2012).

***Triaspis floricola* (WESMAEL 1835)**

Sigalphus floricola WESMAEL 1835: 208.

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

Distribution outside Iran: Algeria, Czech Republic, France, Germany, Hungary, Ireland, Italy, the Netherlands, Poland, Slovakia, Spain, Switzerland, UK (YU et al. 2012), Belgium (WESMAEL 1835 as *Sigalphus floricola*; YU et al. 2012), Greece (PAPP 2007, 2011-2012; YU et al. 2012), Israel (HALPERIN 1986; PAPP 2011-2012; YU et al. 2012), Russia, North Africa, Western Europe (TOBIAS 1995; YU et al. 2012).

Host record: Parasitoid of *Apion rufirostre* FABRICIUS, *A. loti* KIRBY, *A. longirostre* OLIVIER, *Ceutorhynchus pleurostigma* MARSHAM, *C. sulcicollis* (PAYKULL),

C. sulcatus BRISOUT (Coleoptera: Curculionidae) (TOBIAS 1995; YU et al. 2012), *Sinoxylon sexdentatum* OLIVIER, *Xylopertha retusa* OLIVIER (Coleoptera: Bostrichidae), *Apion lemeroi* BIRSOUT, *A. trifolii* LINNAEUS (Coleoptera: Curculionidae), *Caliroa cerasi* (LINNAEUS) (Hymenoptera: Tenthredinidae) (YU et al. 2012).

***Triaspis lugubris* ŠNOFLÁK 1953**

Triaspis lugubris ŠNOFLÁK 1953: 167, 168.

Distribution in Iran: Mazandaran (GHAHARI & FISCHER 2011b; SAKENIN et al. 2012).

Distribution outside Iran: Czech Republic (ŠNOFLÁK 1953; TOBIAS 1995; YU et al. 2012), Hungary, Kazakhstan, Korea, Russia (YU et al. 2012), Kazakhstan, Siberia (TOBIAS 1995; YU et al. 2012), Mongolia (PAPP 2005; YU et al. 2012).

Host record: Parasitoid of *Rynchaenus sanguinipes* ROELOFS (Coleoptera: Curculionidae) (YU et al. 2012).

***Triaspis obscurellus* (NEES VON ESENBECK 1816)**

Sigalphus obscurellus NEES 1816: 270.

Distribution in Iran: East Azarbaijan (RASTEGAR et al. 2012), Isfahan (GHAHARI et al. 2011d).

Distribution outside Iran: Azerbaijan, Bulgaria, Canary Islands, Croatia, Czech Republic, France, Germany, Hungary, Italy, Kazakhstan, Lithuania, Macedonia, Moldova, Mongolia, the Netherlands, Poland, Russia, Slovakia, Spain, Switzerland, Ukraine, UK, Uzbekistan, former Yugoslavia (YU et al. 2012), Greece (PAPP 2007; YU et al. 2012), Israel (PAPP 2011-2012; YU et al. 2012), Serbia (ŽIKIĆ et al. 2000 under Helconinae; YU et al. 2012), Turkey (GÜÇLÜ & ÖZBEK 2011).

Host record: This species was reported from the following hosts: *Acanthoscelides pallidipennis* (MOTSCHULSKY), *Anobium rufipes* FABRICIUS, *Anthaxia quadripunctata* (LINNAEUS), *Anthonomus rubi* (HERBST), *Apion carduorum* KIRBY, *A. cracca* LINNAEUS, *A. damryi*, *A. damryi* DESBROCHERS, *A. semivittatum* GYLLENHAL, *Bruchidius pusillus* GERMAR, *Bruchus lentis* FROELICH, *B. rufimanus*, *Ceutorhynchus assimilis* (PAYKULL), *C. contractus* MARSHAM, *C. maculaalba* HERBST, *C. obstructus* MARSHAM, *C. picitarsis* GYLLENHAL, *C. pleurostigma* MARSHAM, *C. rapae* GYLLENHAL, *C. sulcicollis* (PAYKULL), *Gastrallus corsicus*, *G. corsicus*, *Gymnetron antirrhini* PAYKULL, *G. collinum* GYLLENHAL, *G. noctis* HERBST, *G. villosulum* GYLLENHAL, *Ochina ptinoides*, *Stenocarus fuliginosus*, *Stereonychus fraxini* DEGEER, *Tychius flavus* BECKER (Coleoptera: Curculionidae and Apionidae) (GÜÇLÜ & ÖZBEK 2011; YU et al. 2012).

***Triaspis pallipes* (NEES VON ESENBECK 1816)**

Helcon (Triaspis) fulvipes HALIDAY 1835: 127; *Sigalphus pallipes* NEES 1816: 251.

Material examined: Ardabil province: Aslandooz (246 m), 22.ix.2011. **New record for Iran.**

Distribution outside Iran: Armenia, Israel (PAPP 2011-2012),

Azerbaijan (TOBIAS 1995; PAPP 2011-2012; YU et al. 2012), Bulgaria (PAPP 2011-2012; YU et al. 2012), Canary Islands, Czech Republic, France, Hungary, Ireland, Italy, Kazakhstan, Latvia, Moldova, Norway, Poland, Russia, Switzerland, Ukraine (YU et al. 2012), Caucasus, Western Europe (TOBIAS 1995), China (TOBIAS 1995; YU et al. 2012), Germany, UK (HALIDAY 1835 as *Helcon fulvipes*; YU et al. 2012).

Host record: Parasitoid of *Bruchus atomarius* LINNAEUS, *B. affinis* Froelich (Coleoptera: Bruchidae), *Rhynchaenus fagi* (LINNAEUS), *R. quercus* (LINNAEUS), *R. alni* (LINNAEUS), *R. testaceus* MÜLLER, *Gymnetron tetrum* FABRICIUS, *G. antirrhini* PAYKULL, *Apion aeneum* FABRICIUS, *Anathonomus pomorum* LINNAEUS, *Ceutorhynchus pleurostigma* MARSHAM (Coleoptera: Curculionidae), *Bruchidius seminarius* LINNAEUS, *Bruchus lentis* FROELICH, *B. luteicornis* ILLIGER, *B. rufimanus* BOHEMAN, *Ceutorhynchus assimilis* (PAYKULL), *C. sulcicollis* (PAYKULL), *Rynchaenus semirufus* GYLLENHAL (Coleoptera: Curculionidae), *Baryscapus endemus* (WALKER) (Hymenoptera: Eulophidae) (YU et al. 2012).

Discussion

In total 28 species from 9 genera of Agathidinae and 17 species from 4 genera of Brachistinae are listed in this catalogue as the fauna of Iran. Of the Agathidinae the genus *Agathis* with 16 species, and of the Brachistinae the genus *Schizoprymnus* with 9 species are more diverse than the other genera. The members of Agathidinae are the parasitoids of Lepidoptera, and of the Brachistinae are the parasitoids of Curculionidae and Apionidae. So these braconids can have efficient role in biological control of mentioned pests in different agroecosystems of Iran. With attention to the high diversity of Lepidoptera and Curculionoidea in Iran, surely several other species of Agathidinae and Brachistinae remain to be discovered. In addition to the faunistic studies on Iranian Braconidae, determining their hosts is valuable research topic. If there is sufficient knowledge on the hosts of parasitoids, it would be resulted to successful establishment of biological control programs.

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Zusammenfassung

Vorliegende Arbeit gibt eine Zusammenfassung der Fauna der Agathidinae und Brachistinae (Hymenoptera: Braconidae) des Irans. Insgesamt gelang der Nachweis von 28 Arten Agathidinae aus den acht Gattungen *Agathis* LATREILLE, *Bassus* FABRICIUS, *Camptothlipsis* ENDERLEIN, *Coccygidium* SAUSSURE, *Cremnops* FÖRSTER, *Disophrys* FÖRSTER, *Earinus* WESMAEL, *Leptopylus* FÖRSTER, *Therophilus* WESMAEL sowie 17 Arten von Brachistinae der Gattungen *Eubazus* NEES

von ESENBECK, *Foersteria* SZÉPLIGETI, *Schizoprymnus* FÖRSTER, *Triaspis* HALIDAY. Die zwei Brachistinae-Arten *Triaspis pallipes* (NEES) und *Eubazus (Brachistes) minutus* (RATZEBURG) sind Erstnachweise für den Iran. Sofern vorhanden wurden den Fundangaben Wirtsangaben beigegefügt.

References

- VAN ACHTERBERG C. (1990): Revision of the genera *Foerteria* and *Polydegmon* FOERSTER (Braconidae: Hymenoptera), with the description of a new genus. — Zoologische Mededelingen **257**: 1-32.
- VAN ACHTERBERG C. & K.D. LONG (2010): Revision of the Agathidinae (Hymenoptera, Braconidae) of Vietnam, with the description of forty-two new species and three new genera. — ZooKeys **54**: 1-184.
- BELOKOBYSKIJ S.A. (1998): Subfamily Brachystinae (Calyptinae), pp. 440-489. In: key to the insects of Russian Far East, Vladivostok, Dal'nauka, vol. IV. Neuropteroidea, Mecoptera, Hymenoptera. Part 3: 1-707 pp.
- BELOKOBYSKIJ S.A. & M.A. JERVIS (1998): Descriptions of two new species of the genus *Agathis* LATREILLE (Hymenoptera, Braconidae, Agathidinae) from Spain, with a record of mating by one species on flowers. — Journal of Natural History **32** (8): 1217-1225.
- BELOKOBYSKIJ S.A., GÜÇLÜ C. & H. ÖZBEK (2004): A new species of the genus *Schizoprymnus* FOERSTER (Hymenoptera, Braconidae, Brachistinae) from Turkey. — Zoosystematica Rossica **12**: 245-248.
- BEYARSLAN A., İNANÇ F., ÇETİN ERDOĞAN Ö. & M. AYDOĞDU (2002): Braconiden von den türkischen Inseln Imbros und Tenedos (Hymenoptera: Braconidae: Agathidinae, Braconinae, Cheloninae, Microgastrinae). — Entomofauna **23** (15): 173-188.
- BEYARSLAN A., YURTCAN M., ÇETİN ERDOĞAN Ö. & M. AYDOĞDU (2006): A study on Braconidae and Ichneumonidae from Ganos Mountains (Thrace Region, Turkey) (Hymenoptera, Braconidae, Ichneumonidae). — Linzer biologische Beiträge **38** (1): 409-422.
- BRULLÉ M.A. (1846): Tome Quatrième Des Hyménoptères, Les Ichneumonides, pp. 56-521. In: Lepeletier de Saint-Fargeau A 'Histoire Naturelles des Insectes'. — Paris: 1-680.
- ÇETİN ERDOĞAN Ö. (2013): Contributions to the knowledge of Agathidinae fauna of the Eastern Anatolia Region of Turkey. — Turkish Journal of Zoology **37**: 195-199.
- ÇETİN ERDOĞAN Ö. & A. BEYARSLAN (2001): The Agathidinae (Hymenoptera: Braconidae) fauna of the Marmara region. — Turkish Journal of Zoology **25**: 257-268.
- ÇETİN ERDOĞAN Ö., VAN ACHTERBERG C. & A. BEYARSLAN (2009): On the zoogeographical Distribution of the genus *Agathis* LATREILLE 1804 (Hymenoptera: Braconidae: Agathidinae) in Turkey. — Journal of Entomological Research Society **11** (1): 17-25.
- CHOU L.Y. & M.J. SHARKEY (1989): The Braconidae (Hymenoptera) of Taiwan. 1. Agathidinae. — Journal of Taiwan Museum **42** (1): 147-223.
- COSTA A. (1888): Miscellanea entomologica. — Memoria prima. Rendiconto dell'Accademia della Scienze Fisiche e Matematiche, Napoli **2** (1): 242-244.
- CRESSON E.T. (1873): Descriptions of North American Hymenoptera, No. 7. — Canadian Entomologist **5** (5): 82-85.
- DAHLBOM A.G. (1833): Forsök till beskrifning ofver Hymenopterslagtet *Chelonus*, med dertill horande skandinaviske arter. — Konliga Svenska vetenskaps-Akademiens Handlingar **53** (1832): 62, 147-167.
- ENDERLEIN G. (1904): Die Braconiden-Gattung *Braunsia* KRIECHB. — Zool. Jb. (Syst.) **20**: 429-552.

- ENDERLEIN G. (1908): Biologische-faunistische Moor-und Dunnen-Studien. Ein Beitrag zur Kenntnis biosynocischer Regionen in Westpreussen. — Ber. Westpreuss. Bot.-Zool. Ver. **30**: 54-238.
- FABRICIUS J.C. (1804): Systema Piezatorum. — Brunsvigae 439 pp.
- FAHRINGER J. (1937): Opuscula braconologica IV. — Palaearktische Region **3** (4-6): 402-510.
- FALLAHZADEH M. & N. SAGHAEI (2010): Checklist of Braconidae (Insecta: Hymenoptera) from Iran. — Munis Entomology & Zoology **5** (1): 170-186.
- FISCHER M. (1957): Beiträge zur Kenntniss paläarktischen Braconidae (Hymenopteren). — Mitteilungen Münchener Entomologischen Gesellschaft **47**: 1-21.
- FISCHER M. (1959): Neue und wenig bekannte Braconiden aus Jugoslawien (Hymenoptera). — Acta Mus. Mecad. Science Nat. **6**: 1-25.
- FISCHER M. (1966): Gezüchtete Braconiden aus Niederösterreich und aus dem Burgenland. — Zeitschrift für Angewandte Zoologie **53**: 385-402.
- FISCHER M. (1968): Über gezüchtete Raupenwespen (Hymenoptera, Braconidae). — Pflanzenschutz-Berichte **37** (7, 8, 9), 97-140 (key for *Agathis*, Palearctic species, as far as Mongolia, China).
- FONSCOLOMBE E.L.J.H. BOYER DE (1846): Notes sur huit espèces nouvelles d'Hyménoptères et de Neuroptères, trouvées aux environs d'Axis. — Annales de la Société Entomologique de France **2** (4): 39-51.
- FÖRSTER A. (1862): Synopsis der Familien und Gattungen der Braconen. — Verhandlungen des naturhistorischen Vereins des Preussischen Rheinlandes **19**: 225-288.
- 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. & 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 Braconidae (Hymenoptera: Ichneumonoidea) from Qazvin province, Iran. — Entomofauna **32** (9): 197-208.
- GHAHARI H., FISCHER M. & J. PAPP (2011c): A study on the Braconidae (Hymenoptera: Ichneumonoidea) from Ilam province, Iran. — Calodema **160**: 1-5.
- GHAHARI H., FISCHER M. & J. PAPP (2011d): A study on the braconid wasps (Hymenoptera: Braconidae) from Isfahan province, Iran. — Entomofauna **32** (16): 261-272.

- 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* **33** (7): 65-72.
- GÜÇLÜ C. & H. ÖZBEK (2011): A contribution to the knowledge of the subfamily Brachistinae (Hymenoptera: Braconidae) in Turkey. — *Journal of the Entomological Research Society* **13** (3): 15-26.
- HALIDAY A.H. (1833): An essay on the classification of the Parasitic Hymenoptera of Britain which corresponds with the *Ichneumones minuti* of Linnaeus. — *Entomological Magazine* **1**: 259-276.
- HALIDAY A.H. (1935): Essay on parasitic Hymenoptera. — *Entomological Magazine* **3** (2): 121-147.
- HALPERIN J. (1986): Braconidae (Hymenoptera) associated with forest and ornamental trees and shrubs in Israel. — *Phytoparasitica* **14** (2): 119-135.
- HARTIG T. (1847): Über einige parasitische hymenopteren des Harzes. — *Ber. Naturw. Ver. Harz* **1846-1847**: 15-19.
- HEDWIG K. (1957): Ichneumoniden und Braconiden aus den Iran 1954 (Hymenoptera). — *Jahresheft des Vereins für Vaterländische Naturkunde* **112** (1): 103-117.
- HERRISCH-SCHÄFFER G.A.W. (1838): Faunae Insectorum Germaniae. Initiae oder Deutschlands Insecten. Hymenoptera. "Übersicht der Gattung *Coelinus* NEES. Übersicht der Gattung *Eubadizon* NEES. Auseinandersetzung der Gattung *Sigalphus* LATR. — Regensburg. Heft 153.
- IVANOV P. (1899): Braconides cryptogastres et aréolaires des environ de Koupiansk avec tableaux synonymiques des genres et des espèces de ces insectes. — *Trudy Obshchestva Ispytatelei Prirody pri Imperatorskan Khar Kovskom Universitete* **33**: 273-382.
- JURINE L. (1807): Nouvelle method de classer les Hyménoptères et les Diptères. 1. Hyménoptères. — Geneva. J.J. Paschoud ed. 319 pp.
- KLOET G.S. & W.D. HINCKS (1945): A checklist of British insects. — Stockport, lix+ 483 pp.
- KOKUJEV N.R. (1895): Fragments Braconologiques IV-V. — *Trudy Russkago Entomologicheskago Obshchestva* **29**: 363-392.
- KOKUJEV N.R. (1902): Matériaux pour la faune hymenopterologique de la Russie. — *Entomologicheskoye Obozreniye* **2**: 4-12.
- KOKKUEV N.R. (1903): New Transcaspian species of the subfamily Agathidinae (Hymenoptera: Braconidae). — *Trudy Entomologicheskago Obshchestva* **36**: 240-247.
- KRIECHBAUMER J. (1898): Über *Diophrys caesa* KLUG und *inulcatrix* auct. Nebst einer neuen Art dieser Gattung. — *Entomologische Nachrichten* **24** (1): 181-185.
- 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.
- LATREILLE P.A. (1805): Histoire naturelle, generale et particulière des crustacés et des insectes. Ouvrage faisant suite aux oeuvres de LeClerc de Buffon et partie du cours complet d'Histoire naturelle rédigé C.S. Somini. — Paris: Dufart **13**: 1-432.
- LUCAS H. (1849): Exploration scientifique de l'Algerie pendant les années 1840, 1841, 1842. — *Sciences physiques, Zoologie, III. Insectes*. Paris, 527 pp.

- MARSHALL T.A. (1885): Monograph of British Braconidae. Part I.— Transactions of the Entomological Society of London, 1885: 1-280.
- MARSHALL T.A. (1890): Les Braconides. In: Andre E. (ed.) "Species des Hyménoptères d'Europe et d'Algérie. — Beune 1888, Tome 4: 1-609.
- MARSHALL T.A. (1898): Description de Braconides. — Bulletin du Museum National d'Histoire Naturelle, Paris 4: 369-371.
- MUESEBECK C.F.W. (1933): Five new hymenopterous parasites of the oriental fruit moth. — Proceedings of the Entomological Society of Washington 35 (4): 48-54.
- 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.
- NEES VON ESENBECK C.G. (1812-1814): Ichneumonides adsciti, in genera et familias divisi. — Magazin Gesellschaft Naturforschender Freunde zu Berlin 6 (1812): 183-221.
- NEES VON ESENBECK C.G. (1916): Ichneumonides Adsciti, in genera et familias divisi. — Magazin Gesellschaft Naturforschender Freunde zu Berlin 7 (1813): 243-277.
- NEES VON ESENBECK C.G. (1834): Ichneumonides Hymenopterorum Ichneumonibus affinium monographie, genera Europea et species illustrantes. — Stuttgart: Tubingen, Cotta 1: 1-320, 2: 1-448.
- NIEZABITOWSKI E.L. (1910): Materyaly do fauny Braconidow Polski. Braconidae, zebrane w Galigi. — Sprawozdania Akademii Umiejetnosciw Krakowie 44: 47-106.
- NIXON G.E.J. (1986): A revision of the European Agathidinae (Hymenoptera: Braconidae). — Bulletin of the British Museum Natural History (Entomology). Ser. 52 (3): 183-242.
- PAPP J. (1967): Ergebnisse der zoologischen Forschungen von Dr. Kaszab in der Mongolei 101. Braconidae (Hymenoptera) II. — Acta Zoologica Academiae Scientiarum Hungaricae 13: 91-226.
- PAPP J. (1971): Results of the zoological explorations of Dr. Kaszab in Mongolia. Hymenoptera: Braconidae II. — Annales Historico-Naturales Musei Nationalis Hungarici 17: 51-90.
- PAPP J. (1975): Contribution to the Braconid fauna of Yugoslavia (Hymenoptera: Braconidae) II. — Folia Entomologica Hungarica Rovartani K.zlemyenyek (Series Nova) 28 (2): 301-319.
- PAPP J. (1981): Braconidae (Hymenoptera) from Tunisia, 2. — Folia Entomologica Hungarica 42 (34) (1): 155-162.
- PAPP J. (1998): New braconid wasps (Hymenoptera, Braconidae) in the Hungarian Natural History Museum, 6. — Annales Historico-Naturales Musei Nationalis Hungarici, 90: 221-256.
- PAPP J. (2003): Braconidae (Hymenoptera) from Greece, 5. — Notes fauniques de Gembloux, n° 53: 21-54.
- PAPP J. (2005): Braconidae (Hymenoptera) from Mongolia, XVI. Subfamilies Gnamptodontinae, Brachystinae, Euphorinae, Alysiniinae. — Acta Zoologica Academiae Scientiarum Hungaricae 51 (3): 221-251.
- PAPP J. (2007): Braconidae (Hymenoptera) from Greece, 6. — Notes fauniques de Gembloux 60 (3): 99-127.
- PAPP J. (2009a): contribution to the braconid fauna of the former Yugoslavia, V. Ten subfamilies (Hymenoptera, Braconidae). — Entomofauna 30 (1): 1-36.
- PAPP J. (2009b): Braconidae (Hymenoptera) from Mongolia, XVII. Eleven subfamilies. — Acta Zoologica Academiae Scientiarum Hungaricae 55 (2): 139-173.
- PAPP J. (2009c): Braconidae (Hymenoptera) from Korea XXIII. Subfamilies Agathidinae and Alysiniinae. — Acta Zoologica Academiae Scientiarum Hungaricae 55(3): 235-261.
- 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** (2011-2012): 165-219.
- PAPP J., VAN ACHTERBERG C., ZUIJLEN J.W.A. VAN., ATANASSOVA P.V., CHEN X.X. & E. HAESSELBARTH (1996): Braconidae (Schildwespen), pp. 119-128. In: VAN ZUIJLEN J.W.A., PEETERS R.M.J., VAN WIELINK P.S., VAN ECK A.P.W. & E.H.M. BOUVY, Brand-Stof. Een inventarisati van de entomofauna vars het antuurresvaat (De Brand in 1990). — Insekten werkgroep K.N.N.V.-afdeling Tilburg, Nederland, 228 pp.
- QUEDNAU F.W. (1970): Notes on life history fecundity, longevity and attack pattern of the *Agathis punila* (Hymenoptera, Braconidae), a parasite of the larch casebearer. — Canadian Entomologist **102**: 736-745.
- RANJBAR AGHDAM H. & Y. FATHIPOUR (2010): First report of parasitoid wasps, *Ascogaster quadridentata* and *Bassus rufipes* (Hym.: Braconidae) on codling moth (Lep.: Tortricidae) larvae from Iran. — Journal of Entomological Society of Iran **30** (1): 55-58.
- 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.
- RATZEBURG J.T.C. (1844a): Du Forst-Insecten oder Abbildung und Beschreibung der in den Wäldern preussens und der Nachbarstaaten als schädlich oder nützlich bekannt gewordenen Insecten; In systematischen Folge und mit besonderer Rückicht auf die Vertilgung der Schädlichen. — Berlin **3**: 1-314.
- RATZEBURG J.T.C. (1844b): Die Ichneumonon der Forstinsecten in forstlicher und entomologischer Beziehung **1**: 1-224.
- RATZEBURG J.T.C. (1848): Die Ichneumonon der Forstinsecten in forstlicher und entomologischer Beziehung. Zweiter Band. — Berlin, 238 pp.
- RATZEBURG J.T.C. (1852): Die Ichneumonon der Forstinsecten in forstlicher und entomologischer Beziehung **3**: 1-272.
- REINHARD H. (1867): Beiträge zur Kenntnis einiger Braconiden-Gattungen. — Berliner Entomologischer Zeitschrift **11**: 351-374.
- RICHARDSON C.H. (1913): A new braconid of the genus *Microdus* from Canada. — Canadian Entomologist **45**: 211-212.
- SAKENIN H., GHAHARI H., LEHR P.A., OSTOVAN H. & M. HAVASKARY (2009): A Contribution to the robber flies (Diptera: Asilidae) from Arasbaran region and vicinity, Northeastern Iran. 10th Arab Congress of Plant Protection, 26-30 October, 2009. Arab Journal of Plant Protection, 27, Special Issue (Supplement), October, 2009: 42-43.
- 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: 1-123.
- 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.
- SHARKEY M.J. (1996): The Agathidinae (Hymenoptera: Braconidae) of Japan. — Bulletin of the National Institute of Agro-Environmental Sciences **13**: 1-100.
- SHARKEY M.J. (1998): Agathidinae, pp. 520-531. — In: LER P.A., 'Key to the insects of Russian Far East. Vol. 4. Neuropteroidea, Mecoptera, Hymenoptera. Pt 3: 1-708.
- SHAW M.R. & T. HUDDLESTON (1991): Classification and biology of braconid wasps (Hymenoptera: Braconidae). — Handbooks of the Identification of British Insects **7**: 1-126.

1900

- SHENEFELT R.D. (1970): Pars 6. Braconidae 3, Agathidinae, pp. 307-428. In: FERRIERE Ch., van der VECHT J. (eds), Hymenopterorum catalogus (nova editio) The Hague: Dr W. Junk.
- SHESTAKOV A. (1928): Ad cognitionem Braconidarum tribus Agathidini. I. — Entomologicheskoye Obozreniye **22**: 223-228.
- Shestakov A. (1932): Zur Kenntniss der asiatischen Braconiden. — Zoologischer Anzeiger **99**: 255-263.
- SHESTAKOV A. (1940): Zur Kenntnis der Braconiden Ostsibiriens. — Arkiv for Zoologi **32A** (19): 1-21.
- SIMBOLOTTI G. & C. VAN ACHTERBERG (1992): Revision of the West Palearctic species of the genus *Bassus* FABRICIUS (Hymenoptera: Braconidae). — Zoologische Verhandlungen Leiden **281**: 1-80.
- SIMBOLOTTI G. & C. VAN ACHTERBERG (1999): Revision of the western Palearctic species of the genus *Agathis* LATREILLE (Hymenoptera: Braconidae: Agathidinae). — Zoologische Verhandlungen Leiden **325**: 1-167.
- ŠNOFLAK J. (1953): La monographie de *Triaspis* HAL. (Hym. Bracn.) de la Tchécoslovaquie. — Sbornik Entomologického oddeleni Národního musea V. Praze **28** (1952): 285-396.
- SPINOLA M. (1843): Notes sur quelques Hyménoptères peu connus, recueillis en Espagne, pendant l'années 1842, par M. Victor Ghiliani, voyageur-naturaliste. — Annales de la Société Entomologique de France **2** (1): 111-144.
- SZÉPLIGETI G. (1898): Beitrag zur Kenntnis der ungarischen Braconiden Braconiden, 3. Teil. — Természetráji Füzetek **21**: 381-396.
- SZÉPLIGETI G. (1901): Braconiden aus Syrien und Palastina in der Sammlung der Ung. National-Museums. — Természetráji Füzetek **24**: 151-152.
- SZÉPLIGETI G. (1904): Übersicht der Gattungen und Arten der paläarktischen Braconiden. — Mathematische und Naturwissenschaftlichen Berichte aus Ungarn **19** (1901): 145-203.
- TELENGA N.A. (1941): Family Braconidae, Subfamily Braconinae (continuation) and Sigalphinae. — Fauna USSR. Hymenoptera **5** (3): 1-466.
- TELENGA N.A. (1955): Braconidae: subfamily Microgastrinae, subfamily Agathidinae. — Fauna USSR, Hymenoptera **5** (4): 1-311.
- TELENGA N.A. (1964): Braconidae: Microgastrinae and Agathidinae. — Zoological Institute of the Academy of Science of the USSR. New series no.61. Fauna of the USSR Hymenoptera (Pereponchatokrylye) **5** (4): 1-295.
- THOMPSON W.R. (1953): Host of the Hymenoptera (Agaonidae to Braconidae). — A catalogue of the parasites and predators of insect pests **2** (2): 1-190.
- THOMSON C.G. (1892): XLIV. Bidrag till Braconidern kannedom. — Opuscula Entomologica **16**: 1659-1751.
- THOMSON C.G. (1895): LII. Bidrag till Braconidernas kannedom. — Opuscula Entomologica **20**: 2141-2339.
- TOBIAS V.I. (1963): The species of the genus *Agathis* LATR. (Hymenoptera, Braconidae) from Kazakhstan and Middle Asia. — Entomologicheskoye Obozreniye **42**: 864-883.
- TOBIAS V.I. (1971): Review of the Braconidae (Hymenoptera) of the U.S.S.R. — Trudy Vsesoyuznogo Entomologicheskogo Obshchestva **54**: 156-268.
- TOBIAS V.I. (1976): To the knowledge of the Far Eastern species of the genus *Microdus* Nees (Hymenoptera, Braconidae). — Insects of the Far East **1976**: 96-106.
- TOBIAS V.I. (1986): 27. Ordo Hymenoptera, family Braconidae (1). Key to the insects of the European part of the USSR III. — Hymenoptera **4**: 1-501.
- TOBIAS V.I. (1995): Keys to the insects of the European part of USS. (ed.): Medvedev G.S. 3(4). — New Delhi, Baba Barkha Nath, 900 pp.

- THORPE W.H. (1933): Notes on the natural control of *Coleophora laricella*, the larch case-bearer. — Bulletin of Entomological Research **24**: 1-271.
- VILLERS C. de (1789): Caroli Linnaei entomologia, Fauna Suecae descriptionibus. Tomus tertius. — Lugduni, 657 pp.
- VOLLENHOVEN S. & C. SNELLEN VAN (1873): Nieuwe naamlijst van Nederlandsche vliisvlengelige Insecten (Hymenoptera). — Tweede Stuk. Tijdschrift voor Entomologie **16**: 147-220.
- WALTJ J. (1835): Reise durch Tyrol Oberitalien und Piedmont nach dem südlichen Spanien-Zweiter Theil. Über die Thiere Andalusiens. Passau. 120 pp.
- WATANABE C. (1937): A contribution to the knowledge of the braconid fauna of the Empire of Japan. — Journal of the Faculty of Agriculture, Hokkaido (Imp.) University **42**: 1-188.
- WESMAEL C. (1835): Monographie des Braconides de Belgique. — Nouveaux Memoires de l'Academie Royale des Sciences et Belles-lettres Bruxelles **9**: 1-252.
- YU D.S., ACHTERBERG C. VAN & 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.
- ZETTEL H. & A. BEYARSLAN (1992): Über Agathidinae aus der Türkei (Hymenoptera: Braconidae). — Entomofauna **13** (5): 121-132.
- ZETTERSTEDT J.W. (1838): Insecta Lapponica. Sectio secund Hymenoptera. — Lipsiae: 358-408.
- ŽIKIĆ V., BRAJKOVIĆ M. & Z. TOMANOVIĆ (2000): Preliminary results of braconid fauna research (Hymenoptera: Braconidae) found in Sicevo Gorge, Serbia. — Acta entomologica serbica **5** (1-2): 95-110.
- ŽIKIĆ V., VAN ACHTERBERG C. & S. STANKOVIĆ (2010): A contribution to the Braconidae, Hybrizontidae (Hymenoptera: Ichneumonoidea) and Stephanidae (Hymenoptera: Stephanoidea) from the south-west Balkans. — Acta entomologica Serbica **15** (2): 227-235.

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