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## Iranian Braconidae (Insecta: Hymenoptera: Ichneumonoidea): diversity, distribution and host association

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**ABSTRACT.** An annotated list of Braconidae (Hymenoptera: Ichneumonoidea) for all species recorded from the territory of Iran during more than a hundred years (1901–2016) of research is given. A checklist of 780 species in 141 genera belonging to 26 subfamilies of Braconidae known from Iran is listed, among them 34 species are exclusive for the Iranian insect fauna. Host and distributional data in Iran are also provided.

**Key words:** Checklist, parasitic wasps, Braconidae, fauna, Iran.

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### Introduction

Hymenoptera are one of the most diverse insect orders worldwide, with more than 152,677 known species (Aguilar *et al.* 2013). Braconidae (Hymenoptera: Ichneumonoidea) is the second largest family of Hymenoptera, with 19,801 valid species belonging to 1,071 genera, but that probably is less than 20% of the total diversity worldwide (van Achterberg 2014). Members of Braconidae are distributed in all zoogeographical regions (Yu *et al.* 2012). The majority of the species are parasitoids especially upon the larval stages of insect pests in the various orders including Coleoptera, Diptera, Hymenoptera and Lepidoptera (Shaw and Huddleston 1991; Wharton 1997).

The first recorded braconid species from Iran was from the early 20<sup>th</sup> century (Szépligeti 1901). Telenga (1936, 1941, 1955) recorded several species for the Iranian braconid fauna. Hedwig (1957) recorded 26 species of Braconidae from south eastern Iran (Sistan & Bluchestan province), ten of which were described as new to science. Subsequently, Hellen (1958), Mackauer (1960), Fischer (1963), Mirabzadeh (1968), Davatchi and Shojai (1969) and Starý (1974, 1975, 1979, 1981) added several species to this list. Many studies have been conducted on the Braconidae fauna as scattered reports by Iranian researchers (eg. Monajemi and Esmaili 1981; Al-e-Mansour

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and Mostafavi 1993; Siahpoush *et al.* 1993; Mojeni 1994; Goldansaz *et al.* 1996; Shamszadeh 1998; Bagheri 1998; Abbasipour 2001). The braconid fauna of Iran has been subjected to extensive survey during the last decade (Rakhshani *et al.* 2004, 2005a-b, 2006a-b, 2007a-b, 2008a-c, 2012a-b; Farahani *et al.* 2012a-f, 2013a-d, 2014a-h, 2015a-b; Barahoei *et al.* 2012, 2013, 2014; Ameri *et al.* 2012, 2014a-d, 2015; Khajeh *et al.* 2014a-b; Peris-Felipo *et al.* 2014, 2015, 2016; Gadallah and Ghahari 2013a-b, 2015; Gadallah *et al.* 2015a-b, 2016a-b).

The last checklist of the Iranian Braconidae was published by Fallahzadeh and Saghaei (2010), who listed 202 species. Lashkari Bod *et al.* (2011a) added 11 new records species and reported 346 braconid species from Iran. Subsequently, 550 braconid species were recorded from Iran in Taxapad (Yu *et al.* 2012).

Species checklists are helpful tools in the fields of natural science. In the present work, a complete list of Braconidae from Iran is provided.

### Material and methods

The checklist includes all species of braconid wasps known to occur in Iran. All available data from the literature were used to compile this review paper. Synonyms for the species are not included because these data are readily accessible in Yu *et al.* (2012). Host associations are only presented for Iranian species that their hosts have been recorded from Iran.

Species names are arranged alphabetically by subfamily, tribe, genus and species. The classification, taxonomic arrangement, nomenclature and general distribution of braconid wasps followed Yu *et al.* (2012). These have been supplemented with some changes to the classifications based on van Achterberg (2014). All references concerning Iranian braconids are summarized. The

valid names and distribution in Iran are provided for each species.

### Results

A total of 780 species of Braconidae are listed below. The number of genera and species into subfamilies is (genus-species): from Agathidinae (9-33), Alysiinae (18-85), Aphidiinae (15-73), Blacinae (1-15), Brachistinae (4-18), Braconinae (11-115), Cardiochilinae (2-7), Cheloninae (4-67), Doryctinae (13-31), Euphorinae (16-53), Gnaptodontinae (1-4), Helconinae (5-9), Homolobinae (1-3), Hormiinae (4-10), Ichneutinae (1-1), Macrocentrinae (1-7), Microgastrinae (8-102), Microtypinae (1-2), Miracinae (2-3), Opiinae (13-95), Orgilinae (1-12), Pambolinae (1-1), Rhysipolinae (2-3), Rhyssalinae (2-3), Rogadinae (4-27), and Sigalphinae (1-1). Of them 34 species are reported exclusively for Iranian fauna (Table 2).

#### Subfamily Agathidinae Haliday, 1833

##### Tribe Agathidini Haliday, 1833

##### *Agathis anglica* Marshall, 1885

General distribution: Palaearctic and Oriental.  
Distribution in Iran: Golestan (Samin *et al.* 2011; Ghahari *et al.* 2011d; Samin *et al.* 2015), Mazandaran (Ghahari *et al.* 2011d), Guilan (Ghahari *et al.* 2012c), West Azarbaijan (Samin *et al.* 2014).

##### *Agathis assimilis* Kokujev, 1895

General distribution: Palaearctic.  
Distribution in Iran: Semnan (Ghahari *et al.* 2009b), Guilan (Ghahari *et al.* 2012c).

##### *Agathis breviseta* Nees, 1812

General distribution: Palaearctic.  
Distribution in Iran: Lorestan (Ghahari *et al.* 2012a), Semnan (Naderian *et al.* 2012).

##### *Agathis fulmeki* Fischer, 1957

General distribution: Palaearctic.  
Distribution in Iran: West Azarbaijan, East Azarbaijan (Ghahari and Fischer 2011a), Golestan (Ghahari *et al.* 2011d), Guilan

(Ghahari *et al.* 2012c), Kuhgiloyeh & Boyerahmad (Samin *et al.* 2015b).

***Agathis fuscipennis* (Zetterstedt, 1838)**

General distribution: Palaearctic.

Distribution in Iran: West Azarbaijan (Ghahari *et al.* 2009d), Lorestan (Ghahari *et al.* 2012a), Alborz, Guilan, Qazvin, Tehran (Farahani *et al.* 2014a).

***Agathis glaucoptera* Nees, 1834**

General distribution: Palaearctic.

Distribution in Iran: Mazandaran (Ghahari *et al.* 2011d), West Azarbaijan, Ardabil (Ghahari and Fischer 2011a), Guilan (Ghahari and Fischer 2011b; Sakenin *et al.* 2012), Golestan (Samin *et al.* 2015).

***Agathis lugubris* (Förster, 1862)**

General distribution: Palaearctic.

Distribution in Iran: Golestan (Ghahari *et al.* 2010a), Ilam (Ghahari *et al.* 2011a), Kermanshah (Ghahari and Fischer 2012; Samin 2015).

***Agathis malvacearum* Latreille, 1805**

General distribution: Palaearctic and Nearctic.

General distribution: Distribution in Iran: Guilan (Ghahari *et al.* 2010a), Qazvin (Ghahari *et al.* 2011b), Mazandaran (Ghahari *et al.* 2011d), Lorestan (Ghahari *et al.* 2012a), Khuzestan, Charmahal & Bakhtiari (Samin *et al.* 2015b).

***Agathis melpomene* Nixon, 1986**

General distribution: Palaearctic.

Distribution in Iran: Mazandaran (Ghahari *et al.* 2010a; Ghahari and Fischer 2011b; Sakenin *et al.* 2012), Guilan (Ghahari and Fischer 2011b), Kermanshah (Ghahari and Fischer 2012).

***Agathis montana* Shestakov, 1932**

General distribution: Palaearctic and Oriental.

Distribution in Iran: Ardabil (Ghahari and Fischer 2011a), Golestan (Ghahari *et al.* 2011d; Samin *et al.* 2015).

***Agathis nigra* Nees, 1812**

General distribution: Palaearctic.

Distribution in Iran: No specific locality cited (Hellén 1956; Tobias 1986; Simbolotti and van Achterberg 1999), Golestan (Ghahari *et al.* 2011d), Guilan (Ghahari *et al.* 2012c).

***Agathis pumila* (Ratzeburg, 1844)**

General distribution: Palaearctic and Nearctic.

Distribution in Iran: Guilan (Ghahari *et al.* 2012c, reported as *Bassus pumilus*).

***Agathis rostrata* Tobias, 1963**

General distribution: Palaearctic.

Distribution in Iran: Lorestan (Ghahari *et al.* 2012a).

***Agathis rufipalpis* Nees, 1812**

General distribution: Palaearctic.

Distribution in Iran: East Azarbaijan (Ghahari *et al.* 2009b), Kermanshah (Ghahari and Fischer 2012).

***Agathis semiaciculata* Ivanov, 1899**

General distribution: Palaearctic and Oriental.

Distribution in Iran: Guilan (Ghahari and Fischer 2011b), Golestan (Sakenin *et al.* 2012), Qazvin (Samin 2015).

***Agathis syngenesiae* Nees, 1812**

General distribution: Palaearctic.

Distribution in Iran: Hamadan, Ilam (Ghahari *et al.* 2010b), Lorestan (Ghahari *et al.* 2012a), Fars (Samin *et al.* 2015b).

***Agathis tibialis* Nees, 1812**

General distribution: Palaearctic.

Distribution in Iran: Qazvin (Ghahari *et al.* 2011b), Kermanshah (Ghahari and Fischer 2012), Semnan (Ghahari and Gadallah 2015).

***Agathis umbellatarum* Nees, 1812**

General distribution: Palaearctic.

Distribution in Iran: Guilan (Ghahari *et al.* 2010a), Ilam (Ghahari *et al.* 2011a), Golestan (Ghahari *et al.* 2011d), Kermanshah (Ghahari and Fischer 2012), Tehran (Farahani *et al.* 2014a).

***Agathis varipes* Thomson, 1895**

General distribution: Palaearctic.

Distribution in Iran: West Azarbaijan (Samin *et al.* 2014).

***Bassus claushtalianus* (Ratzeburg, 1844)**

General distribution: Palaearctic.

Distribution in Iran: Ilam (Ghahari *et al.* 2011a).

***Bassus dimidiator* (Nees, 1834)**

General distribution: Palaearctic, Nearctic and Oriental.

Distribution in Iran: East Azarbaijan (Ghahari and Fischer 2011a), Tehran (Ghahari *et al.* 2011d), Kordestan (Samin 2015).

***Bassus linguarius* (Nees, 1812)**

General distribution: Palaearctic.

Distribution in Iran: Ardabil (Ghahari *et al.* 2009b), Lorestan (Ghahari *et al.* 2012a), Semnan (Ghahari and Gadallah 2015).

***Camptothlipsis armeniaca* (Telenga, 1955)**

General distribution: Palaearctic.

Distribution in Iran: East Azarbaijan (Ghahari *et al.* 2009d, reported as *Bassus armeniacus*), Guilan (Ghahari *et al.* 2010a, reported as *Baeognatha armeniaca*), Kermanshah (Ghahari and Fischer 2012, reported as *Baeognatha armeniaca*), Alborz (Farahani *et al.* 2014a).

***Lytopylus persicus* Farahani & Talebi, 2014**

General distribution: Iran (Palaearctic)

Distribution in Iran: Guilan, Mazandaran (Farahani *et al.* 2014a).

***Lytopylus rufipes* (Nees, 1812)**

General distribution: Palaearctic.

Distribution in Iran: Tehran (Shojai 1989, reported as *Braunsia rufipes*), East Azarbaijan (Ranjbar Aghdam and Fathipour 2010, reported as *Bassus rufipes*), West Azarbaijan (Akbarzadeh Shoukat *et al.* 2015).

Hosts: *Cydia pomonella* Linnaeus (Lep.: Tortricidae) (Ranjbar Aghdam and Fathipour 2010), *Spilonota ocellana* Denis & Schiffermüller (Lep.: Tortricidae) (Shojai 1989), *Lobesia botrana* Denis & Schiffermüller (Lep.: Tortricidae) (Akbarzadeh Shoukat *et al.* 2015).

***Therophilus tumidulus* (Nees, 1812)**

General distribution: Palaearctic and Oriental.

Distribution in Iran: Mazandaran (Ghahari *et al.* 2010a), Golestan (Ghahari *et al.* 2011d),

Lorestan (Ghahari *et al.* 2012a), Kermanshah (Ghahari and Fischer 2012), Kuhgiluyeh & Boyerahmad (Samin *et al.* 2015b, reported as *Bassus tumidulus*).

**Tribe Cremnoptini Sharkey, 1992*****Cremnops desertor* (Linnaeus, 1758)**

General distribution: Palaearctic, Nearctic and Oriental.

Distribution in Iran: Guilan, Mazandaran (Farahani *et al.* 2014a).

***Cremnops richteri* Hedwig, 1957**

General distribution: Iran.

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

**Tribe Disophrini Sharkey, 1992*****Coccygidium transcaspicum* (Kokujev, 1902)**

General distribution: Palaearctic.

Distribution in Iran: Sistan & Baluchestan (Hedwig 1957), no specific locality cited (Tobias 1986; Sharkey 1998).

***Disophrys caesa* (Klug, 1835)**

General distribution: Palaearctic.

Distribution in Iran: Sistan & Baluchestan (Hedwig 1957), Lorestan (Ghahari *et al.* 2012a), Guilan, Mazandaran, Tehran (Farahani *et al.* 2014a).

Remarks: van Achterberg (2011, 2014) believes that *D. caesa* is distributed in South West Mediterranean and *D. caesa* (Klug, 1835) and *D. inculcatrix* (Kriechbaumer, 1898) which have been recorded from Iran (Hedwig 1957; Lashkari Bod *et al.* 2011a) should be considered as *D. initiator*.

***Disophrys dissors* Kokujev, 1903**

General distribution: Palaearctic.

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

***Disophrys inculcatrix* (Kriechbaumer, 1898)**

General distribution: Palaearctic.

Distribution in Iran: Fars (Lashkari Bod *et al.* 2011a).

**Tribe Earinini Sharkey, 1992*****Earinus elator* (Fabricius, 1804)**

General distribution: Palaearctic.

Distribution in Iran: East Azarbaijan (Ghahari and Fischer 2011a), Golestan (Ghahari *et al.* 2011d; Samin *et al.* 2015).

**Subfamily Alysinae Leach, 1815****Tribe Alysini Leach, 1815*****Adelurola amplidens* (Fischer, 1966)**

General distribution: Iraq and Iran

Distribution in Iran: Kermanshah, Hormozgan (Peris-Felipo *et al.* 2016).

***Alloea contracta* (Haliday, 1833)**

General distribution: Palaearctic.

Distribution in Iran: Mazandaran (Ghahari *et al.* 2010b), Golestan (Samin *et al.* 2015).

***Alysia (Anarcha) rufidens* Nees, 1834**

General distribution: Palaearctic and Nearctic.

Distribution in Iran: West Azarbaijan (Samin *et al.* 2014).

***Angelovia elipsocubitalis* Zaykov, 1980**

General distribution: Palaearctic.

Distribution in Iran: Golestan (Ghahari and Fischer 2011c).

***Aphaereta difficilis* Nixon, 1939**

General distribution: Palaearctic.

Distribution in Iran: Ilam (Ghahari *et al.* 2011a).

***Aphaereta minuta* (Nees, 1811)**

General distribution: Palaearctic, Nearctic and Oceanic

Distribution in Iran: Isfahan (Ghahari *et al.* 2011c, reported as *Asobara minuta*), Tehran (Khajeh *et al.* 2014a).

***Aspilota alfalfae* Fischer, Lashkari Bod, Rakhshani & Talebi, 2011**

General distribution: Iran.

Distribution in Iran: Fars (Fischer *et al.* 2011).

***Aspilota delicata* Fischer, 1973**

General distribution: Palaearctic.

Distribution in Iran: Ardabil (Ghahari *et al.* 2011d).

***Aspilota intermissa* Fischer, 1974**

General distribution: Palaearctic.

Distribution in Iran: Guilan (Ghahari and Fischer 2011b, reported as *Dinotrema intermissum*).

***Dinotrema amoenidens* (Fischer, 1973)**

General distribution: Palaearctic and Oriental.

Distribution in Iran: Golestan (Samin *et al.* 2011, 2015).

***Dinotrema concinnum* (Haliday, 1838)**

General distribution: Palaearctic.

Distribution in Iran: Ilam (Ghahari *et al.* 2011a, *Synaldis maxima*), Qazvin (Ghahari *et al.* 2011b, reported as *Dinotrema concinna*).

***Dinotrema contracticorne* (Fischer, 1974)**

General distribution: Palaearctic.

Distribution in Iran: Kerman (Ghotbi Ravandi *et al.* 2015).

***Dinotrema cratocera* (Thomson, 1895)**

General distribution: Palaearctic.

Distribution in Iran: Golestan (Ghahari *et al.* 2010a), Kordestan (Samin 2015).

***Dinotrema significarium* (Fischer, 1973)**

General distribution: Palaearctic.

Distribution in Iran: Sistan & Baluchestan (Ghahari *et al.* 2010b), Golestan (Samin *et al.* 2015).

***Idiasta picticornis* (Ruthe, 1854)**

General distribution: Palaearctic and Oriental.

Distribution in Iran: Sistan & Baluchestan (Sedighi *et al.* 2014).

***Orthostigma beyarslani* Fischer, 1995**

General distribution: Palaearctic.

Distribution in Iran: Fars (Fischer *et al.* 2011; Lashkari Bod *et al.* 2010, 2011a), Kerman (Ghotbi Ravandi *et al.* 2015).

***Orthostigma laticeps* (Thomson, 1895)**

General distribution: Palaearctic and Oriental.

Distribution in Iran: Golestan (Ghahari and Fischer 2011c).

Remarks: Khajeh *et al.* (2014a) had erroneously recorded from Isfahan province with reference to Ghahari *et al.* (2011c).

***Orthostigma maculipes* (Haliday, 1838)**

General distribution: Palaearctic.

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

***Phaenocarpa brevipalpis* (Thomson, 1895)**

General distribution: Palaearctic.

Distribution in Iran: West Azarbaijan (Samin *et al.* 2014).

***Phaenocarpa ruficeps* (Nees, 1812)**

General distribution: Afrotropical, Palaearctic, Nearctic and Oriental.

Distribution in Iran: Khorasan Razavi (Ghahari *et al.* 2011d).

***Pseudopezomachus cursitans* (Ferrière, 1930)**

General distribution: Palaearctic.

Distribution in Iran: Golestan (Ghahari and Fischer 2011c).

***Pseudopezomachus masii* Nixon, 1940**

General distribution: Palaearctic.

Distribution in Iran: Ilam (Ghahari *et al.* 2011a).

***Synaldis concolor* (Nees, 1812)**

General distribution: Palaearctic.

Distribution in Iran: Fars (Lashkari Bod *et al.* 2010, 2011a), Qazvin (Ghahari *et al.* 2011b), East Azarbaijan (Rastegar *et al.* 2012), Eastern Iran (Yari *et al.* 2014), Kerman (Ghotbi Ravandi *et al.* 2015).

***Synaldis distracta* (Nees, 1834)**

General distribution: Palaearctic and Oriental.

Distribution in Iran: Isfahan (Ghahari *et al.* 2011c), Eastern Iran (Yari *et al.* 2014), Kerman (Ghotbi Ravandi *et al.* 2015).

***Synaldis megastigma* Fischer, 1967**

General distribution: Palaearctic.

Distribution in Iran: Golestan (Ghahari *et al.* 2011d).

Remarks: Khajeh *et al.* (2014a) had erroneously recorded from Guilan province with reference to Ghahari *et al.* (2011d).

***Synaldis ultima* Fischer, 1970**

General distribution: Palaearctic.

Distribution in Iran: Kerman (Ghotbi Ravandi *et al.* 2015).

**Tribe Dacnusiini Förster, 1862*****Aristelix persica* Peris-Felipo, 2015**

General distribution: Iran.

Distribution in Iran: Hormozgan (Peris-Felipo *et al.* 2015).

***Chorebus (Chorebus) affinis* (Nees, 1812)**

General distribution: Palaearctic.

Distribution in Iran: Mazandaran (Ghahari *et al.* 2010a, reported as *Chorebus longicornis* (Nees, 1811)), Fars (Lashkari Bod *et al.* 2010, 2011a), Khorasan Razavi (Ghahari *et al.* 2011d), Semnan (Samin 2015, reported as *C. longicornis*).

***Chorebus (Chorebus) axillaris* Fischer, Lashkari Bod, Rakhshani & Talebi, 2011**

General distribution: Iran.

Distribution in Iran: Fars (Fischer *et al.* 2011).

***Chorebus (Chorebus) gracilipes* (Thomson, 1895)**

General distribution: Palaearctic.

Distribution in Iran: Kordestan (Ghahari *et al.* 2010b), Fars (Samin *et al.* 2015b).

***Chorebus (Chorebus) groschkei* Griffiths, 1967**

General distribution: Palaearctic.

Distribution in Iran: Fars (Lashkari Bod *et al.* 2010, 2011a).

***Chorebus (Chorebus) longiarticulis* Fischer, Lashkari Bod, Rakhshani & Talebi, 2011**

General distribution: Iran.

Distribution in Iran: Fars (Fischer *et al.* 2011), Kerman (Ghotbi Ravandi *et al.* 2015).

Remarks: Ghotbi Ravandi *et al.* (2015) described the male of *C. longiarticulis*.

***Chorebus (Chorebus) mucronatus* (Telenga, 1935)**

General distribution: Palaearctic.

Distribution in Iran: Mazandaran (Ghahari *et al.* 2010b), Ilam (Ghahari *et al.* 2011a, reported as *Chorebus (Stiphrocera) mucronatus*), Eastern Iran (Yari *et al.* 2014), Golestan (Samin *et al.* 2015).

***Chorebus (Chorebus) nigridiremptus* Fischer, Lashkari Bod, Rakhshani & Talebi, 2011**

General distribution: Iran.

Distribution in Iran: Fars (Fischer *et al.* 2011).

***Chorebus (Chorebus) nigriscapousus* (Nixon, 1949)**

General distribution: Palaearctic.

Distribution in Iran: Eastern Iran (Yari *et al.* 2014).

***Chorebus (Chorebus) nixonii* Burghele, 1959**

General distribution: Palaearctic.

Distribution in Iran: East Azarbaijan (Ghahari and Fischer 2011a), Khuzestan (Samin *et al.* 2015b).

***Chorebus (Chorebus) parvungula* (Thomson, 1895)**

General distribution: Palaearctic.

Distribution in Iran: Eastern Iran (Yari *et al.* 2014), Kerman (Ghotbi Ravandi *et al.* 2015).

***Chorebus (Chorebus) properesam* Fischer, Lashkari Bod, Rakhshani & Talebi, 2011**

General distribution: Iran.

Distribution in Iran: Fars (Fischer *et al.* 2011).

***Chorebus (Chorebus) scabiosae* Griffiths, 1967**

General distribution: Palaearctic.

Distribution in Iran: Eastern Iran (Yari *et al.* 2014).

***Chorebus (Chorebus) stilifer* Griffiths, 1968**

General distribution: Germany and Iran.

Distribution in Iran: Fars (Lashkari Bod *et al.* 2010, 2011a; Fischer *et al.* 2011), Eastern Iran (Yari *et al.* 2014).

***Chorebus (Chorebus) solstitialis* (Stelfox, 1951)**

General distribution: Palaearctic.

Distribution in Iran: Eastern Iran (Yari *et al.* 2014).

***Chorebus (Chorebus) uliginosus* (Haliday, 1839)**

General distribution: Palaearctic.

Distribution in Iran: Mazandaran (Ghahari *et al.* 2010a), Kermanshah (Hazini *et al.* 2015, reported as *Chorebus (Stiphrocera)*

*uliginosus*), Kuhgiluyeh & Boyerahmad (Samin *et al.* 2015b).

Host: *Chromatomyia horticola* Goureau (Dip.: Agromyzidae) (Hazini *et al.* 2015).

***Chorebus (Chorebus) zarghanensis* Fischer, Lashkari Bod, Rakhshani & Talebi, 2011**

General distribution: Iran.

Distribution in Iran: Fars (Fischer *et al.* 2011).

***Chorebus (Phaenolexis) ares* (Nixon, 1944)**

General distribution: Palaearctic.

Distribution in Iran: Eastern Iran (Yari *et al.* 2014).

***Chorebus (Phaenolexis) bathyzonus* (Marshall, 1895)**

General distribution: Palaearctic.

Distribution in Iran: Sistan & Baluchestan (Sedighi *et al.* 2014), Kerman (Ghotbi Ravandi *et al.* 2015).

***Chorebus (Phaenolexis) compressiventris* (Telenga, 1935)**

General distribution: Palaearctic.

Distribution in Iran: Ardabil (Ghahari and Fischer 2011a), Zanjan (Samin 2015).

***Chorebus (Phaenolexis) femoratus* (Tobias, 1962)**

General distribution: Palaearctic.

Distribution in Iran: Ilam (Ghahari *et al.* 2011a).

***Chorebus (Phaenolexis) fuscipennis* (Nixon, 1937)**

General distribution: Palaearctic.

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

***Chorebus (Phaenolexis) gedanensis* (Ratzeburg, 1852)**

General distribution: Palaearctic.

Distribution in Iran: Khorasan Razavi (Samin *et al.* 2011), Qazvin (Samin 2015).

***Chorebus (Phaenolexis) heringiamus* Griffiths, 1967**

General distribution: Palaearctic.

Distribution in Iran: Golestan (Ghahari and Fischer 2011c).

***Chorebus (Phaenolexis) iridis* Griffiths, 1968**  
 General distribution: Palaearctic.  
 Distribution in Iran: Qazvin (Ghahari *et al.* 2011b).

***Chorebus (Phaenolexis) leptogaster* (Haliday, 1839)**  
 General distribution: Palaearctic.  
 Distribution in Iran: Golestan (Ghahari *et al.* 2011d), Eastern Iran (Yari *et al.* 2014).

***Chorebus (Phaenolexis) ornatus* (Telenga, 1935)**  
 General distribution: Palaearctic.  
 Distribution in Iran: Qazvin (Ghahari *et al.* 2011b).

***Chorebus (Phaenolexis) posticus* (Haliday, 1839)**  
 General distribution: Palaearctic and Nearctic.  
 Distribution in Iran: Hamadan (Ghahari *et al.* 2009d).

***Chorebus (Phaenolexis) tamsi* (Nixon, 1944)**  
 General distribution: Palaearctic.  
 Distribution in Iran: Fars (Lashkari Bod *et al.* 2010, 2011a; Fischer *et al.* 2011).

***Chorebus (Stiphrocera) aphantus* (Marshall, 1896)**  
 General distribution: Palaearctic and Oriental.  
 Distribution in Iran: Eastern Iran (Yari *et al.* 2014), Kermanshah (Hazini *et al.* 2015).  
 Host: *Chromatomyia horticola* Goureau (Dip.: Agromyzidae) (Hazini *et al.* 2015).

***Chorebus (Stiphrocera) asphodeli* Griffiths, 1968**  
 General distribution: Palaearctic.  
 Distribution in Iran: Qazvin (Ghahari *et al.* 2011b), Ardabil (Rastegar *et al.* 2012).

***Chorebus (Stiphrocera) baeticus* Griffiths, 1967**  
 General distribution: Palaearctic.  
 Distribution in Iran: Golestan (Ghahari and Fischer 2011c).

***Chorebus (Stiphrocera) cubocephalus* (Telenga, 1935)**  
 General distribution: Palaearctic.  
 Distribution in Iran: Eastern Iran (Yari *et al.* 2014), Sistan & Baluchestan (Sedighi *et al.* 2014).

***Chorebus (Stiphrocera) diremtus* (Nees, 1834)**  
 General distribution: Palaearctic.  
 Distribution in Iran: East Azarbaijan (Ghahari and Fischer 2011a), Golestan (Samin *et al.* 2015).

***Chorebus (Stiphrocera) flavipes* (Goureau, 1851)**  
 General distribution: Palaearctic.  
 Distribution in Iran: Guilan (Ghahari and Fischer 2011b), Ardabil (Ghahari *et al.* 2011d), Kerman (Samin *et al.* 2011), Charmahal & Bakhtiari (Samin *et al.* 2015b).

***Chorebus (Stiphrocera) lar* (Morley, 1924)**  
 General distribution: Palaearctic.  
 Distribution in Iran: Isfahan (Ghahari *et al.* 2011c), Eastern Iran (Yari *et al.* 2014), Sistan & Baluchestan (Sedighi *et al.* 2014), Kerman (Ghotbi Ravandi *et al.* 2015).

***Chorebus (Stiphrocera) merellus* (Nixon, 1937)**  
 General distribution: Palaearctic.  
 Distribution in Iran: Eastern Iran (Yari *et al.* 2014).

***Chorebus (Stiphrocera) misellus* (Marshall, 1895)**  
 General distribution: Palaearctic.  
 Distribution in Iran: Semnan (Ghahari *et al.* 2010b), Kerman (Ghotbi Ravandi *et al.* 2015).

***Chorebus (Stiphrocera) pseudomisellus* Griffiths, 1968**  
 General distribution: Palaearctic.  
 Distribution in Iran: Golestan (Ghahari and Fischer 2011c).

***Chorebus (Stiphrocera) spenceri* Griffiths, 1964**  
 General distribution: Palaearctic.  
 Distribution in Iran: Eastern Iran (Yari *et al.* 2014).

***Chorebus (Stiphrocera) tumidus* (Tobias, 1966)**  
 General distribution: Palaearctic.  
 Distribution in Iran: Golestan (Samin *et al.* 2011; Samin *et al.* 2015, reported as *Chorebus (Chorebus) tumidus*).



***Chorebus (Stiphrocera) venustus* (Tobias, 1962)**

General distribution: Palaearctic.  
Distribution in Iran: Isfahan (Ghahari *et al.* 2011c).

***Coelinidea elegans* (Curtis, 1829)**

General distribution: Palaearctic.  
Distribution in Iran: West Azarbaijan (Gadallah *et al.* 2015a).

***Coelinidea gracilis* (Curtis, 1829)**

General distribution: Palaearctic.  
Distribution in Iran: Fars (Fischer *et al.* 2011; Lashkari Bod *et al.* 2010, 2011a, reported as *Lepton gracilis*), Ilam (Ghahari *et al.* 2011a), Eastern Iran (Yari *et al.* 2014).

***Coloneura dice* (Nixon, 1943)**

General distribution: Palaearctic.  
Distribution in Iran: Eastern Iran (Yari *et al.* 2014).

***Dacnusa (Aphanta) hospita* (Förster, 1862)**

General distribution: Palaearctic.  
Distribution in Iran: Fars (Fischer *et al.* 2011; Lashkari Bod *et al.* 2010, 2011a), Kermanshah (Hazini *et al.* 2015).  
Host: *Chromatomyia horticola* Goureau (Dip.: Agromyzidae) (Hazini *et al.* 2015).

***Dacnusa (Aphanta) sasakawai* Takada, 1977**

General distribution: Palaearctic.  
Distribution in Iran: Eastern Iran (Yari *et al.* 2014, reported as *Dacnusa (Aphanta) distracta* Tobias, 1986).

***Dacnusa (Dacnusa) confinis* Ruthe, 1859**

General distribution: Palaearctic.  
Distribution in Iran: Qazvin (Ghahari *et al.* 2011b).

***Dacnusa (Dacnusa) gentianae* Griffiths, 1967**

General distribution: Palaearctic.  
Distribution in Iran: Isfahan (Ghahari *et al.* 2011c).

***Dacnusa (Dacnusa) pubescens* (Curtis, 1826)**

General distribution: Palaearctic.  
Distribution in Iran: West Azarbaijan (Samin *et al.* 2014).

***Dacnusa (Pachysema) abdita* (Haliday, 1839)**

General distribution: Palaearctic.  
Distribution in Iran: Kerman (Ghotbi Ravandi *et al.* 2015).

***Dacnusa (Pachysema) alpestris* Griffiths, 1967**

General distribution: Palaearctic.  
Distribution in Iran: Ilam (Ghahari *et al.* 2011a).

***Dacnusa (Pachysema) aterrима* Thomson, 1895**

General distribution: Palaearctic.  
Distribution in Iran: East Azarbaijan (Gadallah *et al.* 2015a).

***Dacnusa (Pachysema) clematidis* Griffiths, 1967**

General distribution: Poland and Iran.  
Distribution in Iran: Eastern Iran (Yari *et al.* 2014).

***Dacnusa (Pachysema) evadne* Nixon, 1937**

General distribution: Palaearctic.  
Distribution in Iran: Eastern Iran (Yari *et al.* 2014).

***Dacnusa (Pachysema) monticola* (Forster, 1862)**

General distribution: Palaearctic.  
Distribution in Iran: Eastern Iran (Yari *et al.* 2014).

***Dacnusa (Pachysema) sibirica* Telenga, 1935**

General distribution: Palaearctic and Oriental.  
Distribution in Iran: Ardabil (Fathi 2011), Sistan & Baluchestan (Sedighi *et al.* 2014).  
Host: *Chromatomyia horticola* Goureau (Dip.: Agromyzidae) (Fathi 2011).

***Protodacnusa aridula* (Thomson, 1895)**

General distribution: Palaearctic.  
Distribution in Iran: Fars (Ghahari *et al.* 2010b).

***Protodacnusa litoralis* Griffiths, 1964**

General distribution: Palaearctic.  
Distribution in Iran: Qazvin (Ghahari *et al.* 2011b).

**Subfamily Aphidiinae Haliday, 1833****Tribe Aphidiini Haliday, 1833*****Adialytus ambiguus* (Haliday, 1834)**

General distribution: Palaearctic, Nearctic and Oriental.

Distribution in Iran: East Azarbaijan (Starý 1979; Starý *et al.* 2000), Fars (Rakhshani *et al.* 2008b, 2012a; Taheri and Rakhshani 2013; Barahoei *et al.* 2013), Isfahan, Kerman (Rakhshani *et al.* 2012a; Barahoei *et al.* 2013), Kermanshah (Rakhshani *et al.* 2012a; Nazari *et al.* 2012), Kordestan (Nazari *et al.* 2012), North Khorasan (Rakhshani *et al.* 2012a; Rakhshani *et al.* 2012b), Khorasan Razavi (Rakhshani *et al.* 2012a).

Hosts: *Sipha elegans* del Guercio (Rakhshani *et al.* 2008b, 2012a; Taheri and Rakhshani 2013; Barahoei *et al.* 2013), *Sipha flava* (Forbes) (Nazari *et al.* 2012; Rakhshani *et al.* 2012a), *Sipha maydis* Passerini (Starý *et al.* 2000; Nazari *et al.* 2012; Rakhshani *et al.* 2012a, 2012b; Barahoei *et al.* 2013) and *Sipha* sp. (Hem.: Aphididae) (Starý 1979).

***Adialytus salicaphis* (Fitch, 1855)**

General distribution: Palaearctic, Nearctic, Neotropical and Oriental.

Distribution in Iran: Alborz (Starý 1979; Starý *et al.* 2000; Rakhshani *et al.* 2007b, 2012a), Fars (Rakhshani *et al.* 2007b, 2012a, Taheri and Rakhshani 2013; Barahoei *et al.* 2013, reported as *C. salijaponicus* ssp. *niger*), Guilan (Starý 1979; Yaghubi 1997; Rakhshani *et al.* 2007b; Talebi *et al.* 2009), Markazi (Rakhshani *et al.* 2007b, 2012a; Talebi *et al.* 2009; Barahoei *et al.* 2013), Isfahan (Rakhshani *et al.* 2007b; Barahoei *et al.* 2013, on *Chaitophorus* sp.), Mazandaran, Zanzan (Rakhshani *et al.* 2007b), Kerman (Barahoei *et al.* 2012; Barahoei *et al.* 2013; Rakhshani *et al.* 2012a), Kermanshah (Nazari *et al.* 2012), North Khorasan (Starý 1979; Starý *et al.* 2000; Rakhshani *et al.* 2012a, 2012b), Kordestan (Rakhshani *et al.* 2007b, 2012a; Talebi *et al.* 2009; Nazari *et al.* 2012), Qazvin (Rakhshani *et al.* 2007b; Talebi *et al.* 2009), Sistan & Baluchestan,

Tehran (Rakhshani *et al.* 2007b, 2012a; Talebi *et al.* 2009).

Hosts: *Chaitophorus euphraticus* Hodjat (Starý *et al.* 2000; Rakhshani *et al.* 2007b, 2012a; Talebi *et al.* 2009), *Chaitophorus leucomelas* Koch (Rakhshani *et al.* 2007b, 2012a; Taheri and Rakhshani 2013; Barahoei *et al.* 2013), *Chaitophorus populeti* (Panzer) (Rakhshani *et al.* 2007b, 2012a), *Chaitophorus populialbae* (Boyer de Fonscolombe) (Yaghubi 1997; Starý *et al.* 2000; Rakhshani *et al.* 2007b, 2012a; Barahoei *et al.* 2013), *Chaitophorus remaudierei* Pintera (Starý *et al.* 2000; Rakhshani *et al.* 2007b, 2012a; Talebi *et al.* 2009; Nazari *et al.* 2012), *Chaitophorus salijaponicus* Essig and Kuwana (Starý *et al.* 2000; Rakhshani *et al.* 2007b, 2012a, 2012b; Taheri and Rakhshani 2013; Nazari *et al.* 2012; Barahoei *et al.* 2013), *Chaitophorus truncatus* (Hausmann) (Rakhshani *et al.* 2007b; Talebi *et al.* 2009), *Chaitophorus vitellinae* (Schrank) (Rakhshani *et al.* 2007b, 2012a; Talebi *et al.* 2009; Barahoei *et al.* 2013) and *Chaitophorus* sp. (Hem.: Aphididae) (Starý 1979; Starý *et al.* 2000; Rakhshani *et al.* 2012a, 2012b; Barahoei *et al.* 2012, 2013).

***Adialytus thelaxis* (Starý, 1961)**

General distribution: Palaearctic.

Distribution in Iran: Kermanshah (Starý 1979; Starý *et al.* 2000; Nazari *et al.* 2012), Golestan (Starý 1979; Starý *et al.* 2000; Rakhshani *et al.* 2012a), Mazandaran (Starý 1979; Babae *et al.* 2000; Starý *et al.* 2000), Guilan (Rakhshani *et al.* 2012a).

Host: *Thelaxes suberi* (del Guercio, 1911) (Hem.: Aphididae) (Starý 1979; Babae *et al.* 2000; Starý *et al.* 2000; Nazari *et al.* 2012; Rakhshani *et al.* 2012a).

***Adialytus veronicaecola* (Starý, 1978)**

General distribution: Kazakhstan and Iran.

Distribution in Iran: Isfahan (Rakhshani *et al.* 2012a).

Hosts: *Aphis craccivora* Koch, *Aphis gossypii* Glover, *Aphis* sp. (Hem.: Aphididae) (Rakhshani *et al.* 2012a).

***Aphidius absinthii* Marshall, 1896**

General distribution: Palaearctic, Nearctic and Oriental.

Distribution in Iran: Guilan (Yaghubi 1997; Starý *et al.* 2000; Rakhshani *et al.* 2008a; Talebi *et al.* 2009), Kohgiluyeh & Boyerahmad (Starý 1979; Starý *et al.* 2000), Mazandaran (Starý 1979; Starý *et al.* 2000), Tehran (Starý *et al.* 2000), North Khorasan (Rakhshani *et al.* 2012b).

Hosts: *Macrosiphoniella abrotani* (Walker, 1852) (Starý *et al.* 2000; Rakhshani *et al.* 2008a, 2011; Talebi *et al.* 2009), *Macrosiphoniella artemisiae* (Boyer de Fonscolombe, 1841) (Rakhshani *et al.* 2008a, 2011; Talebi *et al.* 2009), *Macrosiphoniella helichrysi* Remaudiere, 1852 (Starý *et al.* 2000; Rakhshani *et al.* 2011), *Macrosiphoniella* near *macrura* Hille Ris Lambers, 1948 (Rakhshani *et al.* 2011), *Macrosiphoniella oblonga* (Mordvilko, 1901) (Yaghubi 1997; Starý *et al.* 2000; Rakhshani *et al.* 2008a, 2011; Talebi *et al.* 2009), *Macrosiphoniella pulvera* (Walker, 1848) (Starý 1979; Starý *et al.* 2000; Rakhshani *et al.* 2011), *Macrosiphoniella riedeli* Szelegiewics, 1963 (Rakhshani *et al.* 2011), *Macrosiphoniella tuberculata* (Nevsky, 1928) (Starý 1979; Starý *et al.* 2000; Rakhshani *et al.* 2011), *Macrosiphoniella* sp. (Hem.: Aphididae) (Starý *et al.* 2000; Rakhshani *et al.* 2011).

Remarks: *Aphidius asteris* has been synonymized with *Aphidius absinthii* (Yu *et al.* 2012). Recent evidences from Southeastern Europe have also confirmed the validity of both species (Kavallieratos *et al.* 2013; Barahoei *et al.* 2014).

***Aphidius arvensis* (Starý, 1960)**

General distribution: Palaearctic.

Distribution in Iran: Tehran (Starý 1979; Starý *et al.* 2000), Hamadan (Talebi *et al.* 2009; Nazari *et al.* 2012), Kordestan (Nazari *et al.* 2012), Fars (Taheri and Rakhshani 2013; Barahoei *et al.* 2013).

Hosts: *Coloradoa achilleae* Hille Ris Lambers (Hem.: Aphididae) (Starý 1979; Starý *et al.* 2000; Talebi *et al.* 2009; Nazari *et al.* 2012;

Taheri and Rakhshani 2013; Barahoei *et al.* 2013).

***Aphidius asteris* Haliday, 1834**

Distribution and hosts were recorded as *Aphidius absinthii* Marshall, 1896 (Starý 1979; Starý *et al.* 2000; Talebi *et al.* 2009; Nazari *et al.* 2012; Taheri and Rakhshani 2013; Barahoei *et al.* 2013), but after re-validation (Kavallieratos *et al.* 2013) it has only been found in North of Iran.

***Aphidius avenae* Haliday, 1834**

General distribution: Palaearctic, Nearctic and Oriental.

Distribution in Iran: Fars (Taheri and Rakhshani 2013).

Host: *Rhopalosiphum maidis* (Fitch) (Hem.: Aphididae) (Taheri and Rakhshani 2013).

***Aphidius eadyi* Starý, González & Hall, 1980**

General distribution: Palaearctic and Oceanic.

Distribution in Iran: Alborz (Gonzalez *et al.* 1978; Starý 1979; Starý *et al.* 2000; Rakhshani *et al.* 2006a; Rakhshani *et al.* 2008a), Ardabil (Gonzalez *et al.* 1978; Starý 1979; Starý *et al.* 2000), Hamadan (Rakhshani *et al.* 2006a, 2008a; Nazari *et al.* 2012), Isfahan (Rakhshani *et al.* 2006a; Rakhshani *et al.* 2008a; Barahoei *et al.* 2013), Kermanshah (Rakhshani *et al.* 2006a; Nazari *et al.* 2012), Kordestan, Qazvin, Sistan & Baluchestan, Zanzan (Rakhshani *et al.* 2006a), Markazi (Rakhshani *et al.* 2006a; Rakhshani *et al.* 2008a), Tehran (Rakhshani *et al.* 2008a).

Host: *Acyrtosiphon pisum* (Harris) (Hem.: Aphididae) (Gonzalez *et al.* 1978; Starý 1979; Starý *et al.* 1980, 2000; Rakhshani *et al.* 2006a, 2008a; Nazari *et al.* 2012; Barahoei *et al.* 2013).

***Aphidius ervi* Haliday, 1834**

General distribution: Afrotropical, Australasian, Palaearctic, Nearctic, Neotropical, Oceanic and Oriental.

Distribution in Iran: Alborz (Gonzalez *et al.* 1978; Starý 1979; Starý *et al.* 2000; Rakhshani *et al.* 2006a; Rakhshani *et al.* 2008a), Kerman (Gonzalez *et al.* 1978; Starý

*et al.* 2000; Barahoei *et al.* 2013), Tehran (Monajemi and Esmaili 1981; Rasulian 1985, 1989; Starý *et al.* 2000; Rakhshani *et al.* 2006a; Rakhshani *et al.* 2008a; Talebi *et al.* 2009), Golestan (Darvish-Mojeni and Bayat-Asadi 1995; Starý *et al.* 2000; Rakhshani *et al.* 2008a, 2008b), Zanjan, Qazvin (Rakhshani *et al.* 2006a), Hamadan (Rakhshani *et al.* 2006a; Rakhshani *et al.* 2008a; Nazari *et al.* 2012), Isfahan (Rakhshani *et al.* 2006a; Rakhshani *et al.* 2008a; Barahoei *et al.* 2013), Markazi (Rakhshani *et al.* 2008b), Guilan (Rakhshani *et al.* 2008a; Talebi *et al.* 2009), Kordestan (Rakhshani *et al.* 2006a; Rakhshani *et al.* 2008a; Nazari *et al.* 2012), Fars (Rakhshani *et al.* 2008a, 2008b; Taheri and Rakhshani 2013; Barahoei *et al.* 2013), Kermanshah (Rakhshani *et al.* 2006a; Nazari *et al.* 2012), North Khorasan (Rakhshani *et al.* 2012b).

Hosts: *Acyrtosiphon gossypii* Mordvilko (Barahoei *et al.* 2013), *Acyrtosiphon kondoi* Shinji (Gonzalez *et al.* 1978; Starý *et al.* 2000; Rakhshani *et al.* 2006a, 2008a, 2008b; Nazari *et al.* 2012; Barahoei *et al.* 2013), *Acyrtosiphon pisum* (Harris) (Starý and Gonzalez 1978; Gonzalez *et al.* 1978; Monajemi and Esmaili 1981; Rasulian 1985, 1989; Starý *et al.* 2000; Rakhshani *et al.* 2006a, 2008a, 2012b; Talebi *et al.* 2009; Taheri and Rakhshani 2013; Nazari *et al.* 2012; Barahoei *et al.* 2013), *Macrosiphum euphorbiae* (Thomas) (Rakhshani *et al.* 2008a), *Microlophium carnosum* (Buckton) (Rakhshani *et al.* 2008a; Talebi *et al.* 2009), *Myzus persicae* (Sulzer) (Rakhshani *et al.* 2008a; Barahoei *et al.* 2013), *Rhopalosiphum padi* (L.) (Taheri and Rakhshani 2013), *Sitobion avenae* (F.) (Darvish-Mojeni and Bayat-Asadi 1995; Rakhshani *et al.* 2008a; Barahoei *et al.* 2013), *Wahlgreniella nervata* (Gillette) (Hem.: Aphididae) (Barahoei *et al.* 2013).

#### ***Aphidius funebris* Mackauer, 1961**

General distribution: Palaearctic, Oceanic and Oriental.

Distribution in Iran: Tehran (Starý 1979; Starý *et al.* 2000; Rakhshani *et al.* 2008a),

Qazvin (Rakhshani *et al.* 2008a), Guilan (Rakhshani *et al.* 2008a; Talebi *et al.* 2009), Isfahan (Rakhshani *et al.* 2008a; Talebi *et al.* 2009; Barahoei *et al.* 2013), Kermanshah (Nazari *et al.* 2012), Kerman (Barahoei *et al.* 2012; Barahoei *et al.* 2013), Fars (Taheri and Rakhshani 2013; Barahoei *et al.* 2013).

Hosts: *Uroleucon acroptilidis* Kadyrbekov, Renxin and Shao (Barahoei *et al.* 2013), *Uroleucon chondrillae* (Nevsky) (Starý 1979; Starý *et al.* 2000; Rakhshani *et al.* 2008a), *Uroleucon cichorii* (Koch) (Rakhshani *et al.* 2008a), *Uroleucon compositae* (Theobald) (Rakhshani *et al.* 2008a; Talebi *et al.* 2009; Nazari *et al.* 2012; Barahoei *et al.* 2013), *Uroleucon erigeronense* (Thomas) (Rakhshani *et al.* 2008a; Talebi *et al.* 2009), *Uroleucon jaceae* (L.) (Rakhshani *et al.* 2008a; Talebi *et al.* 2009; Taheri and Rakhshani 2013; Nazari *et al.* 2012; Barahoei *et al.* 2013), *Uroleucon sonchi* (L.) (Rakhshani *et al.* 2008a; Taheri and Rakhshani 2013; Barahoei *et al.* 2013), *Uroleucon* sp. (Hem.: Aphididae) (Barahoei *et al.* 2012, 2013).

#### ***Aphidius hieraciorum* Starý, 1962**

General distribution: Palaearctic.

Distribution in Iran: Khuzestan (Mossadegh *et al.* 2011; Nazari *et al.* 2012).

Hosts: *Nasonovia ribisnigri* (Mosley) (Nazari *et al.* 2012), *Nasonovia* sp. (Hem.: Aphididae) (Mossadegh *et al.* 2011).

#### ***Aphidius iranicus* Rakhshani & Starý, 2007**

General distribution: Iran.

Distribution in Iran: Guilan (Tomanović *et al.* 2007; Talebi *et al.* 2009).

Host: *Titanosiphon bellicosum* Nevesky (Hem.: Aphididae) (Tomanović *et al.* 2007; Talebi *et al.* 2009).

#### ***Aphidius matricariae* Haliday, 1834**

General distribution: Afrotropical, Palaearctic, Nearctic, Neotropical, Oceanic and Oriental.

Distribution in Iran: East Azarbaijan (Starý 1979; Starý *et al.* 2000; Rakhshani *et al.* 2008a; Talebi *et al.* 2009), Alborz (Starý 1979; Starý *et al.* 2000; Rakhshani *et al.* 2008a; Talebi *et al.* 2009; Rakhshani 2012),

Tehran (Starý 1979; Starý *et al.* 2000; Rakhshani *et al.* 2008a, 2008b; Talebi *et al.* 2009; Rakhshani 2012), Sistan & Baluchestan (Bandani 1992; Starý *et al.* 2000; Rakhshani *et al.* 2008a, 2008b; Talebi *et al.* 2009), Fars (Gonzalez *et al.* 1992; Starý *et al.* 2000; Rakhshani *et al.* 2008a; Talebi *et al.* 2009; Rakhshani 2012; Taheri and Rakhshani 2013; Barahoei *et al.* 2013), Mazandaran (Starý *et al.* 2000), Guilan (Mokhtari *et al.* 2000; Starý *et al.* 2000; Talebi *et al.* 2009), Khuzestan (Rakhshani *et al.* 2008a, 2008b; Talebi *et al.* 2009; Mossadegh *et al.* 2011), Hamadan (Rakhshani *et al.* 2008a, 2008b; Nazari *et al.* 2012), Isfahan (Rakhshani *et al.* 2008a; Talebi *et al.* 2009; Barahoei *et al.* 2013), Markazi (Rakhshani *et al.* 2008b; Barahoei *et al.* 2013), Qom (Rakhshani *et al.* 2008a, 2008b; Barahoei *et al.* 2013), Kermanshah (Rakhshani *et al.* 2008b; Nazari *et al.* 2012; Rakhshani 2012), Khorasan Razavi (Jafari-Ahmadabadi *et al.* 2011; Jafari-Ahmadabadi and Modarres 2012; Rakhshani 2012), North Khorasan (Rakhshani *et al.* 2012b), Golestan, Kordestan (Rakhshani 2012), Kerman (Barahoei *et al.* 2012, 2013), Kohgiluyeh & Boyerahmad (Barahoei *et al.* 2013).

Hosts: *Amegosiphon platycaudum* (Narzikulov) (Nazari *et al.* 2012), *Aphis affinis* del Guercio (Rakhshani *et al.* 2012b; Nazari *et al.* 2012; Barahoei *et al.* 2013), *Aphis craccivora* Koch (Rakhshani *et al.* 2008a; Talebi *et al.* 2009; Mossadegh *et al.* 2011; Taheri and Rakhshani 2013; Nazari *et al.* 2012; Barahoei *et al.* 2013), *Aphis crepidis* (Börner) (Starý *et al.* 2000), *Aphis dlabolai* Holman (Barahoei *et al.* 2013), *Aphis euphorbiae* Kaltenbach (Rakhshani *et al.* 2008a; Talebi *et al.* 2009; Mossadegh *et al.* 2011; Barahoei *et al.* 2013), *Aphis fabae* Scopoli (Rakhshani *et al.* 2008a; Talebi *et al.* 2009; Mossadegh *et al.* 2011; Taheri and Rakhshani 2013; Nazari *et al.* 2012; Barahoei *et al.* 2013), *Aphis gossypii* Glover (Starý, 1979; Starý *et al.* 2000; Rakhshani *et al.* 2008a; Talebi *et al.* 2009; Mossadegh *et al.* 2011; Nazari *et al.* 2012;

Barahoei *et al.* 2013), *Aphis intybi* Koch (Taheri and Rakhshani 2013; Barahoei *et al.* 2013), *Aphis nasturtii* Kaltenbach (Nazari *et al.* 2012), *Aphis plantaginis* Goeze (Barahoei *et al.* 2013), *Aphis pomi* DeGeer (Rakhshani *et al.* 2008a; Rakhshani 2012; Barahoei *et al.* 2013), *Aphis punicae* Passerini (Nazari *et al.* 2012; Barahoei *et al.* 2013), *Aphis solanella* Theobald (Barahoei *et al.* 2013), *Aphis spiraeicola* Patch (Rakhshani 2012), *Aphis umbrella* Börner (Schlinger and Mackauer 1963; Starý *et al.* 2000; Rakhshani *et al.* 2008a; Talebi *et al.* 2009; Nazari *et al.* 2012), *Brachycaudus amygdalinus* (Schouteden) (Rakhshani 2012; Nazari *et al.* 2012), *Brachycaudus cardui* (L.) (Rakhshani *et al.* 2008a; Rakhshani 2012), *Brachycaudus divaricatae* Shaposhnikov (Jafari-Ahmadabadi *et al.* 2011; Jafari-Ahmadabadi and Modarres 2012), *Brachycaudus helichrysi* (Kaltenbach) (Mokhtari *et al.* 2000; Starý *et al.* 2000; Rakhshani *et al.* 2008a, 2012b; Talebi *et al.* 2009; Mossadegh *et al.* 2011; Rakhshani, 2012; Jafari-Ahmadabadi *et al.* 2011; Jafari-Ahmadabadi and Modarres 2012; Nazari *et al.* 2012; Barahoei *et al.* 2013), *Brachycaudus persicae* (Passerini) (Rakhshani, 2012), *Brachycaudus tragopogonis* (Kaltenbach) (Barahoei *et al.* 2013), *Capitophorus similis* van der Goot (Rakhshani *et al.* 2008a; Talebi *et al.* 2009), *Diuraphis noxia* (Kurdjumov) (Bandani 1992; Gonzalez *et al.* 1992; Zareh *et al.* 1995; Starý *et al.* 2000), *Dysaphis devecta* (Walker) (Starý *et al.* 2000), *Dysaphis plantaginea* (Passerini) (Radjabi 1989; Starý *et al.* 2000; Mossadegh *et al.* 2011; Rakhshani 2012), *Dysaphis pyri* (Boyer de Fonscolombe) (Radjabi 1989; Starý *et al.* 2000), *Eucarazzia elegans* (Ferrari) (Rakhshani *et al.* 2008a; Talebi *et al.* 2009; Barahoei *et al.* 2013), *Hyalopterus amygdali* (Blanchard) (Jafari-Ahmadabadi *et al.* 2011; Jafari-Ahmadabadi and Modarres 2012; Nazari *et al.* 2012), *Hyalopterus pruni* (Geoffroy) (Mokhtari *et al.* 2000; Starý *et al.* 2000), *Hyperomyzus lactucae* (L.) (Mossadegh *et al.* 2011), *Lipaphis erysmi*

(Kaltenbach) (Mossadegh *et al.* 2011), *Lipaphis lepidii* Nevsky (Starý 1979; Starý *et al.* 2000; Mossadegh *et al.* 2011), *Lipaphis pseudobrassicae* (Davis) (Barahoei *et al.* 2013), *Metopolophium dirhodum* (Walker) (Bandani 1992; Starý *et al.* 2000; Rakhshani *et al.* 2008a, b; Taheri and Rakhshani 2013; Nazari *et al.* 2012; Barahoei *et al.* 2013), *Myzus ascalonicus* Doncaster (Barahoei *et al.* 2013), *Myzus beybienkoi* (Narzykulov) (Starý *et al.* 2000), *Myzus cerasi* (F.) (Mokhtari *et al.* 2000; Starý *et al.* 2000; Rakhshani *et al.* 2008a; Rakhshani 2012), *Myzus certus* (Walker) (Barahoei *et al.* 2013), *Myzus ornatus* Laing (Starý *et al.* 2000), *Myzus persicae* (Sulzer) (Schlinger and Mackauer 1963; Starý 1979; Radjabi 1989; Starý *et al.* 2000; Rakhshani *et al.* 2008a; Talebi *et al.* 2009; Mossadegh *et al.* 2011; Jafari-Ahmadabadi *et al.* 2011; Jafari-Ahmadabadi and Modarres 2012; Rakhshani 2012; Nazari *et al.* 2012; Taheri and Rakhshani 2013; Barahoei *et al.* 2012, 2013), *Ovatus insitus* (Walker) (Rakhshani *et al.* 2008a; Rakhshani 2012), *Phorodon humuli* (Schrank) (Schlinger and Mackauer 1963; Bandani 1992; Starý *et al.* 2000), *Rhopalomyzus* sp. (Starý 1979), *Rhopalosiphum maidis* (Fitch) (Bandani 1992; Starý *et al.* 2000; Nazari *et al.* 2012; Barahoei *et al.* 2012, 2013), *Rhopalosiphum nymphaeae* (L.) (Mokhtari *et al.* 2000; Starý *et al.* 2000), *Rhopalosiphum padi* (L.) (Bandani 1992; Starý *et al.* 2000; Rakhshani *et al.* 2008a, 2008b; Mossadegh *et al.* 2011; Rakhshani 2012; Taheri and Rakhshani 2013; Nazari *et al.* 2012; Barahoei *et al.* 2013), *Schizaphis graminum* (Rondani) (Bandani 1992; Starý *et al.* 2000; Rakhshani *et al.* 2008a, 2008b; Nazari *et al.* 2012; Barahoei *et al.* 2013), *Sitobion avenae* (F.) (Bandani 1992; Starý *et al.* 2000; Rakhshani *et al.* 2008a, 2008b; Mossadegh *et al.* 2011; Barahoei *et al.* 2013), *Sitobion fragariae* (Walker) (Barahoei *et al.* 2013), *Wahlgreniella nervata* (Gillette) (Hem.: Aphididae) (Barahoei *et al.* 2013).

#### ***Aphidius persicus* Rakhshani & Starý, 2006**

General distribution: Iran and Iraq.

Distribution in Iran: Tehran, Zanjan (Rakhshani *et al.* 2006b, 2008a), Hamadan (Rakhshani *et al.* 2006b, 2008a; Nazari *et al.* 2012), Alborz (Rakhshani *et al.* 2008a), Khuzestan (Mossadegh *et al.* 2011), North Khorasan (Rakhshani *et al.* 2012b), Kerman (Barahoei *et al.* 2012, 2013), Fars (Taheri and Rakhshani 2013; Barahoei *et al.* 2013), Isfahan (Barahoei *et al.* 2013).

Hosts: *Macrosiphoniella* sp., *Uroleucon bielawskii* (Szelegiewicz), *Uroleucon carthami* Hille Ris Lambers (Barahoei *et al.* 2013), *Uroleucon chondrillae* (Nevsky) (Rakhshani *et al.* 2008a; Taheri and Rakhshani 2013; Nazari *et al.* 2012; Barahoei *et al.* 2013), *Uroleucon compositae* (Theobald), *Uroleucon ochropus* (Hille Ris Lambers) (Barahoei *et al.* 2013), *Uroleucon sonchi* (L.) (Rakhshani *et al.* 2008a; Mossadegh *et al.* 2011; Barahoei *et al.* 2012, 2013), *Uroleucon* sp. (Hem.: Aphididae) (Rakhshani *et al.* 2012b; Barahoei *et al.* 2012, 2013).

#### ***Aphidius platensis* Brethes, 1913**

General distribution: Afrotropical, Australasian, Palaearctic, Neotropical and Oriental.

Distribution in Iran: Qazvin (Starý 1979), Sistan & Baluchestan (Bandani 1992; Starý *et al.* 2000; Rakhshani *et al.* 2005a, 2006a; Rakhshani *et al.* 2008a, 2008b; Talebi *et al.* 2009), Fars (Starý *et al.* 2000; Rakhshani *et al.* 2008a; Rakhshani 2012; Taheri and Rakhshani 2013; Barahoei *et al.* 2013), Tehran (Rakhshani *et al.* 2005a; Rakhshani *et al.* 2008a, 2008b; Talebi *et al.* 2009; Rakhshani 2012), Alborz (Rakhshani *et al.* 2006a; Rakhshani *et al.* 2008a; Talebi *et al.* 2009), Golestan (Rakhshani *et al.* 2008b), Qom (Rakhshani *et al.* 2008b), Kermanshah (Rakhshani *et al.* 2008b; Nazari *et al.* 2012), Kordestan (Rakhshani *et al.* 2008a, 2008b; Nazari *et al.* 2012), Isfahan (Rakhshani *et al.* 2008a, 2008b; Talebi *et al.* 2009), North Khorasan (Rakhshani *et al.* 2008b, 2012b), Khorasan Razavi (Rakhshani *et al.* 2008a),

Khuzestan (Talebi et al. 2009; Mossadegh et al. 2011; Nazari et al. 2012), Ilam (Rakhshani 2012), Kohgiluyeh & Boyer-Ahmad (Barahoei et al. 2013).

Hosts: *Amegosiphon platicaudum* (Narzikulov) (Nazari et al. 2012), *Aphis craccivora* Koch (Rakhshani et al. 2005a, 2006a, 2008a; Talebi et al. 2009; Taheri and Rakhshani 2013; Barahoei et al. 2013), *Aphis fabae* Scopoli (Rakhshani et al. 2008a, 2012b; Talebi et al. 2009; Taheri and Rakhshani 2013; Barahoei et al. 2013), *Aphis gossypii* Glover (Rakhshani et al. 2008a; Talebi et al. 2009; Nazari et al. 2012), *Aphis intybi* Koch and *Aphis nerii* Boyer de Fonscolombe (Rakhshani et al. 2008a; Talebi et al. 2009; Taheri and Rakhshani 2013; Barahoei et al. 2013), *Aphis punicae* Passerini (Rakhshani et al. 2008a, 2012b; Taheri and Rakhshani 2013; Barahoei et al. 2013), *Aphis rumicis* L. (Rakhshani et al. 2012b), *Aphis umbrella* Börner (Rakhshani et al. 2008a; Talebi et al. 2009; Nazari et al. 2012), *Brachycaudus amygdalinus* (Schouteden) (Rakhshani, 2012; Barahoei et al. 2013), *Brachycaudus cardui* (L.) (Rakhshani et al. 2008a; Talebi et al. 2009; Taheri and Rakhshani 2013; Barahoei et al. 2013), *Brachycaudus helichrysi* (Kaltenbach) (Rakhshani et al. 2008a; Talebi et al. 2009), *Capitophorus elaeagni* (Del Guercio) (Rakhshani et al. 2008a; Talebi et al. 2009), *Diuraphis noxia* (Kurdjumov) (Bandani 1992; Starý et al. 2000), *Hayhurstia atriplicis* (L.) (Rakhshani et al. 2012b), *Hyalopterus amygdali* (Blanchard) (Taheri and Rakhshani 2013), *Hyalopterus pruni* (Geoffroy) (Mokhtari et al. 2000; Starý et al. 2000; Rakhshani et al. 2008a, 2012b; Jafari-Ahmadabadi et al. 2011; Jafari-Ahmadabadi and Modarres 2012; Rakhshani 2012; Nazari et al. 2012; Tomanović et al. 2012; Taheri and Rakhshani 2013; Barahoei et al. 2013), *Macrosiphum euphorbiae* (Thomas) (Taheri and Rakhshani 2013; Barahoei et al. 2013), *Macrosiphum rosae* (L.) (Taheri and Rakhshani 2013), *Melanaphis donacis* (Passerini) (Tomanović et al. 2012; Barahoei

et al. 2014), *Myzus persicae* (Sulzer) (Rakhshani et al. 2008a; Talebi et al. 2009; Mossadegh et al. 2011; Rakhshani 2012; Taheri and Rakhshani 2013; Barahoei et al. 2013), *Phorodon humuli* (Schrank) (Rakhshani et al. 2008a; Rakhshani 2012), *Rhopalosiphum padi* (L.) (Rakhshani et al. 2008a, 2008b; Nazari et al. 2012; Barahoei et al. 2013), *Schizaphis graminum* (Rondani) (Bandani 1992; Starý et al. 2000; Rakhshani et al. 2008a, 2008b; Barahoei et al. 2013), *Sitobion avenae* (F.) (Hem.: Aphididae) (Bandani 1992; Starý et al. 2000; Rakhshani et al. 2008a, 2008b; Barahoei et al. 2013).

Remarks: *Aphidius platensis* has been reported as *Aphidius colemani* Viereck, 1912. But based on molecular and morphological studies, this species separated from *Aphidius colemani* (Tomanović et al. 2014).

#### ***Aphidius popovi* Starý, 1978**

General distribution: Iran and Uzbekistan.

Distribution in Iran: Alborz, Tehran (Rakhshani et al. 2008a; Talebi et al. 2009), Kermanshah (Nazari et al. 2012), North Khorasan (Rakhshani et al. 2012b), Kerman (Barahoei et al. 2012, 2013).

Hosts: *Amphorophora catharinae* (Nevsky) (Rakhshani et al. 2008a, 2012b; Talebi et al. 2009; Nazari et al. 2012; Barahoei et al. 2013), *Metopolophium dirhodum* (Walker) (Hem.: Aphididae) (Barahoei et al. 2012, 2013).

Remarks: Association of *Aphidius popovi* with *Metopolophium dirhodum* seems suspicious and need confirmation.

#### ***Aphidius rhopalosiphii* de Stefani-Perez, 1902**

General distribution: Palaearctic, Nearctic, Neotropical, Oceanic and Oriental.

Distribution in Iran: Golestan (Starý et al. 2000; Rakhshani et al. 2008b), Fars (Starý et al. 2000; Rakhshani et al. 2008a, 2008b; Taheri and Rakhshani 2013; Barahoei et al. 2013), Sistan & Baluchestan (Rakhshani et al. 2008a), Tehran (Rakhshani et al. 2008a, 2008b), Khorasan Razavi, Kordestan (Rakhshani et al. 2008a), Hamadan,

Kermanshah (Rakhshani *et al.* 2008a, 2008b; Nazari *et al.* 2012), Khuzestan (Rakhshani *et al.* 2008a, 2008b; Mossadegh *et al.* 2011), Isfahan, Markazi, Qom (Rakhshani *et al.* 2008a, 2008b; Barahoei *et al.* 2013).

Hosts: *Diuraphis noxia* (Kurdjumov) (Starý *et al.* 2000), *Metopolophium dirhodum* (Walker) (Rakhshani *et al.* 2008a, b; Nazari *et al.* 2012; Barahoei *et al.* 2013), *Rhopalosiphum maidis* (Fitch) (Nazari *et al.* 2012), *Rhopalosiphum padi* (L.) (Starý *et al.* 2000; Rakhshani *et al.* 2008a, b; Nazari *et al.* 2012; Taheri and Rakhshani 2013; Barahoei *et al.* 2013), *Schizaphis graminum* (Rondani) (Rakhshani *et al.* 2008a, 2008b; Nazari *et al.* 2012; Barahoei *et al.* 2013), *Sitobion avenae* (F.) (Hem.: Aphididae) (Darvish-Mojeni 1994; Starý *et al.* 2000; Rakhshani *et al.* 2008a, 2008b; Mossadegh *et al.* 2011; Nazari *et al.* 2012; Barahoei *et al.* 2013).

#### ***Aphidius rosae* Haliday, 1833**

General distribution: Palaearctic, Nearctic, Neotropical, Oceanic and Oriental.

Distribution in Iran: Isfahan (Mehrparvar *et al.* 2005; Rakhshani *et al.* 2008a; Talebi *et al.* 2009; Barahoei *et al.* 2013), Alborz (Rakhshani *et al.* 2008a), Tehran (Rakhshani *et al.* 2008a; Talebi *et al.* 2009), Hamadan (Talebi *et al.* 2009; Nazari *et al.* 2012), Khuzestan (Mossadegh *et al.* 2011), Kerman (Barahoei *et al.* 2013).

Host: *Macrosiphum rosae* (L.) (Hem.: Aphididae) (Mehrparvar *et al.* 2005; Rakhshani *et al.* 2008a; Talebi *et al.* 2009; Mossadegh *et al.* 2011; Nazari *et al.* 2012; Barahoei *et al.* 2013).

#### ***Aphidius salicis* Haliday, 1834**

General distribution: Australasian, Palaearctic, Nearctic, Neotropical, Oceanic and Oriental.

Distribution in Iran: Alborz (Starý 1979; Starý *et al.* 2000), Tehran (Starý 1979; Starý *et al.* 2000; Rakhshani *et al.* 2007b, 2008a; Talebi *et al.* 2009), Fars (Taheri and Rakhshani 2013; Barahoei *et al.* 2013), Kohgiluyeh & Boyerahmad (Barahoei *et al.* 2013).

Hosts: *Cavariella aegopodii* (Scopoli) (Starý 1979; Starý *et al.* 2000; Rakhshani *et al.* 2007b, 2008a; Talebi *et al.* 2009; Taheri and Rakhshani 2013; Barahoei *et al.* 2013), *Cavariella aquatica* (Gillette and Bragg) (Starý 1979; Starý *et al.* 2000), *Cavariella aspidaphoides* Hille Ris Lambers (Starý 1979; Starý *et al.* 2000), *Cavariella theobaldi* (Gillette and Bragg) (Starý 1979; Starý *et al.* 2000), *Hyadaphis foeniculi* (Passerini) (Hem.: Aphididae) (Talebi *et al.* 2009).

#### ***Aphidius smithi* Sharma & Subba Rao, 1959**

General distribution: Australasian, Palaearctic, Nearctic, Neotropical, Oceanic and Oriental.

Distribution in Iran: Alborz (Gonzalez *et al.* 1978; Starý 1979; Starý *et al.* 2000; Rakhshani *et al.* 2006a; Rakhshani *et al.* 2008a), Fars (Rakhshani *et al.* 2008a), Guilan (Yaghubi 1997; Starý *et al.* 2000; Rakhshani *et al.* 2008a), Sistan & Baluchestan (Rakhshani *et al.* 2006a; Rakhshani *et al.* 2008a), Hamadan, Kermanshah, Kordestan (Rakhshani *et al.* 2006a; Rakhshani *et al.* 2008a; Nazari *et al.* 2012), Isfahan (Rakhshani *et al.* 2006a, 2008a; Barahoei *et al.* 2013), Kerman (Barahoei *et al.* 2012), North Khorasan (Rakhshani *et al.* 2012b).

Hosts: *Acyrtosiphon kondoi* Shinji (Gonzalez *et al.* 1978; Starý *et al.* 2000; Rakhshani *et al.* 2006a), *Acyrtosiphon pisum* (Harris) (Gonzalez *et al.* 1978; Starý 1979; Yaghubi 1997; Starý *et al.* 2000; Rakhshani *et al.* 2006a, 2008a, 2012b; Nazari *et al.* 2012; Barahoei *et al.* 2013), *Nearctaphis bakeri* (Cowen) (Barahoei *et al.* 2013), *Sitobion avenae* (F.) (Hem.: Aphididae) (Rakhshani *et al.* 2008).

Remarks: Association of *Aphidius smithi* with *Sitobion avenae* seems erroneous and it may come from a mix colony of dropped aphid on cereal host plant.

#### ***Aphidius stigmaticus* Rakhshani and Tomanović, 2011**

General distribution: Iran.

Distribution in Iran: Hamadan (Rakhshani *et al.* 2011).



Host: *Macrosiphoniella tanacetaria* Kaltenbach (Hem.: Aphididae) (Rakhshani *et al.* 2011).

***Aphidius transcaspicus* Telenga, 1958**

General distribution: Palaearctic and Oriental. Distribution in Iran: Qazvin (Starý *et al.* 2000), Guilan (Mokhtari *et al.* 2000; Starý *et al.* 2000), Fars (Starý *et al.* 2000; Rakhshani 2012; Taheri and Rakhshani 2013; Barahoei *et al.* 2013), Tehran (Rakhshani *et al.* 2008a; Rakhshani 2012), Isfahan (Rakhshani *et al.* 2008a; Rakhshani 2012; Barahoei *et al.* 2013), Khuzestan (Mossadegh *et al.* 2011), Khorasan-e-Razavi (Jafari-Ahmadabadi *et al.* 2011; Jafari-Ahmadabadi and Modarres 2012), East Azarbaijan (Mosavi *et al.* 2012), Hamadan (Rakhshani 2012), Ilam (Rakhshani 2012; Nazari *et al.* 2012), Kermanshah (Nazari *et al.* 2012), North Khorasan (Rakhshani 2012; Rakhshani *et al.* 2012b), Kerman (Barahoei *et al.* 2013), Sistan & Baluchestan (Barahoei *et al.* 2014).

Host: *Hyalopterus amygdali* (Blanchard) (Rakhshani *et al.* 2008a; Jafari-Ahmadabadi *et al.* 2011; Mossadegh *et al.* 2011; Rakhshani 2012; Jafari-Ahmadabadi and Modarres 2012; Taheri and Rakhshani 2013; Barahoei *et al.* 2013), *Hyalopterus pruni* (Geoffroy) (Mokhtari *et al.* 2000; Starý *et al.* 2000; Rakhshani *et al.* 2008a, 2012b; Jafari-Ahmadabadi *et al.* 2011; Jafari-Ahmadabadi and Modarres 2012; Rakhshani 2012; Nazari *et al.* 2012; Tomanović *et al.* 2012; Taheri and Rakhshani 2013; Barahoei *et al.* 2013), *Melanaphis donacis* (Passerini) (Tomanović *et al.* 2012; Barahoei *et al.* 2014).

Remarks: *Aphidius transcaspicus* has been synonymized with *Aphidius colemani* Viereck (Yu *et al.* 2012). Several morphological, biological and molecular studies revealed that *A. transcaspicus* is a different and valid species (Kavallieratos *et al.* 2013; Barahoei *et al.* 2014).

***Aphidius urticae* Haliday, 1834**

General distribution: Palaearctic, Nearctic, Oceanic and Oriental.

Distribution in Iran: Mazandaran (Starý *et al.* 2000), Guilan (Rakhshani *et al.* 2008a; Talebi *et al.* 2009), Kerman (Barahoei *et al.* 2013).

Hosts: *Acyrtosiphon pisum* (Harris) (Rakhshani *et al.* 2008a), *Acyrtosiphon gossypii* Mordvilko (Barahoei *et al.* 2013), *Acyrtosiphon* sp. (Starý and Gonzalez 1978), *Microlophium carnosum* (Buckton) (Hem.: Aphididae) (Starý *et al.* 2000; Talebi *et al.* 2009; Rakhshani *et al.* 2008a).

***Aphidius uzbekistanicus* Luzhetskii, 1960**

General distribution: Palaearctic, Nearctic, Neotropical and Oriental.

Distribution in Iran: Alborz (Starý 1979; Starý *et al.* 2000), Sistan & Baluchestan (Bandani 1992; Starý *et al.* 2000; Rakhshani *et al.* 2008a, 2008b), Golestan (Darvish-Mojeni and Bayat-Asadi 1995; Starý *et al.* 2000; Rakhshani *et al.* 2008b), Mazandaran (Starý *et al.* 2000), Khorasan Razavi (Starý *et al.* 2000; Rakhshani *et al.* 2008b), Tehran (Starý *et al.* 2000; Rakhshani *et al.* 2008a, 2008b), Fars (Starý *et al.* 2000; Rakhshani *et al.* 2008a, 2008b; Barahoei *et al.* 2013), Hamadan, Khuzestan, Qom (Rakhshani *et al.* 2008b), Kordestan, Markazi (Rakhshani *et al.* 2008a, 2008b), North Khorasan (Rakhshani *et al.* 2008b, 2012b), Isfahan (Rakhshani *et al.* 2008a, 2008b; Barahoei *et al.* 2013), Kermanshah (Nazari *et al.* 2012).

Hosts: *Diuraphis noxia* (Kurdjumov) (Bandani 1992; Zareh *et al.* 1995; Starý *et al.* 2000), *Metopolophium dirhodum* (Walker) (Rakhshani *et al.* 2008a, 2008b; Barahoei *et al.* 2013), *Rhopalosiphum maidis* (Fitch) (Bandani 1992; Starý *et al.* 2000), *Rhopalosiphum padi* (L.) (Starý 1979; Bandani 1992; Starý *et al.* 2000; Rakhshani *et al.* 2008a, 2008b; Nazari *et al.* 2012), *Schizaphis graminum* (Rondani) (Bandani 1992; Starý *et al.* 2000; Rakhshani *et al.* 2008a, 2008b; Barahoei *et al.* 2013), *Sitobion avenae* (F.) (Hem.: Aphididae) (Starý 1979; Bandani 1992; Darvish-Mojeni and Bayat-Asadi 1995; Starý *et al.* 2000; Rakhshani *et al.* 2008a, 2008b, 2012b; Barahoei *et al.* 2013).

***Aphidius (Euaphidius) cingulatus* Ruthe, 1859**

General distribution: Palaearctic, Nearctic, Neotropical and Oriental.

Distribution in Iran: Khorasan Razavi (Starý 1979; Starý *et al.* 2000; Rakhshani *et al.* 2007b), Alborz (Starý 1979; Starý *et al.* 2000; Rakhshani *et al.* 2007b, 2008a), Guilan (Rakhshani *et al.* 2007b, 2008a; Talebi *et al.* 2009, reported as *Euphidius cingulatus*), North Khorasan (Rakhshani *et al.* 2012b).

Hosts: *Pterocomma pilosum* Buckton (Starý 1979; Starý *et al.* 2000; Rakhshani *et al.* 2007b, 2008a, 2012b; Talebi *et al.* 2009), *Pterocomma populeum* (Kaltenbach) (Starý 1979; Rakhshani *et al.* 2007b, 2008a, 2012b), *Pterocomma* sp. (Hem.: Aphididae) (Starý *et al.* 2000).

***Aphidius (Euaphidius) setiger* (Mackauer, 1961)**

General distribution: Afrotropical, Palaearctic, Nearctic and Oriental.

Distribution in Iran: Lorestan (Starý 1979; Starý *et al.* 2000; Rakhshani *et al.* 2008a; Nazari *et al.* 2012).

Hosts: *Periphyllus testudinaceus* (Frenie) (Rakhshani *et al.* 2008a), *Periphyllus* sp. (Hem.: Aphididae) (Starý 1979; Starý *et al.* 2000; Nazari *et al.* 2012).

***Betuloxys hortorum* (Starý, 1960)**

General distribution: Palaearctic and Oriental.

Distribution in Iran: No specific locality cited (Mackauer and Starý 1967; Starý 1979; Starý *et al.* 2000).

Host: *Tinocallis saltans* (Nevsky) (Hem.: Aphididae) (Mackauer and Starý 1967; Starý 1979; Starý *et al.* 2000).

***Binodoxys acalephae* (Marshall, 1896)**

General distribution: Palaearctic, Nearctic and Oriental.

Distribution in Iran: West Azarbaijan (Starý 1979; Starý *et al.* 2000), Tehran (Starý 1979; Starý *et al.* 2000; Rakhshani *et al.* 2005a; Talebi *et al.* 2009), Kermanshah (Starý 1979; Starý *et al.* 2000, Talebi *et al.* 2009), Alborz, Sistan & Baluchestan (Rakhshani *et al.* 2005a), Guilan, Qazvin (Talebi *et al.* 2009),

Hamadan (Talebi *et al.* 2009; Rakhshani 2012; Nazari *et al.* 2012), Khorasan Razavi (Jafari-Ahmadabadi *et al.* 2011; Jafari-Ahmadabadi and Modarres 2012), Khuzestan (Talebi *et al.* 2009; Mossadegh *et al.* 2011; Nazari *et al.* 2012), Golestan (Rakhshani 2012), North Khorasan (Rakhshani *et al.* 2012b), Kordestan (Talebi *et al.* 2009; Nazari *et al.* 2012), Kerman (Barahoei *et al.* 2012, 2013), Isfahan (Barahoei *et al.* 2013).

Hosts: *Aphis affinis* del Guercio (Talebi *et al.* 2009; Barahoei *et al.* 2013), *Aphis craccivora* Koch (Starý 1979; Starý *et al.* 2000; Rakhshani *et al.* 2005a, 2012b; Talebi *et al.* 2009; Nazari *et al.* 2012; Barahoei *et al.* 2013), *Aphis euphorbiae* Kaltenbach (Talebi *et al.* 2009; Nazari *et al.* 2012), *Aphis fabae* Scopoli (Talebi *et al.* 2009; Rakhshani *et al.* 2012b; Nazari *et al.* 2012; Barahoei *et al.* 2013), *Aphis gossypii* Glover (Barahoei *et al.* 2013), *Aphis idaei* (Barahoei *et al.* 2014), *Aphis nerii* Boyer de Fonscolombe (Talebi *et al.* 2009), *Aphis pomi* de Geer (Rakhshani 2012), *Aphis spiraeicola* Patch (Rakhshani 2012), *Aphis umbrella* (Börner) (Mackauer and Starý 1967; Starý *et al.* 2000; Talebi *et al.* 2009; Nazari *et al.* 2012), *Aphis urticata* F. (Talebi *et al.* 2009), *Aphis* sp. (Starý 1979; Mossadegh *et al.* 2011), *Protaphis* sp. (Hem.: Aphididae) (Barahoei *et al.* 2012, 2013).

***Binodoxys angelicae* (Haliday, 1833)**

General distribution: Palaearctic and Oriental.

Distribution in Iran: Markazi (Radjabi 1989; Starý *et al.* 2000), Guilan (Yaghubi 1997; Starý *et al.* 2000), Tehran (Rakhshani *et al.* 2005a; Talebi *et al.* 2009), Alborz (Talebi *et al.* 2009), Khuzestan (Talebi *et al.* 2009; Mossadegh *et al.* 2011; Nazari *et al.* 2012), Fars (Talebi *et al.* 2009; Taheri and Rakhshani 2013; Barahoei *et al.* 2013), Khorasan Razavi (Jafari-Ahmadabadi *et al.* 2011; Jafari-Ahmadabadi and Modarres 2012), Golestan (Rakhshani 2012), Kermanshah (Nazari *et al.* 2012), Kerman (Barahoei *et al.* 2012, 2013), Isfahan (Barahoei *et al.* 2013).

Hosts: *Aphis acetosae* L. (Barahoei et al. 2013), *Aphis affinis* del Guercio (Mossadegh et al. 2011; Taheri and Rakhshani 2013; Barahoei et al. 2013), *Aphis craccivora* Koch (Rakhshani et al. 2005a; Mossadegh et al. 2011; Nazari et al. 2012; Barahoei et al. 2013), *Aphis epilobiara* Theobald (Nazari et al. 2012), *Aphis fabae* Scopoli (Talebi et al. 2009; Mossadegh et al. 2011; Nazari et al. 2012; Barahoei et al. 2012, 2013; Taheri and Rakhshani 2013), *Aphis farinosa* Gmelin (Yaghubi 1997; Starý et al. 2000), *Aphis gossypii* Glover (Yaghubi 1997; Starý et al. 2000; Mossadegh et al. 2011; Nazari et al. 2012; Barahoei et al. 2013), *Aphis hederæ* Kaltenbach (Yaghubi 1997; Starý et al. 2000), *Aphis idaei* van der Goot (Taheri and Rakhshani 2013; Barahoei et al. 2013), *Aphis nerii* Boyer de Fonscolombe (Talebi et al. 2009), *Aphis pomi* de Geer (Radjabi 1989; Starý et al. 2000; Rakhshani, 2012), *Aphis polygonata* Rusanova (Mossadegh et al. 2011), *Aphis rumicis* L. (Talebi et al. 2009; *Aphis solanella* Theobald (Barahoei et al. 2012, 2013), *Aphis spiraecola* Patch (Rakhshani 2012), *Aphis umbrella* (Börner) (Mackauer and Starý 1967; Starý et al. 2000; Talebi et al. 2009; Mossadegh et al. 2011; Nazari et al. 2012), *Aphis* sp. (Hem.: Aphididae) (Mossadegh et al. 2011).

***Binodoxys brevicornis* (Haliday, 1833)**

General distribution: Palaeartic, Neotropical and Oriental.

Distribution in Iran: Guilan (Yaghubi 1997; Starý et al. 2000), Markazi (Rakhshani et al. 2007b; Talebi et al. 2009; Barahoei et al. 2013).

Hosts: *Cavariella aegopodii* (Scopoli) (Rakhshani et al. 2007b; Talebi et al. 2009; Barahoei et al. 2013), *Hyadaphis* sp. (Hem.: Aphididae) (Yaghubi 1997; Starý et al. 2000).

***Binodoxys heraclei* (Haliday, 1833)**

General distribution: Palaeartic and Oriental.

Distribution in Iran: Khorasan Razavi (Rakhshani et al. 2007b; Talebi et al. 2009), Kermanshah (Nazari et al. 2012).

Host: *Cavariella aspidaphoides* Hille Ris Lambers (Hem.: Aphididae) (Rakhshani et al. 2007b; Talebi et al. 2009; Nazari et al. 2012).

***Diaeretiella rapae* (McIntosh, 1855)**

General distribution: Afrotropical, Australasian, Palaeartic, Nearctic, Neotropical, Oceanic and Oriental.

Distribution in Iran: Qazvin (Davatchi and Shojai 1968; Starý et al. 2000), Alborz (Starý 1979; Starý et al. 2000; Talebi et al. 2009), Tehran (Hodjat and Moradeshaghi 1988; Starý et al. 2000; Rakhshani et al. 2008b; Talebi et al. 2009), Sistan & Baluchestan (Bandani 1992; Starý et al. 2000; Rakhshani et al. 2006a; Rakhshani et al. 2008b; Talebi et al. 2009), Fars (Gonzalez et al. 1992; Ahmadi and Sarafrazi 1993; Starý et al. 2000; Rakhshani et al. 2008b; Taheri and Rakhshani 2013; Barahoei et al. 2013), Hamadan (Starý et al. 2000; Rakhshani et al. 2008b), Guilan, Semnan, Mazandaran (Starý et al. 2000), North Khorasan (Starý et al. 2000; Rakhshani et al. 2012b), Isfahan (Rakhshani et al. 2008b; Talebi et al. 2009; Barahoei et al. 2013), Golestan, Kordestan (Rakhshani et al. 2008b), Kermanshah (Rakhshani et al. 2008b; Nazari et al. 2012), Khorasan Razavi (Rakhshani et al. 2008b; Jafari-Ahmadabadi et al. 2011; Jafari-Ahmadabadi and Modarres 2012; Rakhshani 2012), Markazi, Qom (Rakhshani et al. 2008b; Barahoei et al. 2013), Khuzestan (Mossadegh et al. 2011), Kerman (Barahoei et al. 2012; Barahoei et al. 2013).

Hosts: *Amegosiphon platicaudum* (Narzikulov) (Nazari et al. 2012), *Aphis craccivora* Koch (Rakhshani et al. 2006a; Taheri and Rakhshani 2013; Nazari et al. 2012; Barahoei et al. 2013), *Aphis fabae* Scopoli (Barahoei et al. 2013), *Aphis gossypii* Glover (Mossadegh et al. 2011; Barahoei et al. 2013), *Aphis punicae* Passerini (Nazari et al. 2012), *Aphis solanella* Theobald, *Aphis umbrella* (Börner) (Barahoei et al. 2013), *Brachycaudus amygdalinus* (Schouteden) (Starý 1979; Starý et al. 2000), *Brachycaudus cardui* (L.) (Starý

1979; Starý *et al.* 2000), *Brevicoryne brassicae* (L.) (Davatchi and Shojai 1968; Starý 1979; Starý *et al.* 2000; Talebi *et al.* 2009; Mossadegh *et al.* 2011; Rakhshani *et al.* 2012b; Nazari *et al.* 2012; Barahoei *et al.* 2012, 2013; Taheri and Rakhshani 2013), *Diuraphis noxia* (Kurdjumov) (Bandani 1992; Gonzalez *et al.* 1992; Ahmadi and Sarafrazi 1993; Zareh *et al.* 1995; Ahmadi 2000; Starý *et al.* 2000; Rakhshani *et al.* 2008b, 2012b; Nazari *et al.* 2012; Barahoei *et al.* 2013), *Hayhurstia atriplicis* (L.) (Starý 1979; Starý *et al.* 2000; Nazari *et al.* 2012; Rakhshani *et al.* 2012b), *Lipaphis erysimi* (Kaltenbach) (Starý 1979; Starý *et al.* 2000; Mossadegh *et al.* 2011), *Lipaphis lepidii* Nevsky (Starý *et al.* 2000; Talebi *et al.* 2009; Mossadegh *et al.* 2011; Nazari *et al.* 2012), *Lipaphis pseudobrassicae* (Davis) (Barahoei *et al.* 2013), *Mariaella lambersi* Szelegiewicz (Starý 1979; Starý *et al.* 2000), *Metopolophium dirhodum* (Walker) (Rakhshani *et al.* 2008b), *Myzus beybienkoi* (Narzykulov) (Starý 1979; Starý *et al.* 2000), *Myzus persicae* (Sulzer) (Starý 1979; Hodjat and Moradeshaghi 1988; Starý *et al.* 2000; Rakhshani 2012; Mossadegh *et al.* 2011; Jafari-Ahmadabadi *et al.* 2011; Jafari-Ahmadabadi and Modarres 2012; Taheri and Rakhshani 2013; Nazari *et al.* 2012; Barahoei *et al.* 2013), *Rhopalosiphum maidis* (Fitch) (Starý 1979; Bandani 1992; Starý *et al.* 2000; Barahoei *et al.* 2013), *Rhopalosiphum padi* (L.) (Bandani 1992; Starý *et al.* 2000; Rakhshani *et al.* 2008b; Mossadegh *et al.* 2011; Barahoei *et al.* 2013), *Saltusaphis scirpus* Theobald (Starý *et al.* 2000), *Schizaphis graminum* (Rondani) (Starý 1979; Bandani 1992; Starý *et al.* 2000; Rakhshani *et al.* 2008b; Barahoei *et al.* 2013), *Sitobion avenae* (F.) (Hem.: Aphididae) (Bandani 1992; Starý *et al.* 2000; Rakhshani *et al.* 2008b; Mossadegh *et al.* 2011; Rakhshani *et al.* 2012b; Barahoei *et al.* 2013).

#### ***Lipolexis gracilis* Förster, 1862**

General distribution: Palaearctic and Oriental. Distribution in Iran: North Khorasan (Rakhshani *et al.* 2012b), Markazi (Barahoei *et al.* 2013; Alikhani *et al.* 2013).

Hosts: *Aphis fabae* Scolopli (Rakhshani *et al.* 2008d), *Aphis salviae* Walker (Barahoei *et al.* 2013; Alikhani *et al.* 2013), *Brachycaudus amygdalinus* (Schouteden) (Hem.: Aphididae) (Rakhshani *et al.* 2012b).

#### ***Lysiphlebus confusus* Tremblay & Eady, 1978**

General distribution: Palaearctic and Oriental.

Distribution in Iran: Khorasan Razavi (Starý 1979; Starý *et al.* 2000), Tehran (Starý 1979; Starý *et al.* 2000; Rakhshani *et al.* 2005a; Talebi *et al.* 2009), North Khorasan (Starý 1979; Starý *et al.* 2000; Rakhshani *et al.* 2012b), Mazandaran (Aghajanzadeh *et al.* 1995; Starý *et al.* 2000), Guilan (Yaghubi 1997; Starý *et al.* 2000; Talebi *et al.* 2009), Sistan & Baluchestan (Rakhshani *et al.* 2005a, 2006a), Hamadan (Rakhshani *et al.* 2007b; Talebi *et al.* 2009; Nazari *et al.* 2012), Ardabil (Talebi *et al.* 2009), Kermanshah (Nazari *et al.* 2012), Kerman (Barahoei *et al.* 2012; Barahoei *et al.* 2013), Fars (Taheri and Rakhshani 2013; Barahoei *et al.* 2013).

Hosts: *Acyrtosiphon* sp. (Starý *et al.* 2000), *Aphis affinis* del Guercio (Taheri and Rakhshani 2013), *Aphis craccivora* Koch (Starý 1979; Starý *et al.* 2000; Rakhshani *et al.* 2005a, 2006a; Talebi *et al.* 2009; Nazari *et al.* 2012; Barahoei *et al.* 2013; Taheri and Rakhshani 2013), *Aphis fabae* Scolopli (Talebi *et al.* 2009; Nazari *et al.* 2012), *Aphis farinosa* Gmelin (Yaghubi, 1997; Starý *et al.* 2000; Rakhshani *et al.* 2007b; Talebi *et al.* 2009; Nazari *et al.* 2012), *Aphis gossypii* Glover (Nazari *et al.* 2012), *Aphis idaei* van der Goot (Taheri and Rakhshani 2013; Barahoei *et al.* 2013), *Aphis intybi* Koch (Taheri and Rakhshani 2013; Barahoei *et al.* 2013), *Aphis verbasci* Schrank (Yaghubi 1997; Starý *et al.* 2000; Talebi *et al.* 2009; Rakhshani *et al.* 2012b; Barahoei *et al.* 2013), *Aulacorthum* sp. (Starý 1979), *Brachycaudus cardui* (L.) (Yaghubi 1997; Starý *et al.* 2000), *Brachycaudus helichrysi* (Kaltenbach) (Nazari *et al.* 2012), *Brachyunguis skafi* Remaudiere and Talhouk (Starý *et al.* 2000), *Ephedraphis ephedrae* (Nevsky) (Starý 1979;

Starý *et al.* 2000), *Hyperomyzus lactucae* (L.) (Barahoei *et al.* 2013), *Macrosiphoniella tapuskae* Hottes and Frison (Starý 1979; Starý *et al.* 2000; Rakhshani *et al.* 2011), *Protaphis* sp. (Starý 1979), *Toxoptera aurantii* (Boyer de Fonscolombe) (Aghajanzadeh *et al.* 1995; Starý *et al.* 2000), *Uroleucon* sp. (Hem.: Aphididae) (Barahoei *et al.* 2012, 2013).

***Lysiphlebus desertorum* Starý, 1965**

General distribution: Palaearctic.

Distribution in Iran: Tehran (Starý 1979), North Khorasan (Starý 1979; Starý *et al.* 2000; Rakhshani *et al.* 2012b), Kermanshah (Talebi *et al.* 2009), Kordestan (Talebi *et al.* 2009; Nazari *et al.* 2012), Kerman (Barahoei *et al.* 2013).

Hosts: *Aphis craccivora* Koch (Barahoei *et al.* 2013), *Aphis* sp. (Rakhshani *et al.* 2012b), *Protaphis terricola* Walker (Barahoei *et al.* 2013), *Protaphis* sp. (Talebi *et al.* 2009; Nazari *et al.* 2012), *Xerobion cinae* (Nevsky) (Hem.: Aphididae) (Starý 1979; Starý *et al.* 2000; Barahoei *et al.* 2013).

***Lysiphlebus fabarum* (Marshall, 1896)**

General distribution: Australasian, Palaearctic, Oceanic and Oriental.

Distribution in Iran: Fars (Davatchi and Shojai 1968; Starý 1979; Starý *et al.* 2000; Taheri and Rakhshani 2013; Barahoei *et al.* 2013), East Azarbaijan, West Azarbaijan (Starý 1979; Starý *et al.* 2000), Alborz (Starý 1979; Starý *et al.* 2000; Rakhshani *et al.* 2005a, 2006a; Talebi *et al.* 2009), Golestan (Starý 1979; Starý *et al.* 2000; Rakhshani 2012), Tehran (Starý 1979; Monajemi and Esmaili 1981; Radjabi 1989; Starý *et al.* 2000; Rakhshani *et al.* 2005a, 2006a; Talebi *et al.* 2009; Rakhshani 2012), Khorasan Razavi (Starý 1979; Starý *et al.* 2000; Jafari-Ahmadabadi *et al.* 2011; Jafari-Ahmadabadi and Modarres 2012), Mazandaran (Aghajanzadeh *et al.* 1995; Starý *et al.* 2000), Guilan (Yaghubi 1997; Mokhtari *et al.* 2000; Starý *et al.* 2000; Talebi *et al.* 2009), Isfahan (Starý *et al.* 2000; Rakhshani *et al.* 2006a;

Rakhshani *et al.* 2008b; Talebi *et al.* 2009; Rakhshani 2012; Barahoei *et al.* 2013), Sistan & Baluchestan (Rakhshani *et al.* 2005a, 2006a; Rakhshani *et al.* 2008b; Talebi *et al.* 2009), Zanzan (Rakhshani *et al.* 2006a), Qazvin (Rakhshani *et al.* 2006a; Talebi *et al.* 2009), Hamadan (Rakhshani *et al.* 2006a; Talebi *et al.* 2009; Nazari *et al.* 2012), Kordestan (Rakhshani *et al.* 2006a; Talebi *et al.* 2009; Nazari *et al.* 2012), Kermanshah (Talebi *et al.* 2009; Nazari *et al.* 2012; Rakhshani *et al.* 2006a; Rakhshani 2012), Markazi (Talebi *et al.* 2009; Barahoei *et al.* 2013), Khuzestan (Mossadegh *et al.* 2011; Nazari *et al.* 2012), Kerman (Barahoei *et al.* 2011, 2012, 2013), North Khorasan (Rakhshani *et al.* 2012b), Qom (Barahoei *et al.* 2013).

Hosts: *Acyrtosiphon ilka* Eastop (Starý 1979; Starý *et al.* 2000), *Acyrtosiphon gossypii* Mordvilko (Barahoei *et al.* 2013), *Acyrtosiphon lactucae* (Passerini) (Starý *et al.* 2000), *Aphis acetosae* L. (Yaghubi 1997; Starý *et al.* 2000; Barahoei *et al.* 2013), *Aphis affinis* del Guercio (Yaghubi 1997; Starý *et al.* 2000; Talebi *et al.* 2009; Rakhshani *et al.* 2012b; Taheri and Rakhshani 2013; Nazari *et al.* 2012; Tomanović *et al.* 2012; Barahoei *et al.* 2013), *Aphis alexandrae* (Nevsky) (Rakhshani *et al.* 2012b), *Aphis althaeae* (Nevsky) (Starý 1979; Starý *et al.* 2000; Rakhshani *et al.* 2012b), *Aphis anthemidis* Börner (Talebi *et al.* 2009; Nazari *et al.* 2012), *Aphis craccivora* Koch (Starý 1979; Monajemi and Esmaili 1981; Yaghubi 1997; Starý *et al.* 2000; Rakhshani *et al.* 2005a, 2006a, 2012b; Talebi *et al.* 2009; Mossadegh *et al.* 2011; Barahoei *et al.* 2011, 2012, 2013; Nazari *et al.* 2012; Taheri and Rakhshani 2013), *Aphis epilobii* Kaltenbach (Nazari *et al.* 2012), *Aphis eunymii* F. (Talebi *et al.* 2009), *Aphis euphorbicola* Rezwani and Lampel (Rakhshani *et al.* 2012b; Barahoei *et al.* 2013), *Aphis fabae* Scopoli (Davatchi and Shojai 1968; Yaghubi 1997; Starý *et al.* 2000; Talebi *et al.* 2009; Bagheri-Matin *et al.* 2009; Rakhshani *et al.* 2012b; Nazari *et al.* 2012;

- Taheri and Rakhshani 2013; Barahoei *et al.* 2011, 2012, 2013), *Aphis gerardianae* Mordvilko (Rakhshani *et al.* 2012b), *Aphis gossypii* Glover (Starý 1979; Yaghubi 1997; Starý *et al.* 2000; Talebi *et al.* 2009; Mossadegh *et al.* 2011; Taheri and Rakhshani 2013; Rakhshani *et al.* 2012b; Barahoei *et al.* 2011, 2012, 2013; Nazari *et al.* 2012), *Aphis idaei* van der Goot (Talebi *et al.* 2009; Taheri and Rakhshani 2013; Barahoei *et al.* 2013), *Aphis intybi* Koch (Yaghubi 1997; Starý *et al.* 2000; Talebi *et al.* 2009; Taheri and Rakhshani 2013; Rakhshani *et al.* 2012b), *Aphis nasturtii* Kaltenbach (Starý 1979; Starý *et al.* 2000; Nazari *et al.* 2012; Barahoei *et al.* 2013), *Aphis nerii* Boyer de Fonscolombe (Yaghubi, 1997; Starý *et al.* 2000; Talebi *et al.* 2009; Barahoei *et al.* 2013), *Aphis origani* Passerini, *Aphis plantaginis* Goeze (Barahoei *et al.* 2013), *Aphis pomi* DeGeer (Radjab 1989; Malkeshi 1997; Starý *et al.* 2000; Rakhshani 2012), *Aphis punicae* (Passerini) (Talebi *et al.* 2009; Taheri and Rakhshani 2013; Nazari *et al.* 2012; Barahoei *et al.* 2013), *Aphis ruborum* Blackman (Starý 1979; Yaghubi 1997; Starý *et al.* 2000), *Aphis rumicis* L. (Yaghubi 1997; Starý *et al.* 2000; Talebi *et al.* 2009; Nazari *et al.* 2012), *Aphis salviae* Walker (Starý 1979; Starý *et al.* 2000), *Aphis solanella* Theobald (Nazari *et al.* 2012; Barahoei *et al.* 2013), *Aphis spiraecola* Patch (Yaghubi 1997; Starý *et al.* 2000; Rakhshani 2012), *Aphis taraxacicola* (Börner) (Starý 1979; Starý *et al.* 2000), *Aphis umbrella* (Börner) (Starý *et al.* 2000; Talebi *et al.* 2009; Nazari *et al.* 2012; Barahoei *et al.* 2013), *Aphis urticata* Gmelin (Yaghubi 1997; Starý *et al.* 2000), *Aphis* sp. (Starý 1979; Yaghubi 1997; Starý *et al.* 2000; Nazari *et al.* 2012; Barahoei *et al.* 2013), *Brachycaudus amygdalinus* (Schouteden) (Nazari *et al.* 2012; Rakhshani 2012), *Brachycaudus cardui* (L.) (Yaghubi 1997; Starý *et al.* 2000; Talebi *et al.* 2009; Rakhshani *et al.* 2012b; Taheri and Rakhshani 2013; Nazari *et al.* 2012; Barahoei *et al.* 2013), *Brachycaudus helichrysi* (Kaltenbach) (Yaghubi 1997; Starý *et al.* 2000; Rakhshani 2012; Jafari-Ahmadabadi *et al.* 2011; Jafari-Ahmadabadi and Modarres 2012; Taheri and Rakhshani 2013; Nazari *et al.* 2012; Barahoei *et al.* 2013), *Brachycaudus persicae* (Passerini) (Rakhshani 2012), *Brachycaudus tragopogonis setosus* Hille Ris Lambers (Starý *et al.* 2000; Barahoei *et al.* 2012, 2013; Rakhshani *et al.* 2012b), *Brachyunguis harmalae* Das (Talebi *et al.* 2009; Rakhshani *et al.* 2012b), *Brachyunguis zygophylli* (Nevsky) (Barahoei *et al.* 2011, 2012, 2013), *Coloradoa* sp. (Starý 1979; Starý *et al.* 2000), *Dysaphis lappae* Koach (Starý 1979), *Dysaphis plantaginea* (Passerini) (Starý *et al.* 2000; Rakhshani 2012; Barahoei *et al.* 2013), *Dysaphis radicola* (Mordvilko), *Hyadaphis coriandri* (Passerini), *Lipaphis erysimi* (Kaltenbach), *Lipaphis fritzmulleri* Börner, *Myzus beybienkoi* (Narzikulov), *Protaphis elongata* (Nevsky) (Talebi *et al.* 2009), *Hayhurstia atriplicis* (L.) (Nazari *et al.* 2012), *Hyalopterus amygdali* (Blanchard) (Rakhshani 2012), *Hyalopterus pruni* (Geoffroy) (Jafari-Ahmadabadi *et al.* 2011; Jafari-Ahmadabadi and Modarres 2012), *Lipaphis lepidii* Nevsky (Starý 1979; Starý *et al.* 2000; Talebi *et al.* 2009), *Macrosiphoniella papilata* Holman (Barahoei *et al.* 2013), *Macrosiphoniella sanborni* (Gillette) (Yaghubi 1997; Starý *et al.* 2000), *Macrosiphum rosae* (L.) (Taheri and Rakhshani 2013), *Melanaphis* sp. (Barahoei *et al.* 2012, 2013), *Melanaphis sacchari* (Zehntner) (Barahoei *et al.* 2011), *Metopolophium dirhodum* (Walker) (Barahoei *et al.* 2013), *Myzus persicae* (Sulzer) (Talebi *et al.* 2009; Barahoei *et al.* 2013), *Phorodon humuli* (Schrank) (Mokhtari *et al.* 2000; Starý *et al.* 2000), *Protaphis terricola* Walker (Barahoei *et al.* 2013), *Protaphis* sp. (Starý 1979; Barahoei *et al.* 2013), *Rhopalosiphum nymphaeae* (L.) (Mokhtari *et al.* 2000; Starý *et al.* 2000), *Rhopalosiphum padi* (L.) (Rakhshani *et al.* 2008b; Nazari *et al.* 2012; Taheri and Rakhshani 2013), *Saltusaphis scirpus* Theobald (Starý *et al.* 2000; Tomanović *et al.*

2012), *Saltusaphis* sp. (Starý 1979), *Toxoptera aurantii* (Boyer de Fonscolombe) (Hem.: Aphididae) (Aghajanzadeh *et al.* 1995; Starý *et al.* 2000).

***Lysiphlebus testaceipes* (Cresson, 1880)**

General distribution: Afrotropical, Australasian, Palearctic, Nearctic, Neotropical, Oceanic and Oriental.

Distribution in Iran: Tehran (Rakhshani *et al.* 2005a).

Host: *Aphis craccivora* Koch (Hem.: Aphididae) (Rakhshani *et al.* 2005a).

***Monoctonia vesicarii* Tremblay, 1991**

General distribution: Palearctic.

Distribution in Iran: Ardabil (Ghafouri Moghaddam *et al.* 2012), Tehran (Rakhshani *et al.* 2015).

Host: *Pemphigus spirothecae* Passerini (Hem.: Aphididae) (Ghafouri Moghaddam *et al.* 2012).

***Monoctonus mali* van Achterberg, 1989**

General distribution: Palearctic.

Distribution in Iran: West Azarbaijan (Mosavi *et al.* 2012).

***Pauesia antennata* (Mukerji, 1950)**

General distribution: Palearctic.

Distribution in Iran: Hamadan (Rakhshani *et al.* 2005b), Ardabil, Tehran (Rakhshani *et al.* 2005b; Rakhshani 2012), Sistan & Baluchestan (Rakhshani *et al.* 2005b; Talebi *et al.* 2009; Rakhshani 2012), Kermanshah (Rakhshani 2012; Nazari *et al.* 2012), North Khorasan (Rakhshani 2012; Rakhshani *et al.* 2012b), Kerman (Rakhshani 2012; Barahoei *et al.* 2013).

Host: *Pterochloroides persicae* (Cholodkovsky) (Hem.: Aphididae) (Starý *et al.* 2000; Rakhshani *et al.* 2005b, 2012b; Talebi *et al.* 2009; Rakhshani 2012; Nazari *et al.* 2012; Barahoei *et al.* 2013).

***Pauesia hazratbalensis* Bhagat, 1981**

General distribution: India, Iran, Kyrgyzstan.

Distribution in Iran: Tehran (Starý *et al.* 2005), North Khorasan (Rakhshani *et al.* 2012b).

Host: *Cinara (Cupressobium) tujafilina* (del Guercio) (Hem.: Aphididae) (Starý *et al.* 2005; Rakhshani *et al.* 2012b).

***Tamyrtrichophorus petiolaris* Mackauer, 1961**

General distribution: Iran.

Distribution in Iran: Tehran (Starý *et al.* 2000).

Host: *Brachycaudus persicae* (Passerini) (Hem.: Aphididae) (Starý *et al.* 2000).

***Trioxys asiaticus* Telenga, 1953**

General distribution: Palearctic and Oriental.

Distribution in Iran: Alborz (Starý *et al.* 2000), Tehran (Talebi *et al.* 2009), Kerman (Talebi *et al.* 2009; Barahoei *et al.* 2013).

Hosts: *Acyrtosiphon gossypii* Mordvilko (Starý *et al.* 2000; Rakhshani *et al.* 2008c; Talebi *et al.* 2009; Barahoei *et al.* 2013), *Acyrtosiphon pisum* (Harris) (Hem.: Aphididae) (Barahoei *et al.* 2013).

***Trioxys cirsii* (Curtis, 1831)**

General distribution: Australasian, Palearctic and Nearctic.

Distribution in Iran: Mazandaran (Babaei *et al.* 2000; Starý *et al.* 2000).

Host: *Drepanosiphum platanoidis* (Schrank) (Hem.: Aphididae) (Babaei *et al.* 2000; Starý *et al.* 2000).

***Trioxys complanatus* Quilis, 1931**

General distribution: Afrotropical, Australasian, Palearctic, Nearctic, Neotropical, Oceanic and Oriental.

Distribution in Iran: West Azarbaijan (Starý 1979; Starý *et al.* 2000), Tehran (Monajemi and Esmaili 1981; Starý *et al.* 2000; Rakhshani *et al.* 2006a), Alborz, Ardabil, Markazi, Qazvin, Semnan, Sistan & Baluchestan, Zanjan (Rakhshani *et al.* 2006a), Hamadan, Kermanshah, Kordestan (Rakhshani *et al.* 2006a; Nazari *et al.* 2012), Isfahan (Rakhshani *et al.* 2006a; Barahoei *et al.* 2013), North Khorasan (Rakhshani *et al.* 2012b), Kerman (Barahoei *et al.* 2013).

Hosts: *Therioaphis khayami* Remaudiere (Starý *et al.* 2000), *Therioaphis riehmii* (Börner) (Starý 1979; Starý *et al.* 2000), *Therioaphis trifolii* (Monell) (Farahbakhsh

1961; Starý 1979; Monajemi and Esmaili 1981; Starý *et al.* 2000; Rakhshani *et al.* 2006a, 2008c, 2012b; Nazari *et al.* 2012; Barahoei *et al.* 2013), *Therioaphis* sp. (Hem.: Aphididae) (Starý 1979).

***Trioxys curvicaudus* Mackauer, 1967**

General distribution: Palaearctic and Nearctic. Distribution in Iran: Tehran (Rakhshani *et al.* 2008c).

Host: *Eucalipterus tilliae* (L.) (Hem.: Aphididae) (Rakhshani *et al.* 2008c).

***Trioxys metacarpalis* Rakhshani and Starý, 2012**

General distribution: Iran.

Distribution in Iran: North Khorasan (Rakhshani *et al.* 2008c, reported as *Trioxys parauctus* Starý, 1960; Rakhshani *et al.* 2012b).

Host: *Chaitaphis tenuicauda* Nevsky (Hem.: Aphididae) (Rakhshani *et al.* 2012b).

***Trioxys pallidus* (Haliday, 1833)**

General distribution: Palaearctic, Nearctic and Oriental.

Distribution in Iran: Mazandaran (Babae *et al.* 2000; Starý *et al.* 2000), Qazvin (Mohammadbeigi 2000; Starý *et al.* 2000), Tehran (Starý *et al.* 2000; Rakhshani *et al.* 2004; Talebi *et al.* 2009), Alborz, Golestan (Talebi *et al.* 2009), Isfahan, Kohgiluyeh & Boyer-Ahmad (Talebi *et al.* 2009; Barahoei *et al.* 2013), Kermanshah (Nazari *et al.* 2012), North Khorasan (Rakhshani *et al.* 2012b), Kerman (Barahoei *et al.* 2012, 2013), Fars (Taheri and Rakhshani 2013; Barahoei *et al.* 2013).

Hosts: *Chromaphis juglandicola* (Kaltenbach) (Starý 1979; Mohammadbeigi 2000; Starý *et al.* 2000; Rakhshani *et al.* 2004, 2008c, 2012b; Talebi *et al.* 2009; Taheri and Rakhshani 2013; Nazari *et al.* 2012; Barahoei *et al.* 2012, 2013), *Hoplocallis pictus* (Ferrari) (Rakhshani *et al.* 2008c), *Pterocallis alni* (DeGeer) (Hem.: Aphididae) (Babae *et al.* 2000; Starý *et al.* 2000).

***Trioxys pannonicus* Starý, 1960**

General distribution: Palaearctic and Oriental. Distribution in Iran: Kermanshah (Starý 1979; Starý *et al.* 2000), Guilan (Talebi *et al.* 2009), Sistan & Baluchestan (Barahoei *et al.* 2014).

Hosts: *Macrosiphoniella tuberculata* (Nevsky) (Starý 1979; Starý *et al.* 2000; Rakhshani *et al.* 2011), *Macrosiphoniella* sp. (Rakhshani *et al.* 2008c; Talebi *et al.* 2009), *Titanosiphon neoartemisiae* (Hem.: Aphididae) (Barahoei *et al.* 2014).

***Trioxys pappi* Takada, 1979**

General distribution: Mongolia and Iran.

Distribution in Iran: No specific locality cited (Davidian 2005).

Remarks: *Trioxys pappi* has been reported as *Trioxys persicus* Davidian, 2005, but the re-examination of type specimen indicated that this is *Trioxys pappi* Takada, 1979.

***Trioxys tanaceticola* Starý, 1971**

General distribution: Iran, France and Kazakhstan.

Distribution in Iran: Mazandaran (Starý 1979; Starý *et al.* 2000), Guilan (Talebi *et al.* 2009).

Hosts: *Coloradoa heinzei* Börner (Starý 1979; Starý *et al.* 2000), *Coloradoa absinthii* (Lichtenstein) (Talebi *et al.* 2009), *Coloradoa* sp. (Barahoei *et al.* 2014), *Titanosiphon neoartemisiae* Nevsky (Hem.: Aphididae) (Rakhshani *et al.* 2008c; Talebi *et al.* 2009).

**Tribe Ephedrini Mackauer, 1961**

***Ephedrus cerasicola* Starý, 1962**

General distribution: Palaearctic, Nearctic and Oceanic.

Distribution in Iran: Guilan (Mokhtari *et al.* 2000; Starý *et al.* 2000; Rakhshani 2012), Kordestan, Khorasan Razavi (Rakhshani 2012), Isfahan (Rakhshani 2012; Barahoei *et al.* 2013).

Hosts: *Dysaphis plantaginea* (Passerini) (Rakhshani 2012; Barahoei *et al.* 2013), *Myzus cerasi* (F.) (Rakhshani 2012), *Myzus persicae* (Sulzer) (Rakhshani 2012), *Phorodon*



*humuli* (Schrank) (Mokhtari *et al.* 2000; Starý *et al.* 2000), *Rhopalosiphum nymphaeae* (L.) (Hem.: Aphididae) (Mokhtari *et al.* 2000; Starý *et al.* 2000).

***Ephedrus chaitophori* Gårdenfors, 1986**

General distribution: Palaearctic and Nearctic.  
Distribution in Iran: Tehran (Rakhshani *et al.* 2007b).

Host: *Chaitophorus populeti* (Panzer) (Hem.: Aphididae) (Rakhshani *et al.* 2007b).

***Ephedrus helleni* Mackauer, 1968**

General distribution: Palaearctic and Oriental.

Distribution in Iran: Tehran (Starý 1979; Starý *et al.* 2000; Rakhshani *et al.* 2007b), Alborz (Talebi *et al.* 2009).

Hosts: *Cavariella aquatica* (Gillette and Bragg) (Starý 1979; Starý *et al.* 2000; Rakhshani *et al.* 2007b; Talebi *et al.* 2009), *Hayhurstia atriplicis* (L.) (Hem.: Aphididae) (Barahoei *et al.* 2014).

***Ephedrus niger* Gautier, Bonnamour & Gaumont, 1929**

General distribution: Palaearctic and Oriental.  
Distribution in Iran: Mazandaran (Starý 1979; Starý *et al.* 2000), Tehran (Starý 1979; Starý *et al.* 2000; Talebi *et al.* 2009), North Khorasan (Starý 1979; Starý *et al.* 2000; Rakhshani *et al.* 2012b), Guilan (Yaghubi 1997; Starý *et al.* 2000; Talebi *et al.* 2009), Isfahan (Talebi *et al.* 2009; Barahoei *et al.* 2013), Kermanshah (Nazari *et al.* 2012), Kerman (Barahoei *et al.* 2012, 2013), Fars (Taheri and Rakhshani 2013).

Hosts: *Macrosiphoniella abrotani* (Walker) (Starý *et al.* 2000; Rakhshani *et al.* 2011), *Macrosiphoniella sanborni* (Gillette) (Rakhshani *et al.* 2011; Nazari *et al.* 2012), *Macrosiphoniella* sp. (Starý 1979; Yaghubi 1997; Starý *et al.* 2000; Rakhshani *et al.* 2011; Barahoei *et al.* 2013), *Uroleucon cichorii* (Koch) (Yaghubi 1997; Starý *et al.* 2000; Barahoei *et al.* 2012, 2013), *Uroleucon acroptilidis* Kadyrbekov, Renxin and Shao, *Uroleucon bielawskii* (Szelegiewicz), *Uroleucon cichorii* (Koch) (Barahoei *et al.*

2013), *Uroleucon compositae* (Theobald) (Nazari *et al.* 2012; Barahoei *et al.* 2013), *Uroleucon erigeronense* (Thomas) (Starý *et al.* 2000; Talebi *et al.* 2009; Nazari *et al.* 2012), *Uroleucon jaceae* (L.) (Starý *et al.* 2000; Talebi *et al.* 2009; Rakhshani *et al.* 2012b; Nazari *et al.* 2012; Barahoei *et al.* 2012, 2013), *Uroleucon sonchi* (L.) (Talebi *et al.* 2009; Taheri and Rakhshani 2013; Rakhshani *et al.* 2012b; Nazari *et al.* 2012; Barahoei *et al.* 2012, 2013), *Uroleucon* sp. (Hem.: Aphididae) (Starý 1979; Starý *et al.* 2000; Barahoei *et al.* 2012, 2013).

***Ephedrus persicae* Froggatt, 1904**

General distribution: Afrotropical, Australasian, Palaearctic, Nearctic, Neotropical and Oriental.

Distribution in Iran: Tehran (Mackauer 1963; Starý 1979; Starý *et al.* 2000; Rakhshani *et al.* 2005a; Talebi *et al.* 2009; Rakhshani 2012), Alborz (Starý 1979; Starý *et al.* 2000; Rakhshani 2012), Fars (Starý 1979; Starý *et al.* 2000; Rakhshani 2012; Taheri and Rakhshani 2013; Barahoei *et al.* 2013), Sistan & Baluchestan (Bandani 1992; Starý *et al.* 2000; Rakhshani *et al.* 2005a, 2006a; Rakhshani *et al.* 2008b; Talebi *et al.* 2009), North Khorasan (Malkeshi 1997; Starý *et al.* 2000; Rakhshani 2012; Rakhshani *et al.* 2012b), Guilan (Starý *et al.* 2000), Markazi, Qom (Rakhshani *et al.* 2008b), Kermanshah (Rakhshani *et al.* 2008b; Rakhshani 2012; Nazari *et al.* 2012), Khuzestan (Mossadegh *et al.* 2011), Khorasan Razavi (Jafari-Ahmadabadi *et al.* 2011; Rakhshani 2012; Jafari-Ahmadabadi and Modarres 2012), Kordestan, Qazvin (Rakhshani 2012), Isfahan (Rakhshani 2012; Barahoei *et al.* 2013), Kerman (Barahoei *et al.* 2012, 2013).

Hosts: *Aphis affinis* del Guercio (Talebi *et al.* 2009; Taheri and Rakhshani 2013; Barahoei *et al.* 2013), *Aphis craccivora* Koch (Starý *et al.* 2000; Rakhshani *et al.* 2005a, 2006a; Žikić *et al.* 2009; Nazari *et al.* 2012; Barahoei *et al.* 2012, 2013), *Aphis fabae* Scopoli (Starý 1979; Žikić *et al.* 2009; Taheri and Rakhshani

2013; Barahoei *et al.* 2013), *Aphis gossypii* Glover (Barahoei *et al.* 2013), *Aphis nerii* Boyer de Fonscolombe (Talebi *et al.* 2009), *Aphis plantaginis* Goeze (Barahoei *et al.* 2013), *Aphis pomi* DeGeer (Malkeshi 1997; Starý *et al.* 2000), *Aphis punicae* Passerini (Starý *et al.* 2000), *Brachycaudus amygdalinus* (Schouteden) (Talebi *et al.* 2009; Žikić *et al.* 2009; Jafari-Ahmadabadi *et al.* 2011; Jafari-Ahmadabadi and Modarres 2012; Rakhshani 2012; Nazari *et al.* 2012; Rakhshani *et al.* 2012b), *Brachycaudus cardui* (L.) (Žikić *et al.* 2009), *Brachycaudus helichrysi* (Kaltenbach) (Starý 1979; Starý *et al.* 2000; Žikić *et al.* 2009; Rakhshani 2012; Nazari *et al.* 2012; Barahoei *et al.* 2013), *Brachyunguis tamaricis* (Lichtenstein) (Starý 1979; Starý *et al.* 2000), *Diuraphis noxia* (Kurdjumov) (Bandani 1992; Starý *et al.* 2000), *Dysaphis crataegi* (Kaltenbach) (Starý *et al.* 2000), *Dysaphis devecta* (Walker) (Žikić *et al.* 2009), *Dysaphis foeniculus* Theobald (Talebi *et al.* 2009), *Dysaphis plantaginea* (Passerini) (Malkeshi 1997; Starý *et al.* 2000; Rakhshani 2012; Nazari *et al.* 2012; Barahoei *et al.* 2013), *Dysaphis pyri* (Boyer de Fonscolombe) (Mackauer 1963; Malkeshi 1997; Starý *et al.* 2000; Žikić *et al.* 2009; Rakhshani 2012), *Dysaphis reaumuri* (Mordvilko) (Rakhshani 2012; Barahoei *et al.* 2013), *Hayhurstia atriplicis* (L.) (Barahoei *et al.* 2013), *Hyadaphis coriandri* Das (Talebi *et al.* 2009), *Hyalopterus amygdali* (Blanchard) (Rakhshani 2012; Jafari-Ahmadabadi *et al.* 2011; Jafari-Ahmadabadi and Modarres 2012; Barahoei *et al.* 2013), *Hyadaphis coriandri* Das on *Coriandrum* sp., Iran, Zabol, 04-I-2003, leg. E. Rakhshani; *Metopolophium dirhodum* (Walker) (Bandani 1992; Starý *et al.* 2000; Rakhshani *et al.* 2008b), *Myzus cerasi* (F.) (Žikić *et al.* 2009; Rakhshani 2012), *Myzus persicae* (Sulzer) (Talebi *et al.* 2009; Žikić *et al.* 2009; Rakhshani 2012; Nazari *et al.* 2012; Barahoei *et al.* 2013), *Phorodon humuli* (Schrank) (Rakhshani 2012; Barahoei *et al.* 2013), *Rhopalosiphum maidis* (Fitch) (Starý

1979; Bandani 1992; Starý *et al.* 2000; Mossadegh *et al.* 2011; Barahoei *et al.* 2012, 2013), *Rhopalosiphum padi* (L.) (Starý 1979; Bandani 1992; Starý *et al.* 2000; Rakhshani *et al.* 2008b), *Schizaphis graminum* (Rondani) (Bandani 1992; Starý *et al.* 2000; Žikić *et al.* 2009; Rakhshani *et al.* 2008b, 2012b), *Sipha maydis* Passerini (Bandani 1992; Starý *et al.* 2000), *Sitobion avenae* (F.) (Bandani 1992; Starý *et al.* 2000; Barahoei *et al.* 2013), *Toxoptera aurantii* Boyer de Fonscolombe (Hem.: Aphididae) (Mackauer, 1963).

#### ***Ephedrus plagiator* (Nees, 1811)**

General distribution: Australasian, Palaearctic, Neotropical, Oceanic and Oriental.

Distribution in Iran: East Azarbaijan (Starý 1979; Starý *et al.* 2000), Golestan (Darvish-Mojeni and Bayat-Asadi 1995; Starý *et al.* 2000), Guilan (Yaghubi 1997; Mokhtari *et al.* 2000; Starý *et al.* 2000), Tehran (Rakhshani *et al.* 2008b), Isfahan (Rakhshani *et al.* 2008b; Barahoei *et al.* 2013), Khuzestan (Rakhshani *et al.* 2008b; Nazari *et al.* 2012), Alborz, Khorasan Razavi (Rakhshani 2012), Sistan & Baluchestan (Barahoei *et al.* 2014).

Hosts: *Brachycaudus cardui* (L.) (Yaghubi 1997; Starý *et al.* 2000), *Brachycaudus helichrysi* (Kaltenbach) (Rakhshani 2012), *Dysaphis crataegi* (Kaltenbach) (Starý *et al.* 2000), *Dysaphis pyri* (Boyer de Fonscolombe) (Rakhshani 2012), *Dysaphis* sp. (Starý 1979), *Myzus cerasi* (F.) (Mokhtari *et al.* 2000; Starý *et al.* 2000), *Rhopalosiphum padi* (L.) (Rakhshani *et al.* 2008b; Barahoei *et al.* 2013), *Schizaphis graminum* (Rondani) (Rakhshani *et al.* 2008b; Barahoei *et al.* 2014), *Sitobion avenae* (F.) (Hem.: Aphididae) (Darvish-Mojeni and Bayat-Asadi 1995; Starý *et al.* 2000; Rakhshani *et al.* 2008b; Nazari *et al.* 2012).

#### **Tribe Praini Mackauer, 1961**

##### ***Areopraon lepellei* (Waterson, 1926)**

General distribution: Palaearctic and Oriental.

Distribution in Iran: North Khorasan (Kazemzadeh *et al.* 2009; Rakhshani *et al.* 2012b).

Host: *Eriosoma lanuginosum* (Hartig) (Hem.: Aphididae) (Kazemzadeh *et al.* 2009; Rakhshani *et al.* 2012b).

***Praon abjectum* (Haliday, 1833)**

General distribution: Palaearctic, Nearctic and Oriental.

Distribution in Iran: Tehran (Rakhshani *et al.* 2007a; Rakhshani 2012).

Host: *Brachycaudus cardui* (L.) (Hem.: Aphididae) (Rakhshani *et al.* 2007a; Rakhshani 2012).

***Praon absinthii* (Haliday, 1833)**

General distribution: Palaearctic and Oriental.

Distribution in Iran: Guilan (Starý 1979; Starý *et al.* 2000), Tehran (Rakhshani *et al.* 2007a), Zanjan (Rakhshani *et al.* 2007a; Talebi *et al.* 2009), Kerman (Barahoei *et al.* 2010, 2012, 2013).

Hosts: *Macrosiphoniella absinthii* (L.) (Starý 1979; Starý *et al.* 2000; Rakhshani *et al.* 2011), *Macrosiphoniella oblonga* (Mordvilko) (Rakhshani *et al.* 2007a, 2011; Talebi *et al.* 2009), *Macrosiphoniella sanborni* (Gillette) (Rakhshani *et al.* 2007a, 2011).

***Praon barbatum* Mackauer, 1967**

General distribution: Palaearctic and Oriental.

Distribution in Iran: Alborz (Starý 1979; Starý *et al.* 2000), Ardabil (Gonzalez 1978; Starý and Gonzalez 1978; Starý 1979; Starý *et al.* 2000), Tehran (Rakhshani *et al.* 2007a), Kermanshah (Nazari *et al.* 2012), Fars (Taheri and Rakhshani 2013), Isfahan (Barahoei *et al.* 2013).

Hosts: *Acyrtosiphon pisum* (Harris) (Gonzalez 1978; Starý and Gonzalez 1978; Starý, 1979; Starý *et al.* 2000; Rakhshani *et al.* 2007a; Nazari *et al.* 2012; Taheri and Rakhshani 2013; Barahoei *et al.* 2013), *Nearctaphis bakeri* (Cowen) (Hem.: Aphididae) (Barahoei *et al.* 2013).

***Praon bicolor* Mackaur, 1959**

General distribution: Palaearctic.

Distribution in Iran: Alborz (Farahani *et al.* 2015b).

***Praon exsoletum* (Nees, 1811)**

General distribution: Afrotropical, Palaearctic, Nearctic and Neotropical.

Distribution in Iran: Tehran (Monajemi and Esmaili 1981; Rasulian 1985, 1989; Starý *et al.* 2000; Rakhshani *et al.* 2006a; Rakhshani *et al.* 2007a), Qazvin, Semnan (Rakhshani *et al.* 2006a), Alborz, Sistan & Baluchestan, Zanjan (Rakhshani *et al.* 2006aa; Rakhshani *et al.* 2007a), Hamadan, Kordestan (Rakhshani *et al.* 2006a; Rakhshani *et al.* 2007a; Nazari *et al.* 2012), Kermanshah (Rakhshani *et al.* 2006a; Nazari *et al.* 2012), North Khorasan (Rakhshani *et al.* 2012b), Isfahan (Barahoei *et al.* 2013).

Hosts: *Therioaphis riehmii* (Börner) (Starý *et al.* 2000), *Therioaphis trifolii* (Hem.: Aphididae) (Monell) (Farahbakhsh 1961; Starý 1979; Monajemi and Esmaili 1981; Rasulian 1985, 1989; Starý *et al.* 2000; Rakhshani *et al.* 2006a, 2007a, 2012b; Nazari *et al.* 2012; Barahoei *et al.* 2013).

***Praon flavinode* (Haliday, 1833)**

General distribution: Palaearctic and Oriental.

Distribution in Iran: Kerman (Barahoei *et al.* 2010, 2012, 2013).

Hosts: *Tinocallis nevskyi* Remaudiere, Quednau and Heie (Hem.: Aphididae) (Barahoei *et al.* 2010, 2012, 2013).

Remarks: This species has been synonymized with *P. absinthii* (Hodgson 1917; Yu *et al.* 2012), but we believe that these two species are completely different and valid species.

***Praon gallicum* Starý, 1971**

General distribution: Palaearctic, Nearctic and Neotropical.

Distribution in Iran: Kermanshah (Bagheri-Matin *et al.* 2010; Nazari *et al.* 2012).

Host: *Rhopalosiphum padi* (L.) (Hem.: Aphididae) (Bagheri-Matin *et al.* 2010; Nazari *et al.* 2012).

***Praon necans* Mackauer, 1959**

General distribution: Palaearctic and Oriental.

Distribution in Iran: Khuzestan (Mossadegh *et al.* 2011), Kermanshah (Nazari *et al.* 2012).

Hosts: *Aphis craccivora* Koch (Nazari *et al.* 2012), *Aphis gossypii* Glover, *Aphis nerii* Boyer de Fonscolombe (Mossadegh *et al.* 2011), *Aphis punicae* Passerini, *Macrosiphoniella sanborni* (Gillette) (Nazari *et al.* 2012), *Myzus persicae* (Sulzer) (Mossadegh *et al.* 2011), *Rhopalosiphum nymphaeae* (L.) (Nazari *et al.* 2012), *Rhopalosiphum padi* (L.) (Mossadegh *et al.* 2011; Nazari *et al.* 2012), *Sitobion avenae* (F.) (Hem.: Aphididae) (Mossadegh *et al.* 2011).

***Praon orpheusi* Kavallieratos, Athanassiou & Tomanovic, 2003**

General distribution: Palaearctic.

Distribution in Iran: Tehran (Rakhshani *et al.* 2007a; Talebi *et al.* 2009).

Host: *Hyperomyzus lactucae* (L.) (Hem.: Aphididae) (Rakhshani *et al.* 2007a; Talebi *et al.* 2009).

***Praon pubescens* Starý, 1961**

General distribution: Palaearctic and Oriental.

Distribution in Iran: Khuzestan (Nazari *et al.* 2012).

Host: *Nasonovia ribisnigri* (Mosley) (Hem.: Aphididae) (Nazari *et al.* 2012).

***Praon rosaecola* Starý, 1961**

General distribution: Palaearctic.

Distribution in Iran: Guilan (Rakhshani *et al.* 2007a), Tehran (Rakhshani *et al.* 2007a), Alborz (Talebi *et al.* 2009), Kerman (Barahoei *et al.* 2010, 2012; Barahoei *et al.* 2013), North Khorasan (Rakhshani *et al.* 2012b), Isfahan (Barahoei *et al.* 2013).

Hosts: *Macrosiphum rosae* (L.) (Rakhshani *et al.* 2007a, 2012b; Talebi *et al.* 2009; Barahoei *et al.* 2010, 2012, 2013), *Wahlgreniella neroata* (Gillette) (Hem.: Aphididae) (Barahoei *et al.* 2013).

***Praon unitum* Mescheloff & Rosen, 1989**

General distribution: Palaearctic.

Distribution in Iran: Kerman (Barahoei *et al.* 2010, 2012, 2013).

Hosts: *Macrosiphoniella sanborni* (Gillette) (Rakhshani *et al.* 2011), *Uroleucon acroptilidis* Kadyrbekov, Renxin and Shao (Barahoei *et al.* 2010, 2012, 2013), *Uroleucon jaceae* (L.),

*Uroleucon sonchi* (L.) (Hem.: Aphididae) (Barahoei *et al.* 2013).

***Praon volucre* (Haliday, 1833)**

General distribution: Palaearctic, Neotropical and Oriental.

Distribution in Iran: Alborz (Starý 1979; Starý *et al.* 2000; Rakhshani *et al.* 2007a; Talebi *et al.* 2009; Rakhshani 2012), Tehran (Starý 1979; Starý *et al.* 2000; Rakhshani *et al.* 2005a; Rakhshani *et al.* 2006a; Rakhshani *et al.* 2007a, 2008b; Talebi *et al.* 2009; Rakhshani 2012), West Azarbaijan (Starý *et al.* 2000), Zanzan (Rakhshani *et al.* 2006a), Sistan & Baluchestan (Rakhshani *et al.* 2006a; Rakhshani *et al.* 2007a, 2008b; Talebi *et al.* 2009; Rakhshani 2012), Qazvin (Rakhshani *et al.* 2007a), Golestan (Rakhshani *et al.* 2007a, 2008b), Hamadan (Rakhshani *et al.* 2007a, 2008b; Rakhshani 2012; Nazari *et al.* 2012), Fars (Rakhshani *et al.* 2007a, 2008b; Rakhshani 2012; Taheri and Rakhshani 2013; Barahoei *et al.* 2013), Isfahan (Rakhshani *et al.* 2007a, 2008b; Talebi *et al.* 2009; Barahoei *et al.* 2013), Kordestan (Rakhshani *et al.* 2007a, 2008b; Rakhshani 2012), Markazi, Qom (Rakhshani *et al.* 2008b), Kermanshah (Rakhshani *et al.* 2008b; Talebi *et al.* 2009; Rakhshani 2012; Nazari *et al.* 2012), Khorasan Razavi (Rakhshani *et al.* 2008b; Jafari-Ahmadabadi *et al.* 2011; Rakhshani 2012; Jafari-Ahmadabadi and Modarres 2012), North Khorasan (Rakhshani 2012; Rakhshani *et al.* 2012b), Khuzestan (Rakhshani *et al.* 2008b; Nazari *et al.* 2012), Kerman (Barahoei *et al.* 2010, 2012, 2013).

Hosts: *Acyrtosiphon lactucae* (Passerini) (Rakhshani *et al.* 2007a), *Acyrtosiphon pisum* (Harris) (Rakhshani *et al.* 2006a, 2007a), *Amphorophora catharinae* (Nevsky) (Rakhshani *et al.* 2012b; Barahoei *et al.* 2010, 2012, 2013), *Aphis affinis* del Guercio (Rakhshani *et al.* 2012b), *Aphis craccivora* Koch (Rakhshani *et al.* 2005a, 2006a, 2007a, 2012b; Barahoei *et al.* 2010, 2012, 2013), *Aphis dlabolai* Holman (Barahoei *et al.* 2013),

*Aphis fabae* Scopolii (Starý, 1979; Starý et al. 2000; Rakhshani et al. 2007a; Barahoei et al. 2013; Taheri and Rakhshani, 2013; Nazari et al. 2012), *Aphis gossypii* Glover (Barahoei et al. 2013), *Aphis pomi* de Geer (Rakhshani 2012), *Aphis solanella* Theobald (Rakhshani et al. 2007a; Talebi et al. 2009; Barahoei et al. 2010, 2012, 2013), *Aphis urticae* Gmelin (Rakhshani et al. 2012b), *Brachycaudus amygdalinus* (Schouteden) (Rakhshani et al. 2007a; Talebi et al. 2009; Rakhshani 2012), *Brachycaudus cardui* (L.) (Rakhshani 2012), *Brachycaudus helichrysi* (Kaltenbach) (Rakhshani et al. 2007a; Talebi et al. 2009; Jafari-Ahmadabadi et al. 2011; Jafari-Ahmadabadi and Modarres 2012; Rakhshani 2012; Barahoei et al. 2013), *Brachycaudus persicae* (Passerini) (Rakhshani 2012), *Diuraphis noxia* (Kurdjumov) (Starý et al. 2000; Rakhshani et al. 2007a, 2008b; Barahoei et al. 2013), *Dysaphis pyri* (Boyer de Fonscolombe) (Rakhshani 2012), *Hyalopterus amygdali* (Blanchard) (Rakhshani et al. 2007a; Taheri and Rakhshani 2013; Rakhshani 2012; Nazari et al. 2012), *Hyalopterus pruni* (Geoffrey) (Rakhshani et al. 2007a; Rakhshani 2012; Jafari-Ahmadabadi et al. 2011; Jafari-Ahmadabadi and Modarres 2012; Barahoei et al. 2013), *Hyperomyzus lactucae* (L.) (Rakhshani et al. 2007a; Talebi et al. 2009), *Macrosiphum rosae* (L.) (Rakhshani et al. 2007a; Talebi et al. 2009; Barahoei et al. 2010, 2012, 2013; Nazari et al. 2012), *Macrosiphum* sp. (Starý et al. 2000), *Macrosiphoniella* sp. (Rakhshani et al. 2011), *Metopolophium dirhodum* (Walker) (Rakhshani et al. 2008b; Taheri and Rakhshani 2013; Barahoei et al. 2013), *Myzus beybienkoi* (Narzykulov) (Starý et al. 2000), *Myzus persicae* (Sulzer) (Starý 1979; Starý et al. 2000; Rakhshani et al. 2007a; Rakhshani 2012; Jafari-Ahmadabadi et al. 2011; Jafari-Ahmadabadi and Modarres 2012; Nazari et al. 2012; Barahoei et al. 2013),

*Phorodon humuli* (Schrank) (Rakhshani et al. 2007a), *Rhopalosiphum maidis* Fitch (Rakhshani et al. 2007a, 2008b; Nazari et al. 2012; Barahoei et al. 2010, 2012, 2013), *Rhopalosiphum padi* (L.) (Rakhshani et al. 2007a, 2008b; Barahoei et al. 2013), *Schizaphis graminum* (Rondani) (Rakhshani et al. 2007a, 2008b; Nazari et al. 2012; Barahoei et al. 2013), *Sitobion avenae* (F.) (Rakhshani et al. 2007a, 2008b; Barahoei et al. 2013), *Uroleucon cichorii* (Koch) (Rakhshani et al. 2007a), *Uroleucon compositae* (Theobald) (Rakhshani et al. 2007a; Barahoei et al. 2013), *Uroleucon jaceae* (L.) (Rakhshani et al. 2007a), *Uroleucon sonchi* (L.) (Hem.: Aphididae) (Rakhshani et al. 2007a, 2012b; Talebi et al. 2009; Nazari et al. 2012; Barahoei et al. 2010, 2012, 2013).

#### ***Praon yomenae* Takada, 1968**

General distribution: Palaearctic and Oriental. Distribution in Iran: Tehran, Zanzan (Rakhshani et al. 2007a), Alborz (Rakhshani et al. 2007a; Talebi et al. 2009), Isfahan (Rakhshani et al. 2007a; Talebi et al. 2009; Barahoei et al. 2013), Kerman (Barahoei et al. 2010, 2012, 2013), Hamadan (Nazari et al. 2012), North Khorasan (Rakhshani et al. 2012b).

Hosts: *Uroleucon acroptilidis* Kadyrbekov, Renxin and Shao (Barahoei et al. 2010, 2012, 2013), *Uroleucon carthami* (Hille Ris Lambers) (Barahoei et al. 2013), *Uroleucon cichorii* (Koch) (Barahoei et al. 2010, 2012, 2013), *Uroleucon chondrillae* (Nevsky) (Rakhshani et al. 2007a; Nazari et al. 2012), *Uroleucon compositae* (Theobald) (Rakhshani et al. 2007a), *Uroleucon jaceae* (L.) (Rakhshani et al. 2007a; Barahoei et al. 2010, 2012, 2013), *Uroleucon sonchi* (L.) (Rakhshani et al. 2007a, 2012b; Talebi et al. 2009; Barahoei et al. 2010, 2012, 2013), *Uroleucon tortuosissimae* Rezwani and Lampel (Hem.: Aphididae) (Barahoei et al. 2013).

Remarks: Evidences from association of *Praon dorsale* (Haliday, 1833) is referring to *Praon yomenae*, because of *Praon dorsale* is specific parasitoid on *Coryllobium avellana* L.

**Subfamily Blacinae Förster, 1862****Tribe Blacini Förster, 1862*****Blacus (Blacus) bovistae* Haeselbarth, 1973**

General distribution: Palaearctic.

Distribution in Iran: Kermanshah (Ghahari and Fischer 2012).

***Blacus (Blacus) errans* (Nees, 1811)**

General distribution: Palaearctic.

Distribution in Iran: Lorestan (Ghahari *et al.* 2012a).

***Blacus (Blacus) exilis* (Nees, 1811)**

General distribution: Palaearctic and Nearctic.

Distribution in Iran: Kermanshah (Ghahari and Fischer 2012), Alborz, Mazandaran (Farahani *et al.* 2013d).

***Blacus (Blacus) filicornis* Haeselbarth, 1973**

General distribution: Palaearctic.

Distribution in Iran: Guilan (Ghahari *et al.* 2012c).

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

General distribution: Palaearctic.

Distribution in Iran: Lorestan (Ghahari *et al.* 2012a), Semnan (Naderian *et al.* 2012).

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

General distribution: Palaearctic, Nearctic and Oriental.

Distribution in Iran: Kermanshah (Ghahari and Fischer 2012), Guilan (Farahani *et al.* 2013d).

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

General distribution: Palaearctic.

Distribution in Iran: Guilan (Ghahari *et al.* 2012c; Farahani *et al.* 2013d).

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

General distribution: Palaearctic and Nearctic.

Distribution in Iran: Lorestan (Ghahari *et al.* 2012a), West Azarbaijan (Rastegar *et al.* 2012).

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

General distribution: Palaearctic.

Distribution in Iran: Kermanshah (Ghahari and Fischer 2012).

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

General distribution: Palaearctic and Nearctic.

Distribution in Iran: Guilan (Ghahari *et al.* 2012c; Farahani *et al.* 2013d), Qazvin, Mazandaran (Farahani *et al.* 2013d).

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

General distribution: Palaearctic.

Distribution in Iran: Lorestan (Ghahari *et al.* 2012a).

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

General distribution: Palaearctic.

Distribution in Iran: Kermanshah (Ghahari and Fischer 2012).

***Blacus (Ganychorus) ruficornis* (Nees, 1811)**

General distribution: Palaearctic, Nearctic, Neotropical and Oriental.

Distribution in Iran: Alborz, Guilan, Qazvin, Mazandaran (Farahani *et al.* 2013d).

***Blacus (Hysterobolus) nixoni* Haeselbarth, 1973**

General distribution: Palaearctic.

Distribution in Iran: Guilan, Mazandaran (Farahani *et al.* 2013d).

***Blacus (Tarpheion) achterbergi* Haeselbarth, 1976**

General distribution: Palaearctic.

Distribution in Iran: Mazandaran (Farahani *et al.* 2013d).

**Subfamily Brachistinae Förster, 1862****Tribe Brachistini Förster, 1862*****Eubazus (Brachistes) minutus* (Ratzeburg, 1848)**

General distribution: Palaearctic.

Distribution in Iran: East Azarbaijan (Gadallah and Ghahari 2013a).

***Eubazus (Brachistes) tibialis* (Haliday, 1835)**

General distribution: Palaearctic.

Distribution in Iran: Khorasan Razavi (Samin *et al.* 2011), Semnan (Ghahari and Gadallah 2015; Samin 2015).

***Foersteria longicauda* van Achterberg, 1990**

General distribution: Iran and Turkey.

Distribution in Iran: West Azarbaijan (Ghahari and Fischer 2011a), Kuhgiloyeh & Boyerahmad (Samin *et al.* 2015b).

***Schizoprymnus angustatus* (Herrich-Schäffer, 1838)**

General distribution: Palaearctic.

Distribution in Iran: Golestan (Samin *et al.* 2011), Semnan (Samin 2015).

***Schizoprymnus elongatus* (Szépligeti, 1898)**

General distribution: Palaearctic.

Distribution in Iran: Ardabil (Ghahari and Fischer 2011a), Golestan (Samin *et al.* 2015).

***Schizoprymnus excisus* (Snoflák, 1953)**

General distribution: Palaearctic.

Distribution in Iran: Kerman (Ghahari *et al.* 2010b), Guilan (Ghahari and Fischer 2011b), Golestan (Samin *et al.* 2015).

***Schizoprymnus nigripes* (Thomson, 1892)**

General distribution: Palaearctic.

Distribution in Iran: Sistan & Baluchestan (Samin *et al.* 2011), Golestan (Kalaleh (Samin 2015).

***Schizoprymnus obscurus* (Nees, 1816)**

General distribution: Palaearctic.

Distribution in Iran: No specific locality cited (Telenga 1941; Hellén 1958), Isfahan (Ghahari *et al.* 2011c), Guilan (Ghahari *et al.* 2012c).

***Schizoprymnus pallidipennis* (Herrich-Schäffer, 1838)**

General distribution: Palaearctic and Oriental.

Distribution in Iran: Mazandaran (Ghahari and Fischer 2011b; Sakenin *et al.* 2012).

***Schizoprymnus parvus* (Thomson, 1892)**

General distribution: Palaearctic.

Distribution in Iran: Isfahan (Ghahari *et al.* 2011c), Khorasan Razavi (Samin *et al.* 2011), Ardabil, West Azarbaijan (Rastegar *et al.* 2012), Charmahal & Bakhtiari (Samin *et al.* 2015b).

***Schizoprymnus pullatus* (Dahlbom, 1833)**

General distribution: Palaearctic.

Distribution in Iran: No specific locality cited (Tobias 1986, reported as *Schizoprymnus globosus*).

***Schizoprymnus terebralis* (Snoflák, 1953)**

General distribution: Palaearctic.

Distribution in Iran: East Azarbaijan (Sakenin *et al.* 2009a), Isfahan (Ghahari *et al.* 2010b), Fars (Samin *et al.* 2015b).

***Triaspis complanellae* (Hartig, 1847)**

General distribution: Palaearctic.

Distribution in Iran: Guilan (Ghahari *et al.* 2012c, reported as *Triaspis flavipes*).

***Triaspis floricola* (Wesmael, 1835)**

General distribution: Palaearctic.

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

***Triaspis lugubris* Snoflák, 1953**

General distribution: Palaearctic.

Distribution in Iran: Mazandaran (Ghahari and Fischer 2011b; Sakenin *et al.* 2012), Kuhgiloyeh & Boyerahmad (Samin *et al.* 2015b).

***Triaspis obscurella* (Nees, 1816)**

General distribution: Palaearctic.

Distribution in Iran: Isfahan (Ghahari *et al.* 2011c), East Azarbaijan (Rastegar *et al.* 2012).

***Triaspis pallipes* (Nees, 1816)**

General distribution: Palaearctic and Oriental.

Distribution in Iran: Ardabil (Gadallah and Ghahari 2013a).

***Triaspis thoracica* (Curtis, 1860)**

General distribution: Palaearctic and Neotropical.

Distribution in Iran: Mazandaran, Tehran (Shahhosseini and Kamali 1989, reported as *Triaspis thoracicus*).

Host: *Bruchus rufimanus* Boheman (Col.: Chrysomelidae) (Shahhosseini and Kamali 1989).

**Subfamily Braconinae Nees, 1811****Tribe Aphrastobraconini Ashmead, 1900*****Iphiaulax hians* Pérez, 1907**

General distribution: Iran and Oman.

Distribution in Iran: No specific locality cited (Telenga 1936).

***Iphiaulax impeditor* (Kokujev, 1898)**

General distribution: Palaearctic.

Distribution in Iran: No specific locality cited (Fahringer 1926).

***Iphiaulax impostor* (Scopoli, 1763)**

General distribution: Afrotropical, Palaearctic and Oriental.

Distribution in Iran: East Azarbaijan (Ghahari *et al.* 2009a).

***Iphiaulax mactator* (Klug, 1817)**

General distribution: Palaearctic.

Distribution in Iran: No specific locality cited (Tobias 1976, 1986).

***Iphiaulax mirabilis* (Hedwig, 1957)**

General distribution: Iran.

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

***Iphiaulax perezii* (Fahringer, 1926)**

General distribution: Iran and Oman.

Distribution in Iran: No specific locality cited (Telenga 1936).

***Megalommum pistacivora* van Achterberg & Mehrnejad, 2011**

General distribution: Iran.

Distribution in Iran: Kerman (van Achterberg and Mehrnejad 2011).

**Tribe Braconini Nees, 1811*****Atanycolus ivanovi* (Kokujev, 1898)**

General distribution: Palaearctic.

Distribution in Iran: Alborz (Shojai 1968; Zargar *et al.* 2014a, reported as *Atanycolus ivanovi*), Kordestan, Marzaki, Semnan, Tehran (Shojai 1963, 1968; Dastgheyb Beheshti 1980; Davatchi and Shojai 1969; Radjabi 1976, 1991, reported as *Atanycolus sculpturatus* (Thomson, 1892)), Tehran (Zargar *et al.* 2014a, reported as *A. ivanovi*), Fars (Lashkari Bod *et al.* 2011a, reported as *A. sculpturatus*), Ilam (Ghahari *et al.* 2011a, reported as *A. sculpturatus*), Golestan (Ghahari and Fischer 2011c), Guilan, Qazvin (Zargar *et al.* 2014a, reported as *A. ivanovi*).

***Baryproctus zarudnianus* Telenga, 1936**

General distribution: Iran and Palestine.

Distribution in Iran: No specific locality cited (Telenga 1936; Shenefelt 1978).

***Bracon (Asiabracon) quadrimaculatus* Telenga, 1936**

General distribution: Palaearctic.

Distribution in Iran: Hormozgan (Ameri *et al.* 2014c), Mazandaran (Zargar *et al.* 2015).

***Bracon (Bracon) chivensis* Telenga, 1936**

General distribution: Palaearctic.

Distribution in Iran: No specific locality cited (Capek and Hofmann 1997).

***Bracon (Bracon) fulvipes* Nees, 1834**

General distribution: Palaearctic.

Distribution in Iran: East Azarbaijan (Ghahari *et al.* 2009a), Mazandaran (Ghahari *et al.* 2010a; Zargar *et al.* 2015), Guilan (Ghahari and Fischer 2011b), no specific locality cited (Papp 2012), Semnan (Ghahari and Gadallah 2015).

***Bracon (Bracon) gusaricus* Telenga, 1933**

General distribution: Palaearctic.

Distribution in Iran: Lorestan (Ghahari *et al.* 2012a), Hormozgan (Ameri *et al.* 2014c).

***Bracon (Bracon) intercessor* Nees, 1834**

General distribution: Palaearctic.

Distribution in Iran: Khorasan Razavi (Ghahari *et al.* 2009b), Ilam (Ghahari *et al.* 2011a), Tehran (Ghahari *et al.* 2011d; Zargar *et al.* 2015), Semnan (Naderian *et al.* 2012), Lorestan (Ghahari *et al.* 2012a), Hormozgan (Ameri *et al.* 2014c).

Remarks: The subspecies *Bracon (Bracon) intercessor laetus* (Wesmael, 1838) was reported from Iran by Hedwig (1957), Papp (2012) and Zargar *et al.* (2015).

***Bracon (Bracon) kozak* Telenga, 1936**

General distribution: Palaearctic.

Distribution in Iran: Hormozgan (Ameri *et al.* 2014c).

***Bracon (Bracon) lefroyi* (Dudgeon & Gough, 1914)**

General distribution: India, Iran and Egypt.

Distribution in Iran: Fars (Hussain *et al.* 1977).



Host: *Earias insulana* Boisduval (Lep.: Nolidae) (Hussain *et al.* 1977).

***Bracon (Bracon) leptus* Marshall, 1897**

General distribution: Palaearctic.

Distribution in Iran: Guilan (Ghahari *et al.* 2009a; Ghahari *et al.* 2012c), North Khorasan (Ghahari *et al.* 2009d), Qazvin (Ghahari *et al.* 2011b), Golestan (Ghahari and Fischer 2011c), Hormozgan (Ameri *et al.* 2014c).

***Bracon (Bracon) longicollis* (Wesmael, 1838)**

General distribution: Palaearctic and Oriental.

Distribution in Iran: No specific locality cited (Tobias 1976, 1986; Beyarslan *et al.* 2005).

***Bracon (Bracon) luteator* Spinola, 1808**

General distribution: Palaearctic.

Distribution in Iran: Ilam (Gharali 2004, on safflower shoot flies; Lotfalizadeh and Gharali 2014), no specific locality cited (Beyarslan *et al.* 2005), Kermanshah (Ghahari and Fischer 2012), East Azarbaijan, Chaharmahal-e-Bakhtiari (Lotfalizadeh and Gharali 2014, on *Carthamus tinctorius*).

Hosts: Safflower shoot flies (Dip.: Tephritidae) (Gharali 2004; Lotfalizadeh and Gharali 2014), *Urophora* sp. (Dip.: Tephritidae) (Ghahari and Fischer 2012).

***Bracon (Bracon) mariae* Dalla Torre, 1898**

General distribution: Palaearctic.

Distribution in Iran: No specific locality cited (Tobias 1961, 1976), Guilan (Ghahari *et al.* 2012c), Semnan (Ghahari and Gadallah 2015).

***Bracon (Bracon) minutator* (Fabricius, 1798)**

General distribution: Palaearctic.

Distribution in Iran: No specific locality cited (Tobias 1961, 1976; Fallahzadeh and Saghaei 2010), Isfahan (Ghahari *et al.* 2011c, reported as *Bracon (Glabrobracon) minutator*), Kermanshah (Ghahari and Fischer 2012), Hormozgan (Ameri *et al.* 2014c).

Host: *Anthonomus pomorum* (L.) (Col.: Curculionidae) (Ghahari and Fischer 2012).

***Bracon (Bracon) nigratus* (Wesmael, 1838)**

General distribution: Palaearctic.

Distribution in Iran: Lorestan (Ghahari *et al.* 2012a), Hormozgan (Ameri *et al.* 2014c).

Host: *Zygaena achilleae* Esper (Lep.: Zygaenidae) (Ghahari *et al.* 2012a).

***Bracon (Bracon) pectoralis* (Wesmael, 1838)**

General distribution: Nearctic (introduced) and Palaearctic.

Distribution in Iran: Golestan (Ghahari *et al.* 2009d; Ghahari *et al.* 2010a), Isfahan (Ghahari *et al.* 2011c), Ardabil (Ghahari and Fischer 2011b), Hormozgan (Ameri *et al.* 2015), Guilan, Qazvin (Zargar *et al.* 2015).

***Bracon (Bracon) robustus* Hedwig, 1961**

General distribution: Afghanistan and Iran.

Distribution in Iran: Khorasan Razavi (Samin *et al.* 2011), Golestan (Samin *et al.* 2015).

***Bracon (Bracon) scabriusculus* Dalla Torre, 1898**

General distribution: Palaearctic.

Distribution in Iran: No specific locality cited (Telenga 1936).

***Bracon (Bracon) schmidti* Kokujev, 1912**

General distribution: Palaearctic.

Distribution in Iran: No specific locality cited (Telenga 1936; Tobias 1976, 1986; Shenefelt 1978; Papp 2012).

***Bracon (Bracon) subrugosus* Szépligeti, 1901**

General distribution: Palaearctic.

Distribution in Iran: No specific locality cited (Papp 2012), Lorestan (Ghahari *et al.* 2012a, reported as *Bracon subglaber*).

Host: *Ceutorhynchus* sp. (Col.: Curculionidae) (Ghahari *et al.* 2012a).

***Bracon (Bracon) trucidator* Marshall, 1888**

General distribution: Palaearctic.

Distribution in Iran: Kermanshah (Ghahari *et al.* 2010b), Qazvin (Ghahari *et al.* 2011b), Ardabil (Ghahari and Fischer 2011b), Hamadan (Samin 2015).

***Bracon (Bracon) variegator* Spinola, 1808**

General distribution: Nearctic (introduced), Oceanic, Oriental and Palaearctic.

Distribution in Iran: Kermanshah (Ghahari and Fischer 2012), Hormozgan (Ameri *et al.*

2014c), Qazvin (Zargar *et al.* 2015), Semnan (Ghahari and Gadallah 2015).

Host: *Anarsia lineatella* Zeller (Lep.: Gelechiidae) (Ghahari and Fischer 2012).

***Bracon (CyanopteroBracon) illyricus Marshall, 1888***

General distribution: Palaearctic.

Distribution in Iran: Isfahan (Ghahari *et al.* 2011c), Guilan (Ghahari *et al.* 2012c).

Host: *Larinus turbinatus* Gyllenhal (Col.: Curculionidae) (Ghahari *et al.* 2012c).

***Bracon (CyanopteroBracon) sabulosus Szépligeti, 1896***

General distribution: Palaearctic.

Distribution in Iran: No specific locality cited (Telenga 1936; Tobias 1976, 1986), East Azarbaijan (Ghahari *et al.* 2009a), Golestan (Ghahari and Fischer 2011b).

***Bracon (GlabroBracon) abbreviator Nees, 1834***

General distribution: Palaearctic.

Distribution in Iran: No specific locality cited (Tobias 1961, 1976), Qazvin (Ghahari *et al.* 2011b), Semnan (Ghahari and Gadallah 2015).

***Bracon (GlabroBracon) ahngeri Telenga, 1936***

General distribution: Oriental and Palaearctic.

Distribution in Iran: Hormozgan (Ameri *et al.* 2015).

***Bracon (GlabroBracon) angustiventris Tobias, 1957***

General distribution: Palaearctic.

Distribution in Iran: Kermanshah (Ghahari and Fischer 2012).

***Bracon (GlabroBracon) atrator Nees, 1834***

General distribution: Palaearctic.

Distribution in Iran: Guilan (Ghahari *et al.* 2012c), West Azarbaijan (Samin *et al.* 2014), Hormozgan (Ameri *et al.* 2015).

***Bracon (GlabroBracon) chrysostigma Greese, 1928***

General distribution: Palaearctic.

Distribution in Iran: Golestan (Ghahari and Fischer 2011c).

***Bracon (GlabroBracon) delibator Haliday, 1833***

General distribution: Palaearctic.

Distribution in Iran: Ilam (Ghahari *et al.* 2011a), Alborz (Zargar *et al.* 2015), Semnan (Ghahari and Gadallah 2015, reported as *Bracon (PalpiBracon) delibator*).

***Bracon (GlabroBracon) dilatus Papp, 1999***

General distribution: Iran and Iraq.

Distribution in Iran: Mazandaran (Papp 1999).

***Bracon (GlabroBracon) dolichurus Marshall, 1897***

General distribution: Palaearctic.

Distribution in Iran: Kermanshah (Ghahari and Fischer 2012).

***Bracon (GlabroBracon) epitriptus Marshall, 1885***

General distribution: Palaearctic.

Distribution in Iran: Fars (Lashkari Bod *et al.* 2010, 2011a), Khorasan Razavi (Samin *et al.* 2011, reported as *Bracon (OrthoBracon) epitriptus*), Isfahan (Ghahari *et al.* 2011c), East Azarbaijan (Rastegar *et al.* 2012), Hormozgan (Ameri *et al.* 2014c), Mazandaran (Zargar *et al.* 2015), Kuhgiluyeh & Boyerahmad (Samin *et al.* 2015b, reported as *Bracon (OrthoBracon) epitriptus*).

***Bracon (GlabroBracon) helleni Telenga, 1936***

General distribution: Palaearctic.

Distribution in Iran: West Azarbaijan (Ghahari and Fischer 2011a), Golestan (Samin *et al.* 2015).

***Bracon (GlabroBracon) hemiflavus Szépligeti, 1901***

General distribution: Palaearctic.

Distribution in Iran: No specific locality cited (Papp 2008).

***Bracon (GlabroBracon) immutator Nees, 1834***

General distribution: Palaearctic.

Distribution in Iran: Hormozgan (Ameri *et al.* 2014c).

***Bracon (GlabroBracon) kirgisorum Telenga, 1936***

General distribution: Palaearctic.

Distribution in Iran: No specific locality cited (Sakenin *et al.* 2011), Golestan (Ghahari and Fischer 2011b; Sakenin *et al.* 2012).

***Bracon (Glabrobracon) lividus* Telenga, 1936**

General distribution: Palaearctic.

Distribution in Iran: East Azarbaijan (Ghahari and Fischer 2011a), Ardabil (Ghahari and Fischer 2011b), Golestan (Ghahari and Fischer 2011c), Khuzestan (Samin *et al.* 2015b).

***Bracon (Glabrobracon) nigripilosus* Tobias, 1957**

General distribution: Palaearctic.

Distribution in Iran: Kermanshah (Ghahari and Fischer 2012).

***Bracon (Glabrobracon) nigriventris* (Wesmael, 1838)**

General distribution: Palaearctic.

Distribution in Iran: Lorestan (Ghahari *et al.* 2012a).

***Bracon (Glabrobracon) obscurator* Nees, 1811**

General distribution: Palaearctic.

Distribution in Iran: Qazvin (Ghahari *et al.* 2011b), Hormozgan (Ameri *et al.* 2015).

***Bracon (Glabrobracon) parvulus* (Wesmael, 1838)**

General distribution: Oriental and Palaearctic.

Distribution in Iran: Golestan (Ghahari and Fischer 2011c), Mazandaran (Zargar *et al.* 2014b; 2015).

***Bracon (Glabrobracon) picticornis* (Wesmael, 1838)**

General distribution: Oriental and Palaearctic.

Distribution in Iran: No specific locality cited (Papp 2012), Kermanshah (Ghahari and Fischer 2012), Hormozgan (Ameri *et al.* 2015), Mazandaran (Zargar *et al.* 2015).

***Bracon (Glabrobracon) pineti* Thomson, 1892**

General distribution: Palaearctic.

Distribution in Iran: Lorestan (Ghahari *et al.* 2012a).

***Bracon (Glabrobracon) planinotus* Tobias, 1957**

General distribution: Palaearctic.

Distribution in Iran: Kermanshah (Ghahari *et al.* 2010b), Guilan (Ghahari *et al.* 2012c), Golestan (Samin *et al.* 2015).

***Bracon (Glabrobracon) popovi* Telenga, 1936**

General distribution: Palaearctic.

Distribution in Iran: Mazandaran (Ghahari *et al.* 2011d).

***Bracon (Glabrobracon) praetermissus* Marshall, 1885**

General distribution: Palaearctic.

Distribution in Iran: Fars (Lashkari Bod *et al.* 2010, 2011a), Guilan (Ghahari *et al.* 2012c).

Host: *Biorhiza pallida* (Olivier) (Hym.: Cynipidae) (Ghahari *et al.* 2012c).

***Bracon (Glabrobracon) tekkensis* Telenga, 1936**

General distribution: Palaearctic.

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

***Bracon (Glabrobracon) triangularis* Nees, 1834**

General distribution: Palaearctic.

Distribution in Iran: Kermanshah (Ghahari and Fischer 2012, reported as *Bracon (Leucobracon) triangularis*).

***Bracon (Glabrobracon) tschitscherini* Kokujev, 1904**

General distribution: Palaearctic.

Distribution in Iran: West Azarbaijan (Ghahari and Fischer 2011a), Golestan (Ghahari and Fischer 2011b), Kordestan (Samin 2015).

***Bracon (Glabrobracon) variator* Nees, 1811**

General distribution: Palaearctic.

Distribution in Iran: No specific locality cited (Papp 1966, 1967, 2012; Capek and Hofmann 1997; Beyarslan *et al.* 2005), Guilan (Ghahari and Fischer 2011b), Hormozgan (Ameri *et al.* 2014c), West Azarbaijan (Samin *et al.* 2014), Alborz, Qazvin, Tehran (Zargar *et al.* 2015).

Remarks: The subspecies *Bracon (Glabrobracon) variator bipartitus* (Wesmael, 1838) and *B. (Glabrobracon) variator maculiger* (Wesmael, 1838) were also reported from Iran (Capek and Hofmann 1997; Zargar *et al.* 2015; Ghahari *et al.* 2011c; Rastegar *et al.* 2012).

***Bracon (Lucobracon) apricus* Schmiedeknecht, 1897**

General distribution: Palaearctic.

Distribution in Iran: Semnan (Ghahari *et al.* 2011d).

***Bracon (Lucobracon) brevitemporis* Tobias, 1959**

General distribution: Iran, Kazakhstan and Turkey.

Distribution in Iran: West Azarbaijan (Rastegar *et al.* 2012, reported as *Bracon brevitemporalis*), Lorestan (Ghahari *et al.* 2012a, reported as *B. brevitemporalis*).

***Bracon (Lucobracon) erraticus* (Wesmael, 1838)**

General distribution: Afrotropical and Palaearctic.

Distribution in Iran: Fars (Lashkari Bod *et al.* 2011a, reported as *Bracon praetermissus*), no specific locality cited (Papp 2012, reported as *B. erraticus* var. *confinis*), Guilan (Ghahari *et al.* 2012c, reported as *Bracon praetermissus*), Hormozgan (Ameri *et al.* 2014c), Alborz (Zargar *et al.* 2015).

Remarks: The subspecies *Bracon (Lucobracon) erraticus superciliosus* (Wesmael, 1838) was reported by Ghahari *et al.* (2011b) and Papp (2012). Papp (2012) was reported this subspecies as *B. erraticus* var. *superciliosus*.

***Bracon (Lucobracon) femoralis* (Brullé, 1832)**

General distribution: Palaearctic.

Distribution in Iran: Mazandaran (Ghahari *et al.* 2011d), Alborz (Zargar *et al.* 2015).

***Bracon (Lucobracon) fortipes* (Wesmael, 1838)**

General distribution: Palaearctic.

Distribution in Iran: Kermanshah (Ghahari and Fischer 2012), no specific locality cited (Papp 2012), Hormozgan (Ameri *et al.* 2014c), Alborz, Qazvin (Zargar *et al.* 2015).

***Bracon (Lucobracon) grandiceps* Thomson, 1892**

General distribution: Palaearctic.

Distribution in Iran: Semnan (Naderian *et al.* 2012), Lorestan (Ghahari *et al.* 2012a).

***Bracon (Lucobracon) guttiger* (Wesmael, 1838)**

General distribution: Palaearctic.

Distribution in Iran: Hamadan, Zanjan (Ghahari *et al.* 2010b), Qazvin (Samin 2015).

***Bracon (Lucobracon) humidus* Tobias, 1976**

General distribution: Palaearctic.

Distribution in Iran: Guilan (Ghahari *et al.* 2012c).

***Bracon (Lucobracon) larvicida* (Wesmael, 1838)**

General distribution: Palaearctic.

Distribution in Iran: Golestan (Ghahari and Fischer 2011c), Lorestan (Ghahari *et al.* 2012a).

***Bracon (Lucobracon) meyeri* Telenga, 1936**

General distribution: Palaearctic.

Distribution in Iran: Khorasan Razavi (Samin *et al.* 2011), Guilan (Ghahari *et al.* 2012c), Golestan (Samin *et al.* 2015).

***Bracon (Lucobracon) punctithorax* Tobias, 1959**

General distribution: Iran, Kazakhstan and Turkey.

Distribution in Iran: Kermanshah (Ghahari and Fischer 2012).

***Bracon (Lucobracon) sphaerocephalus Szépligeti, 1901***

General distribution: Palaearctic.

Distribution in Iran: No specific locality cited (Papp 2005).

***Bracon (Lucobracon) suchorukovi* Telenga, 1936**

General distribution: Palaearctic.

Distribution in Iran: East Azarbaijan (Ghahari *et al.* 2009a, reported as *Bracon sabulosus*), Guilan (Ghahari *et al.* 2012c; Sakenin *et al.* 2012).

***Bracon (Lucobracon) thuringiacus* Schmiedeknecht, 1897**

General distribution: Palaearctic.

Distribution in Iran: West Azarbaijan (Rastegar *et al.* 2012), Lorestan (Ghahari *et al.* 2012a).

***Bracon (Ophthalmobracon) ophthalmicus* Telenga, 1933**

General distribution: Palaearctic.

Distribution in Iran: Hormozgan (Ameri *et al.* 2015).

***Bracon (Orthobracon) exhilarator* Nees, 1834**

General distribution: Palaearctic.

Distribution in Iran: Kermanshah (Ghahari and Fischer 2012, reported as *Bracon (Bracon) exhilarator*).

Host: *Apion* sp. (Col.: Apionidae) (Ghahari and Fischer 2012).

***Bracon (Orthobracon) persiangulfensis* Ameri, Beyarslan & Talebi, 2014**

General distribution: Iran.

Distribution in Iran: Hormozgan (Ameri *et al.* 2014c).

***Bracon (Osculobracon) ciscaucasicus* Telenga, 1936**

General distribution: Palaearctic.

Distribution in Iran: Ardabil (Rastegar *et al.* 2012), Lorestan (Ghahari *et al.* 2012a).

***Bracon (Osculobracon) erzurumiensis* Beyarslan, 2002**

General distribution: Iran and Turkey.

Distribution in Iran: Hormozgan (Ameri *et al.* 2015).

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

General distribution: Oriental and Palaearctic.

Distribution in Iran: East Azarbaijan (Ghahari and Fischer 2011a), Ardabil (Ghahari and Fischer 2011b), no specific locality cited (Papp 2012, reported as *Bracon osculator* var. *temporalis*), Qazvin (Zargar *et al.* 2015), Semnan (Ghahari and Gadallah 2015), Hormozgan (Ameri *et al.* 2015), Fars (Samin *et al.* 2015b, reported as *B. (Glabrobracon) osculator*).

Remarks: The subspecies *Bracon (Osculobracon) osculator temporalis* Telenga, 1936 was reported from Iran by Papp (2012).

***Bracon (Pigeria) piger* (Wesmael, 1838)**

General distribution: Nearctic and Palaearctic.

Distribution in Iran: Mazandaran (Ghahari and Fischer 2011b; Sakenin *et al.* 2012),

Guilan (Ghahari *et al.* 2012c; Zargar *et al.* 2015), Hormozgan (Ameri *et al.* 2014c), Charmahal & Bakhtiari (Samin *et al.* 2015b).

***Bracon (Rostrobracon) urinator* (Fabricius, 1798)**

General distribution: Afrotropical, Oriental and Palaearctic.

Distribution in Iran: No specific locality cited (Telenga 1936; Beyarslan *et al.* 2005), Mazandaran (Ghahari *et al.* 2010b; Ghahari and Fischer 2011b), Golestan (Ghahari and Fischer 2011c).

***Habrobracon concolorans* (Marshall, 1900)**

General distribution: Oriental and Palaearctic.

Distribution in Iran: No specific locality cited (Haeselbarth 1983, reported as *Habrobracon nigricans*), Fars (Lashkari Bod *et al.* 2011a, reported as *Habrobracon nigricans*), Hormozgan (Ameri *et al.* 2014, reported as *Bracon (Habrobracon) nigricans*).

***Habrobracon crassicornis* (Thomson, 1892)**

General distribution: Palaearctic.

Distribution in Iran: Ilam (Ghahari *et al.* 2011a).

***Habrobracon didemie* (Beyarslan, 2002)**

General distribution: Iran and Turkey.

Distribution in Iran: Hormozgan (Ameri *et al.* 2015).

***Habrobracon excisus* Tobias, 1957**

General distribution: Palaearctic.

Distribution in Iran: No specific locality cited (Haeselbarth 1983).

***Habrobracon hebetor* (Say, 1836)**

General distribution: Afrotropical, Australasian, Nearctic, Neotropical, Oceanic, Oriental and Palaearctic.

Distribution in Iran: No specific locality cited (Haeselbarth 1983), Khuzestan (Siahpoush *et al.* 1993; Habibpour *et al.* 2002; Moodi *et al.* 2004; Shahabi and Rajabpour 2015), Kermanshah (Noori 1988, 1994), Kerman (Modarres Awal 1997), Bushehr (Karampour and Fasihi 2004, reported as *Bracon brevicornis*), Ilam (Gharali 2004, reported as *Bracon*

*brevicornis*; Lotfalizadeh and Gharali 2014, reported as *Bracon brevicornis*, Semnan (Dezianian and Jalali 2004; Ghahari and Gadallah 2015), Isfahan (Bagheri and Nematollahi 2006; Afiunizadeh Isfahani and Karimzadeh Isfahani 2010; Nobakht *et al.* 2015), Qom (Kishani Farahani *et al.* 2008; Norouzi *et al.* 2008), Markazi (Saveh), Tehran (Varamin) (Kishani Farahani *et al.* 2008), West Azarbaijan (Akbarzadeh Shoukat *et al.* 2008; Adldoost 2010), East Azarbaijan (Ghahari *et al.* 2011d; Lotfalizadeh and Gharali 2014), Hormozgan (Ameri *et al.* 2014c).

Hosts: *Acanthiophilus helianthi* (Rossi) (Dip.: Tephritidae) (Bagheri and Nematollahi 2006), *Batrachedra amydraula* Meyrick (Lep.: Batrachedridae) (Karampour and Fasihi 2004), *Ectomyelois ceratoniae* (Zeller) (Lep.: Pyralidae) (Kishani Farahani *et al.* 2008; Norouzi *et al.* 2008; Nobakht *et al.* 2015), *Heliothis virescens* (Hufnagel) (Lep.: Noctuidae) Adldoost 2010), *Heliothis* sp., *Chloridea* sp. (Lep.: Noctuidae) (Noori 1988, 1994; Moodi *et al.* 2004), *Lobesia botrana* Denis & Schiffermüller (Lep.: Tortricidae) (Akbarzadeh Shoukat *et al.* 2008), *Mythimna loreyi* (Duponchel) (Lep.: Noctuidae) (Siahpoush *et al.* 1993), *Phthorimaea operculella* Zeller (Lep.: Gelechiidae) (Dezianian and Jalali 2004; Shahabi and Rajabpour 2015), *Plutella xylostella* L. (Lep.: Plutellidae) (Afiunizadeh Isfahani and Karimzadeh Isfahani 2010), safflower shoot flies (Dip.: Tephritidae) (Gharali 2004; Lotfalizadeh and Gharali 2014).

Remarks: *Habrobracon brevicornis* and *H. hebetor* are considered to be synonym (Yu *et al.* 2012), but van Achterberg and Walker (1998) believe that they are two valid species.

#### ***Habrobracon iranicus* Fischer, 1972**

General distribution: Iran.

Distribution in Iran: No specific locality cited (Fischer 1972), Tehran (Shojai 1989).

Hosts: *Cydia pomonella* L. (Lep.: Tortricidae), *Heliothis dipsacea* L. (Lep.: Noctuidae) and

*Hyponomeuta malinellus* Zeller (Lep.: Yponomeutidae) (Shojai 1989).

#### ***Habrobracon radialis* Telenga, 1936**

General distribution: Palaearctic.

Distribution in Iran: Semnan (Dezianian and Quick 2006, reported as *Bracon* (*Habrobracon*) aff. *radialis*), Golestan (Ghahari and Fischer 2011b; Sakenin *et al.* 2012), Guilan (Ghahari *et al.* 2012c).

Host: *Phthorimaea operculella* Zeller (Lep.: Gelechiidae) (Dezianian and Quick 2006).

#### ***Habrobracon stabilis* (Wesmael, 1838)**

General distribution: Nearctic, Oriental and Palaearctic.

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

#### ***Habrobracon telengai* Mulyarskaya, 1955**

General distribution: Palaearctic.

Distribution in Iran: Hormozgan (Ameri *et al.* 2014c).

#### ***Pseudovipio castrator* (Fabricius, 1798)**

General distribution: Afrotropical and Palaearctic.

Distribution in Iran: Lorestan (Ghahari *et al.* 2012a), West Azarbaijan (Samin *et al.* 2014), Hormozgan, Qazvin (Zargar *et al.* 2014a).

Host: *Plagionotus arcuatus* (L.) (Col.: Cerambycidae) (Ghahari *et al.* 2012a).

#### ***Pseudovipio inscriptor* (Nees, 1834)**

General distribution: Palaearctic.

Distribution in Iran: Ilam (Ghahari *et al.* 2011a), Guilan (Ghahari *et al.* 2012c), Hormozgan, Qazvin (Zargar *et al.* 2014a).

Host: *Ostrinia nubilalis* Hübner (Lep.: Noctuidae) (Ghahari *et al.* 2012c).

#### ***Pseudovipio kirmanensis* (Kokujev, 1907)**

General distribution: Afghanistan, Iran and Turkmenistan.

Distribution in Iran: No specific locality cited (Kokujev 1907, reported as *Vipio kirmanensis*; Fahringer 1926; Telenga 1936), Sistan & Bluchestan (Hedwig 1957).

***Pseudovipio nigrirostris* (Kokujev, 1907)**

General distribution: Iran.

Distribution in Iran: No specific locality cited (Kokujev 1907, reported as *Vipio nigrirostris*; Fahringer 1926).

***Pseudovipio schaeuffelei* (Hedwig, 1957)**

General distribution: Iran.

Distribution in Iran: South Khorasan (Hedwig 1957, reported as *Bracon laetus schaeuffelei*).

***Pseudovipio tataricus* (Kokujev, 1898)**

General distribution: Palaearctic.

Distribution in Iran: No specific locality cited (Telenga 1936; Shenefelt 1978).

***Rhadinobracon nigrocephalus* (Hedwig, 1957)**

General distribution: Iran.

Distribution in Iran: Sistan & Baluchestan (Hedwig 1957, reported as *Pseudovipio nigrocephalus*).

***Rhadinobracon zarudnyi* (Telenga, 1936)**

General distribution: Iran.

Distribution in Iran: No specific locality cited (Telenga 1936; Shenefelt 1978, reported as *Heliobracon zarudnyi*).

***Vipio appellator* (Nees, 1834)**

General distribution: Palaearctic.

Distribution in Iran: Tehran (Zargar *et al.* 2014a, reported as *Vipio striolatus* Telenga, 1936).

***Vipio striolatus* Telenga, 1936**

General distribution: Distribution in Iran: Tehran (Zargar *et al.* 2014a).

***Vipio humerator* (Costa, 1885)**

General distribution: Palaearctic.

Distribution in Iran: Golestan (Ghahari *et al.* 2009b), Ilam (Ghahari *et al.* 2011a).

***Vipio illusor* (Klug, 1817)**

General distribution: Palaearctic.

Distribution in Iran: Fars (Lashkari Bod *et al.* 2010, 2011a).

***Vipio intermedius* Szépligeti, 1896**

General distribution: Palaearctic.

Distribution in Iran: East Azarbaijan, West Azarbaijan (Rastegar *et al.* 2012), Lorestan

(Ghahari *et al.* 2012a), Semnan (Ghahari and Gadallah 2015).

***Vipio longicauda* (Boheman, 1853)**

General distribution: Palaearctic.

Distribution in Iran: Guilan (Ghahari *et al.* 2012c, reported as *Vipio nominator*).

***Vipio mlokoszewiczi* Kokujev, 1898**

General distribution: Palaearctic.

Distribution in Iran: Mazandaran (Ghahari *et al.* 2009a, reported as *Isomecus mlokoszewiczi*), Alborz, Qazvin, Tehran (Zargar *et al.* 2014a), Semnan (Ghahari and Gadallah 2015).

***Vipio nomioides* Shestakov, 1926**

General distribution: Palaearctic.

Distribution in Iran: No specific locality cited (Shestakov 1926; Telenga 1936), Alborz (Zargar *et al.* 2014a).

***Vipio sareptanus* Kawall, 1865**

General distribution: Palaearctic.

Distribution in Iran: Kermanshah (Ghahari and Fischer 2012).

***Vipio tentator* (Rossi, 1790)**

General distribution: Palaearctic.

Distribution in Iran: Kermanshah (Ghahari and Fischer 2012).

***Vipio terrefactor* (Villers, 1789)**

General distribution: Palaearctic.

Distribution in Iran: No specific locality cited (Szépligeti 1901, reported as *Vipio persica*).

Remarks: *Vipio terrefactor persica* Szépligeti, 1901 was reported as subspecies by Szépligeti (1901, reported as *Vipio persica*), Telenga (1936) and Tobias (1976, 1986).

***Vipio xanthurus* (Fahringer, 1926)**

General distribution: Iran.

Distribution in Iran: No specific locality cited (Fahringer 1926).

**Tribe Coeloidini Tobias, 1957*****Coeloides bostrichorum* Giraud, 1872**

General distribution: Palaearctic.

Distribution in Iran: Ardabil (Ghahari and Fischer 2011b).

Host: *Ips typographus* (L.) (Col.: Curculionidae) (Ghahari and Fischer 2011b).

***Coeloides rossicus* (Kokujev, 1902)**

General distribution: Nearctic and Palaearctic.  
Distribution in Iran: Khorasan Razavi (Samin *et al.* 2011), Golestan (Samin *et al.* 2015).

**Tribe Glyptomorphini Tobias, 1957**

***Glyptomorpha* (*Glyptomorpha*) *discolor* (Thunberg, 1822)**

General distribution: Palaearctic.  
Distribution in Iran: Golestan (Ghahari *et al.* 2009a).

***Glyptomorpha* (*Glyptomorpha*) *kaspanyani* Tobias, 1976**

General distribution: Palaearctic.  
Distribution in Iran: Tehran (Zargar *et al.* 2014a).

***Glyptomorpha* (*Glyptomorpha*) *nachtshevanica* Tobias, 1976**

General distribution: Azerbaijan and Iran.  
Distribution in Iran: Fars (Lashkari Bod *et al.* 2010, 2011b).

***Glyptomorpha* (*Glyptomorpha*) *pectoralis* (Brullé, 1832)**

General distribution: Afrotropical, Oriental and Palaearctic.  
Distribution in Iran: No specific locality cited (Shestakov 1926; Telenga 1936; Tobias 1976; Capek and Hofmann 1997), Kermanshah (Ghahari and Fischer 2012), Guilan, Qazvin, Hormozgan (Zargar *et al.* 2014a).

Host: *Plagionotus arcuatus* (L.) (Col.: Cerambycidae) (Ghahari and Fischer 2012).

**Subfamily Cardiochilinae Ashmead, 1900**

***Cardiochiles fallax* Kokujev, 1895**

General distribution: Palaearctic.  
Distribution in Iran: Fars (Taghizadeh *et al.* 2013, on *Etiella zinckenella*), Tehran (Farahani *et al.* 2015c).  
Host: *Etiella zinckenella* Treitschke (Lep.: Pyralidae) (Taghizadeh *et al.* 2013).

***Cardiochiles fumatus* Telenga, 1949**

General distribution: Palaearctic.  
Distribution in Iran: Alborz, Tehran (Farahani *et al.* 2015c).

***Cardiochiles saltator* (Fabricius, 1781)**

General distribution: Oriental and Palaearctic.  
Distribution in Iran: Golestan (Telenga 1955, reported as *Cardiochiles brachialis* Rondani, 1877), Isfahan (Ghahari *et al.* 2011c).

***Cardiochiles shestakovi* Telenga, 1949**

General distribution: Palaearctic.  
Distribution in Iran: Yazd (Goldansaz *et al.* 1996; Shamszadeh 1998), Tehran (Farahani *et al.* 2015c).  
Host: *Epischidia caesariella* Hampson (Lep.: Pyralidae) (Goldansaz *et al.* 1996; Shamszadeh 1998).

***Cardiochiles tibialis* Hedwig, 1957**

General distribution: Iran.  
Distribution in Iran: Sistan & Baluchestan (Hedwig 1957).

***Cardiochiles triplus* Shenefelt, 1973**

General distribution: Iran.  
Distribution in Iran: Sistan & Baluchestan (Hedwig 1957), no specific locality cited (Shenefelt 1973).

***Pseudcardiochilus abnormipes* Hedwig, 1957**

General distribution: Iran.  
Distribution in Iran: Sistan & Baluchestan (Hedwig 1957).

**Subfamily Cheloninae Förster, 1862**

**Tribe Chelonini Förster, 1862**

***Ascogaster annularis* (Nees, 1816)**

General distribution: Palaearctic.  
Distribution in Iran: Alborz, Qazvin (Farahani *et al.* 2013a, 2014b).

***Ascogaster bicarinata* (Herrich-Schäffer, 1838)**

General distribution: Palaearctic.  
Distribution in Iran: No specific locality cited (Telenga 1941; Tobias 1976, 1986), Isfahan (Ghahari *et al.* 2011c), Semnan (Ghahari and Gadallah 2015).



***Ascogaster bimar* Tobias, 1986**

General distribution: Palaearctic.  
Distribution in Iran: Guilan (Farahani *et al.* 2014b).

***Ascogaster caucasica* Kokujev, 1895**

General distribution: Palaearctic.  
Distribution in Iran: Khuzestan (Huddleston 1984).

***Ascogaster dispar* Fahringer, 1934**

General distribution: Palaearctic.  
Distribution in Iran: No specific locality cited (Huddleston 1984).

***Ascogaster disparilis* Tobias, 1986**

General distribution: Iran, Russia and Turkey.  
Distribution in Iran: Guilan (Farahani *et al.* 2014b).

***Ascogaster excavata* Telenga, 1941**

General distribution: Palaearctic.  
Distribution in Iran: Alborz (Farahani *et al.* 2013a, 2014b).

***Ascogaster grahami* Huddleston, 1984**

General distribution: Oriental and Palaearctic.  
Distribution in Iran: Guilan, Mazandaran (Farahani *et al.* 2013a, 2014b).

***Ascogaster kasparyani* Tobias, 1976**

General distribution: Georgia, Greece and Iran.  
Distribution in Iran: Alborz, Qazvin, Tehran (Farahani *et al.* 2013a, 2014b).

***Ascogaster klugii* (Nees, 1816)**

General distribution: Palaearctic.  
Distribution in Iran: Mazandaran (Farahani *et al.* 2014b).

***Ascogaster quadridentata* Wesmael, 1835**

General distribution: Nearctic, Neotropical, Oceanic, Oriental and Palaearctic.  
Distribution in Iran: East Azarbaijan (Ranjbar Aghdam and Fathipour 2010), Kordestan (Ghahari *et al.* 2010b), Alborz, Guilan, Mazandaran (Farahani *et al.* 2013a, 2014b), West Azarbaijan (Akbarzadeh Shoukat *et al.* 2015), Khuzestan (Samin *et al.* 2015b).  
Hosts: *Cydia pomonella* L. (Lep.: Tortricidae) (Ranjbar Aghdam and Fathipour 2010),

*Lobesia botrana* Denis & Schiffermüller (Lep.: Tortricidae) (Akbarzadeh Shoukat *et al.* 2015).

***Ascogaster varipes* Wesmael, 1835**

General distribution: Palaearctic.  
Distribution in Iran: Alborz, Guilan, Mazandaran (Farahani *et al.* 2014b).

***Chelonus (Chelonus) annulatus* (Nees, 1816)**

General distribution: Palaearctic.  
Distribution in Iran: No specific locality cited (Telenga 1941), Guilan (Ghahari *et al.* 2012c).

***Chelonus (Chelonus) annulipes* Wesmael, 1835**

General distribution: Nearctic, Oriental and Palaearctic.  
Distribution in Iran: No specific locality cited (Telenga 1941; Tobias 1986), Alborz, Tehran, Guilan, Qazvin (Farahani *et al.* 2013a), Semnan (Ghahari and Gadallah 2015).

***Chelonus (Chelonus) armeniacus* Tobias, 1976**

General distribution: Armenia and Iran.  
Distribution in Iran: Alborz, Tehran, Qazvin (Farahani *et al.* 2013a).

***Chelonus (Chelonus) asiaticus* Telenga, 1941**

General distribution: Palaearctic.  
Distribution in Iran: Golestan (Ghahari *et al.* 2009a), Kermanshah (Ghahari and Fischer 2012).

***Chelonus (Chelonus) bidens* Tobias, 1972**

General distribution: Palaearctic.  
Distribution in Iran: Golestan (Ghahari *et al.* 2010a), Mazandaran (Ghahari *et al.* 2010a; Ghahari and Fischer 2011b; Sakenin *et al.* 2012), Lorestan (Ghahari *et al.* 2012a), Kordestan (Samin 2015).

***Chelonus (Chelonus) bonellii* (Nees, 1816)**

General distribution: Oriental and Palaearctic.  
Distribution in Iran: Tehran (Shahriar) (Farahani *et al.* 2013a).

***Chelonus (Chelonus) breviventris* Thomson, 1874**

General distribution: Palaearctic.  
Distribution in Iran: No specific locality cited (Papp 1997).

***Chelonus (Chelonus) canescens* Wesmael, 1835**

General distribution: Palaearctic.

Distribution in Iran: East Azarbaijan (Ghahari *et al.* 2009a), Guilan, Mazandaran (Farahani *et al.* 2013a).

***Chelonus (Chelonus) carbonator* Marshall, 1885**

General distribution: Oriental and Palaearctic.

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

***Chelonus (Chelonus) elongatus* Szépligeti, 1898**

General distribution: Iran, Mongolia and Russia.

Distribution in Iran: Alborz, Guilan (Farahani *et al.* 2013a).

***Chelonus (Chelonus) inanitus* (Linnaeus, 1767)**

General distribution: Nearctic and Palaearctic.

Distribution in Iran: No specific locality cited (Aubert 1966; Kanjani 2004), Alborz (Shojai 1968, 1989, 1998; Davatchi and Shojai 1969; Kheyri 1977), West Azarbaijan (Alizadeh and Javan Moghaddam 2004), Mazandaran (Ghahari *et al.* 2009a), Kermanshah (Ghahari and Fischer 2012).

Hosts: *Agrotis segetum* (Denis & Schiffermüller) (Lep.: Noctuidae) (Alizadeh and Javan Moghaddam 2004), *Spodoptera exigua* (Hübner) (Lep.: Noctuidae) (Kheyri 1977).

***Chelonus (Chelonus) iranicus* Tobias, 1972**

General distribution: Iran.

Distribution in Iran: East Azarbaijan (Tobias 1972).

***Chelonus (Chelonus) medus* Telenga, 1941**

General distribution: Iran and Turkmenistan.

Distribution in Iran: No specific locality cited (Telenga 1941).

***Chelonus (Chelonus) microsomus* Tobias, 1964**

General distribution: Palaearctic.

Distribution in Iran: Mazandaran (Ghahari *et al.* 2010a), North Iran (Sakenin *et al.* 2011), Golestan (Ghahari and Fischer 2011b; Sakenin *et al.* 2012), Kuhgiloyeh & Boyerahmad (Samin *et al.* 2015b).

***Chelonus (Chelonus) ocellatus* Alexeev, 1971**

General distribution: Palaearctic.

Distribution in Iran: Mazandaran (Ghahari *et al.* 2010a; Ghahari and Fischer 2011b; Sakenin *et al.* 2012), Kermanshah (Ghahari and Fischer, 2012), Qazvin (Samin 2015).

***Chelonus (Chelonus) oculator* (Fabricius, 1775)**

General distribution: Palaearctic.

Distribution in Iran: No specific locality cited (Telenga 1941; Tobias 1976, 1986), Lorestan (Ghahari *et al.* 2012a), Alborz, Tehran, Qazvin (Farahani *et al.* 2013a).

***Chelonus (Chelonus) productus* Herrich-Schäffer, 1838**

General distribution: Palaearctic.

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

***Chelonus (Chelonus) scabrator* (Fabricius, 1793)**

General distribution: Palaearctic.

Distribution in Iran: No specific locality cited (Telenga 1941), Guilan (Ghahari *et al.* 2009a), Sistan & Bluchestan (Khajeh *et al.* 2014d).

***Chelonus (Chelonus) setaceus* Papp, 1993**

General distribution: Iran.

Distribution in Iran: Tehran (Papp 1993; Farahani *et al.* 2013a).

***Chelonus (Chelonus) smirnovi* Telenga, 1953**

General distribution: Palaearctic.

Distribution in Iran: No specific locality cited (Tobias 1976), Lorestan (Ghahari *et al.* 2012a).

***Chelonus (Chelonus) szepligetii* Dalla Torre, 1898**

General distribution: Palaearctic.

Distribution in Iran: Khorasan Razavi (Samin *et al.* 2011), Kermanshah (Ghahari and Fischer, 2012), Qazvin (Farahani *et al.* 2013a), Charmahal & Bakhtiari (Samin *et al.* 2015b).

***Chelonus (Microchelonus) areolatus* Cameron, 1906**

General distribution: Iran, Pakistan and Turkmenistan.

Distribution in Iran: No specific locality cited (Papp 1996).

***Chelonus (Microchelonus) basalis* Curtis, 1837**

General distribution: Palaearctic.

Distribution in Iran: No specific locality cited (Telenga 1941).

***Chelonus (Microchelonus) cisapicalis* (Tobias, 1989)**

General distribution: Iran, Mongolia and Russia.

Distribution in Iran: Guilan (Ghahari *et al.* 2012c, reported as *Microchelonus cisapicalis*).

***Chelonus (Microchelonus) contractus* (Nees, 1816)**

General distribution: Palaearctic.

Distribution in Iran: Tehran (Farahbakhsh 1961), Fars (Lashkari Bod *et al.* 2011a), Guilan (Papp 2014, reported as *Microchelonus (Microchelonus) contractus*).

Host: *Scrobipalpa ocellatella* Boyd (Lep.: Gelechiidae) (Farahbakhsh 1961).

***Chelonus (Microchelonus) depressus* Thomson, 1874**

General distribution: Palaearctic.

Distribution in Iran: Tehran (Davatchi and Shojai 1969).

***Chelonus (Microchelonus) flavipalpis* Szépligeti, 1896**

General distribution: Palaearctic.

Distribution in Iran: Guilan (Farahani *et al.* 2013a).

***Chelonus (Microchelonus) flavoneavulus* Abdinbekova, 1971**

General distribution: Palaearctic.

Distribution in Iran: No specific locality cited (Tobias 2010; Papp 2014).

***Chelonus (Microchelonus) erythrogaster* Lucas, 1849**

General distribution: Palaearctic.

Distribution in Iran: Fars (Lashkari Bod *et al.* 2010, 2011a, 2011b).

***Chelonus (Microchelonus) incisus* (Tobias, 1986)**

General distribution: Palaearctic.

Distribution in Iran: Guilan (Ghahari *et al.* 2012c, reported as *Microchelonus incisus*).

***Chelonus (Microchelonus) iranicus* (Tobias, 2001)**

General distribution: Iran.

Distribution in Iran: No specific locality cited (Tobias 2001), Alborz (Papp 2014, reported as *Microchelonus (Microchelonus) iranicus*).

***Chelonus (Microchelonus) kermakiae* (Tobias, 2001)**

General distribution: Iran and Kyrgyzstan.

Distribution in Iran: Kerman (van Achterberg and Mehrnejad 2002; Mehrnejad 2009; Mehrnejad and Basirat 2009).

***Chelonus (Microchelonus) kopetdagicus* (Tobias, 1966)**

General distribution: Palaearctic.

Distribution in Iran: Sistan & Bluchestan (Khajeh *et al.* 2014d).

***Chelonus (Microchelonus) microphtalmus* Wesmael, 1838**

General distribution: Palaearctic.

Distribution in Iran: Sistan & Bluchestan (Khajeh *et al.* 2014d).

***Chelonus (Microchelonus) milkoi* Tobias, 2003**

General distribution: Iran, Kazakhstan and Kyrgyzstan.

Distribution in Iran: Guilan (Papp 2014, reported as *Microchelonus (Microchelonus) milkoi*).

***Chelonus (Microchelonus) moczari* Papp, 2014**

General distribution: Iran.

Distribution in Iran: Alborz (Papp 2014, reported as *Microchelonus (Microchelonus) moczari*).

***Chelonus (Microchelonus) mongolicus* (Telenga, 1941)**

General distribution: Iran, Mongolia and Russia.

Distribution in Iran: Guilan (Ghahari *et al.* 2012c, reported as *Microchelonus mongolicus*).

***Chelonus (Microchelonus) pectinophorae* Cushman, 1931**

General distribution: Neotropical, Oriental and Palaearctic.

Distribution in Iran: Sistan & Baluchistan (Khajeh *et al.* 2014d).

***Chelonus (Microchelonus) subcontractus* Abdinbekova, 1971**

General distribution: Palaearctic.

Distribution in Iran: Tehran (Abbasipour *et al.* 2012, reported as *Microchelonus subcontractus*).

Host: *Scrobipalpa ocellatella* Boyd (Lep.: Gelechiidae) (Abbasipour *et al.* 2012).

***Chelonus (Microchelonus) subpusillus* Tobias, 1997**

General distribution: Iran, Kazakhstan and Tajikistan.

Distribution in Iran: Fars (Papp 2014, reported as *Microchelonus (Microchelonus) subpusillus*).

***Chelonus (Microchelonus) telengai* (Abdinbekova, 1965)**

General distribution: Armenia, Azerbaijan, Iran. Distribution in Iran: No specific locality cited (Abdinbekova 1965; Tobias 1976, 1986, 2001), Alborz, Tehran, Qazvin (Farahani *et al.* 2013a).

***Chelonus (Parachelonus) pellucens* (Nees, 1816)**

General distribution: Palaearctic.

Distribution in Iran: West Azarbaijan (Ghahari and Fischer, 2011a), North Iran (Sakenin *et al.* 2011, reported as *Chelonus varimaculatus* Tobias, 1986), Guilan (Ghahari and Fischer 2011b; Sakenin *et al.* 2012, reported as *Chelonus varimaculatus* Tobias, 1986), Lorestan (Ghahari *et al.* 2012a, reported as *Chelonus varimaculatus* Tobias, 1986), Fars (Samin *et al.* 2015b).

***Chelonus (Stylochelonus) mucronatus* Thomson, 1874**

General distribution: Palaearctic.

Distribution in Iran: Ilam (Ghahari *et al.* 2010b; Gadallah and Ghahari 2013b, reported as *Chelonus (Microchelonus)*

*mucronatus*), Kordestan (Samin 2015, reported as *Chelonus (Microchelonus) mucronatus*).

**Tribe Phanerotomini Baker, 1926*****Phanerotoma (Bracotritoma) masiana* Fahringer, 1934**

General distribution: Afrotropical and Palaearctic.

Distribution in Iran: Fars (Al-e-Mansour and Mostafavi 1993).

***Phanerotoma (Bracotritoma) parva* Kokujev, 1903**

General distribution: Palaearctic.

Distribution in Iran: Fars (Al-e-Mansour and Mostafavi 1993).

***Phanerotoma (Bracotritoma) permixtella* Fischer, 1968**

General distribution: Greece, Iran and Syria.

Distribution in Iran: West Azarbaijan (Ghahari and Fischer 2011a), Hormozgan (Ameri *et al.* 2012), Golestan (Samin *et al.* 2015).

***Phanerotoma (Phanerotoma) acuminata* Szépligeti, 1908**

General distribution: Nearctic and Palaearctic.

Distribution in Iran: Guilan (Farahani *et al.* 2012b).

***Phanerotoma (Phanerotoma) fracta* Kokujev, 1903**

General distribution: Palaearctic.

Distribution in Iran: Sistan & Baluchistan (Hedwig 1957), No specific locality cited (van Achterberg 1990), Semnan (Ghahari and Gadallah 2015).

***Phanerotoma (Phanerotoma) katkowi* Kokujev, 1900**

General distribution: Palaearctic.

Distribution in Iran: Fars (Al-e-Mansour and Mostafavi 1993).

***Phanerotoma (Phanerotoma) kozlovi* Shestakov, 1930**

General distribution: Palaearctic.

Distribution in Iran: Hormozgan (Ameri *et al.* 2012).

***Phanerotoma (Phanerotoma) leucobasis* Kriechbaumer, 1894**

General distribution: Afrotropical, Nearctic, Oceanic and Palaeartic.

Distribution in Iran: Sistan & Baluchestan (Hedwig 1957, reported as *Phanerotoma hispanica* var. *desertorum*; van Achterberg 1990, reported as *Phanerotoma ocularis*), date-palm planting area (Gharib 1968, reported as *Phanerotoma ocularis*), Isfahan (Sobhani *et al.* 2012).

Hosts: *Batrachedra amydraula* Meyrick (Lep.: Batrachedridae) (Gharib 1968), *Ectomyelois ceratoniae* (Zeller) (Lep.: Pyralidae) (Sobhani *et al.* 2012).

***Phanerotoma (Phanerotoma) minuta* Kokujev, 1903**

General distribution: Oriental and Palaeartic.

Distribution in Iran: Sistan & Baluchestan (Farahani *et al.* 2012e).

***Phanerotoma (Phanerotoma) rufescens* (Latreille, 1809)**

General distribution: Palaeartic.

Distribution in Iran: Hormozgan (Ameri *et al.* 2012).

***Phanerotoma (Phanerotoma) syleptae* Zettel, 1990**

General distribution: Oriental and Palaeartic.

Distribution in Iran: Tehran (Varamin) (Zettel 1990).

***Phanerotomella rufa* (Marshall, 1898)**

General distribution: Oriental and Palaeartic.

Distribution in Iran: Alborz, Tehran (Farahani *et al.* 2012b), Hormozgan (Ameri *et al.* 2012).

**Subfamily Doryctinae Förster, 1862****Tribe Doryctini Förster, 1862*****Dendrosoter (Dendrosoter) protuberans* (Nees, 1834)**

General distribution: Nearctic and Palaeartic.

Distribution in Iran: Alborz (Farahani *et al.* 2014c).

***Dendrosoter (Dendrosoter) middendorffii* (Ratzeburg, 1848)**

General distribution: Oriental and Palaeartic.

Distribution in Iran: No specific locality cited (Belokobylskij and Tobias 1986), Ardabil (Basiri *et al.* 2013).

Host: *Scolytus rugulosus* (Mueller) (Col.: Curculionidae) (Basiri *et al.* 2013).

***Doryctes inopinatus* Belokobylskij, 1984**

General distribution: Iran and Tajikistan.

Distribution in Iran: Hormozgan (Ameri *et al.* 2014a).

***Doryctes leucogaster* (Nees, 1834)**

General distribution: Oriental and Palaeartic.

Distribution in Iran: No specific locality cited (Telenga 1941; Shenefelt and Marsh 1976), Ilam (Ghahari *et al.* 2011a), Alborz, Qazvin (Farahani *et al.* 2014c), Hormozgan (Ameri *et al.* 2014a), West Azarbaijan (Samin *et al.* 2014).

***Doryctes striatellus* (Nees, 1834)**

General distribution: Oriental and Palaeartic.

Distribution in Iran: East Azarbaijan (Rastegar *et al.* 2012), West Azarbaijan (Samin *et al.* 2014).

***Ontsira ignea* (Ratzeburg, 1852)**

General distribution: Oriental and Palaeartic.

Distribution in Iran: Ilam (Ghahari *et al.* 2011a).

***Ontsira imperator* (Haliday, 1836)**

General distribution: Nearctic, Oriental and Palaeartic.

Distribution in Iran: No specific locality cited (Telenga 1941; Shenefelt and Marsh 1976), Qazvin (Ghahari *et al.* 2011b).

***Ontsira longicaudis* (Giraud, 1857)**

General distribution: Palaeartic.

Distribution in Iran: Mazandaran (Farahani *et al.* 2014c).

***Rhoptrocentrus piceus* Marshall, 1897**

General distribution: Nearctic, Oriental, Oceanic and Palaeartic.

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

***Gildoria titubata* (Papp, 1985)**

General distribution: Palaearctic.

Distribution in Iran: West Azarbaijan (Ghahari and Fischer 2011a, reported as subfamily Cheloninae), Kuhgiloyeh & Boyerahmad (Samin *et al.* 2015b).

**Tribe Ecphylini Hellén, 1957*****Ecphylus (Ecphylus) silesiacus* (Ratzeburg, 1848)**

General distribution: Palaearctic.

Distribution in Iran: No specific locality cited (Aubert 1966; Shenefelt and Marsh 1976), Tehran, Markazi, Semnan (Davatchi and Radjabi 1969; Radjabi 1976, 1991; Shojai 1963, 1969, 1989, reported as *Ecphylus carinatus*).

Host: *Ruguloscolytus mediterraneus* (Eggers) (Col.: Curculionidae) (Radjabi 1976, 1991; Shojai 1963, 1969, 1989).

**Tribe Hecabolini Förster, 1862*****Leluthia (Euhecabolodes) asiatica* (Tobias, 1980)**

General distribution: Iran, Kazakhstan, Mongolia.

Distribution in Iran: Mazandaran (Farahani *et al.* 2014c).

***Leluthia (Euhecabolodes) ruguloscolyti* (Fischer, 1962)**

General distribution: Iran, Tajikistan and Turkmenistan.

Distribution in Iran: No specific locality cited (Fischer 1962; Aubert 1966; Belokobylskij and Tobias 1986), Tehran, Markazi, Kordestan, Zanjan, Isfahan (Shojai 1963, 1968, 1989; Davatchi and Shojai 1969; Radjabi 1976, 1991, reported as *Hecabalodes ruguloscolytus*)

Hosts: *Ruguloscolytus mediterraneus* (Eggers) (Col.: Curculionidae), *Scolytochelus multistriatus* Reitter (Col.: Curculionidae) and *Phloeosinus bicolor* auct. (null) (Col.: Curculionidae) (Shojai 1963, 1968, 1989; Davatchi and Shojai 1969; Radjabi 1976, 1991).

***Leluthia (Euhecabolodes) transcaucasica* (Tobias, 1976)**

General distribution: Palaearctic.

Distribution in Iran: Hormozgan (Ameri *et al.* 2014a).

***Leluthia (Leluthia) paradoxa* (Picard, 1938)**

General distribution: Palaearctic.

Distribution in Iran: Ilam (Ghahari *et al.* 2011a), Golestan (Sakenin *et al.* 2012).

***Hecabalodes xylophagi* Fischer, 1962**

General distribution: Afrotropical and Palaearctic.

Distribution in Iran: Tehran (Shojai 1989).

Host: *Ruguloscolytus mediterraneus* (Eggers) (Col.: Curculionidae) (Shojai 1989).

***Hecabolus sulcatus* Curtis, 1834**

General distribution: Palaearctic.

Distribution in Iran: Mazandaran (Farahani *et al.* 2014c).

**Tribe Heterospilini Fischer, 1981*****Heterospilus (Heterospilus) hemipterus* (Thomson, 1892)**

General distribution: Palaearctic.

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

***Heterospilus (Heterospilus) tauricus* Telenga, 1941**

General distribution: Palaearctic.

Distribution in Iran: Alborz, Guilan, Qazvin, Tehran (Farahani *et al.* 2014c).

**Tribe Holcobraconini Cameron, 1905*****Zombrus flavipennis* (Brullé, 1846)**

General distribution: Iran and Pakistan.

Distribution in Iran: No specific locality cited (Shenefelt and Marsh 1976).

**Tribe Rhaconotini Fahringer, 1928*****Rhaconotus aciculatus* Ruthe, 1854**

General distribution: Oriental and Palaearctic.

Distribution in Iran: Alborz, Guilan, Mazandaran, Tehran (Farahani *et al.* 2014c).

Hormozgan (Ameri *et al.* 2014a), West Azarbaijan (Samin *et al.* 2014).

***Rhaconotus kerzhneri* Belokobylskij, 1985**

General distribution: Palaearctic.

Distribution in Iran: Hormozgan (Ameri *et al.* 2014a).

***Rhaconotus scaber* Kokujev, 1900**

General distribution: Palaearctic.

Distribution in Iran: Alborz, Tehran (Farahani *et al.* 2014c).

***Rhaconotus testaceus* (Szépligeti, 1908)**

General distribution: Oriental and Palaearctic.

Distribution in Iran: Hormozgan (Ameri *et al.* 2014a, reported as *Rhaconotus flavistigma*).

***Rhaconotus zarudnyi* Belokobylskij, 1990**

General distribution: China, Iran, Vietnam.

Distribution in Iran: Kerman (Belokobylskij 1990).

**Tribe Spathiini Marshall, 1872**

***Spathius brevicaudis* Ratzeburg, 1844**

General distribution: Oriental and Palaearctic.

Distribution in Iran: Gilan, Mazandaran (Farahani *et al.* 2014c).

***Spathius curvicaudis* Ratzeburg, 1844**

General distribution: Palaearctic.

Distribution in Iran: Gilan, Mazandaran (Farahani *et al.* 2014c), West Azarbaijan (Samin *et al.* 2014).

***Spathius exarator* (Linnaeus, 1758)**

General distribution: Nearctic, Oceanic, Oriental and Palaearctic.

Distribution in Iran: Guilan (Farahani *et al.* 2014c), Hormozgan (Ameri *et al.* 2014a).

***Spathius pedestris maderi* Fahringer, 1930**

General distribution: Palaearctic.

Distribution in Iran: Ilam (Ghahari *et al.* 2011a, reported as *Spathius maderi*), Mazandaran (Sakenin *et al.* 2012, reported as *Spathius maderi*).

***Spathius polonicus* Niezabitowski, 1910**

General distribution: Palaearctic.

Distribution in Iran: Alborz (Fischer 1970; Radjabi 1989, reported as *Spathius radjabii* Fischer; Farahani *et al.* 2014c), Qazvin (Radjabi 1989, reported as *Spathius radjabii*; Farahani *et al.* 2014c), Zanjan, Semnan, Kordestan, Markazi (Radjabi 1976, 1989), East Azarbaijan (Ghahari *et al.* 2009c, on *Agrilus viridis*).

Host: *Agrilus viridis* (L.) (Col.: Buprestidae) (Ghahari *et al.* 2009c), *Sphenoptera davatchii* Desc., *S. kambyses* Obenb. (Col.: Buprestidae) and *Chrysobothris affinis* (Fabricius) (Col.: Buprestidae) (Radjabi 1989).

***Spathius rubidus* (Rossi, 1794)**

General distribution: Nearctic and Palaearctic.

Distribution in Iran: Mazandaran (Ghahari *et al.* 2009b; Farahani *et al.* 2014c), Guilan (Farahani *et al.* 2014c), Hormozgan (Ameri *et al.* 2014a).

**Subfamily Euphorinae Förster, 1862**

**Tribe Centistini Capek, 1970**

***Allurus lituratus* (Haliday, 1835)**

General distribution: Oriental, Nearctic and Palaearctic.

Distribution in Iran: Mazandaran (Ghahari *et al.* 2010a), Hormozgan (Ameri *et al.* 2014), Golestan (Samin *et al.* 2015).

***Allurus muricatus* (Haliday, 1833)**

General distribution: Palaearctic.

Distribution in Iran: Qazvin (Farahani *et al.* 2013b).

***Centistes (Ancylocentrus) ater* (Nees, 1834)**

General distribution: Nearctic and Palaearctic.

Distribution in Iran: Kermanshah (Gadallah *et al.* 2016b).

***Centistes (Centistes) fuscipes* (Nees, 1834)**

General distribution: Palaearctic.

Distribution in Iran: Ardabil (Ghahari and Fischer 2011a).

***Centistes (Centistes) cuspidatus* (Haliday, 1833)**

General distribution: Palaearctic.

Distribution in Iran: Mazandaran (Gadallah *et al.* 2016b).

**Tribe Dinocampini Shaw, 1985*****Dinocampus coccinellae* (Schrank, 1802)**

General distribution: Australasian, Nearctic, Neotropical, Oceanic, Oriental and Palaearctic.

Distribution in Iran: Isfahan (Bagheri 1998, reported as *Perilitus coccinillae*; Samin 2015), Mazandaran (Ghahari *et al.* 2010a), Hamadan (Tavoosi Ajvad *et al.* 2014), Tehran (Shahriar), Guilan, Qazvin (Farahani *et al.* 2013b), Yazd (Farahani *et al.* 2013b), Hormozgan (Ameri *et al.* 2014b).

Hosts: *Coccinella septempunctata* L. (Col.: Coccinellidae) (Bagheri 1998; Farahani *et al.* 2013b), *Hippodamia variegata* (Goeze) (Col.: Coccinellidae) (Tavoosi Ajvad *et al.* 2014).

**Tribe Euphorini Förster, 1862*****Chrysopophthorus hungaricus* (Kiss, 1927)**

General distribution: Oceanic and Palaearctic.  
Distribution in Iran: East Azarbaijan (Ghahari *et al.* 2009c).

Host: *Chrysopa carnea* Stephans (Neuroptera: Chrysopidae) (Ghahari *et al.* 2009c).

***Leiophron (Euphoriana) deficiens* (Ruthe, 1856)**

General distribution: Palaearctic.

Distribution in Iran: Mazandaran (Ghahari and Fischer 2011b; Sakenin *et al.* 2012), Lorestan (Ghahari *et al.* 2012a, reported as *Leiophron (Euphorus) deficiens*), Alborz, Tehran (Farahani *et al.* 2013c), North Khorasan (Samin 2015).

***Leiophron (Euphoriana) heterocordyli* Richards, 1967**

General distribution: Palaearctic.

Distribution in Iran: Guilan (Ghahari and Fischer 2011b; Sakenin *et al.* 2012, reported as *Leiophron (Leiophron) heterocordyli*).

***Leiophron (Euphorus) pallidistigma* Curtis, 1833**

General distribution: Palaearctic.

Distribution in Iran: Guilan, Mazandaran (Farahani *et al.* 2013c, reported as *Euphorus pallidistigma*).

***Leiophron (Euphorus) similis* Curtis, 1833**

General distribution: Palaearctic.

Distribution in Iran: Guilan (Farahani *et al.* 2013c, reported as *Euphorus similis*).

***Leiophron (Leiophron) fascipennis* (Ruthe, 1856)**

General distribution: Palaearctic.

Distribution in Iran: Guilan (Farahani *et al.* 2013c).

***Peristenus grandiceps* (Thomson, 1892)**

General distribution: Palaearctic.

Distribution in Iran: Hormozgan (Ameri *et al.* 2014b).

***Peristenus nitidus* (Curtis, 1833)**

General distribution: Palaearctic.

Distribution in Iran: West Azarbaijan (Gadallah *et al.* 2016b).

***Peristenus pallipes* Curtis, 1833**

General distribution: Nearctic, Oriental and Palaearctic.

Distribution in Iran: Guilan, Mazandaran (Farahani *et al.* 2013b, reported as *Peristenus pallipes*).

***Peristenus picipes* Curtis, 1833**

General distribution: Palaearctic.

Distribution in Iran: Fars (Lashkari Bod *et al.* 2010, 2011a, reported as *Peristenus picipes*).

***Peristenus relictus* (Ruthe, 1856)**

General distribution: Nearctic and Palaearctic.

Distribution in Iran: Qazvin (Farahani *et al.* 2013b).

***Wesmaelia petiolata* (Wollaston, 1858)**

General distribution: Nearctic, Neotropical, Oceanic, Oriental and Palaearctic.

Distribution in Iran: No specific locality cited (Belokobylskij 1992, reported as *Wesmaelia pendula* Förster, 1862), Hormozgan (Ameri *et al.* 2014b).

**Tribe Meteorini Cresson, 1887*****Meteorus affinis* (Wesmael, 1835)**

General distribution: Oriental and Palaearctic.

Distribution in Iran: Hamadan (Gadallah *et al.* 2016b).



***Meteorus alborossicus* Lobodenko, 2000**

General distribution: Palaearctic.

Distribution in Iran: Mazandaran (Farahani and Talebi 2012).

***Meteorus brevi antennatus* Tobias, 1986**

General distribution: Georgia, Iran and Russia.

Distribution in Iran: Guilan, Mazandaran (Farahani and Talebi 2012).

***Meteorus breviterebratus* Ameri, Talebi & Beyarslan, 2014**

General distribution: Iran.

Distribution in Iran: Hormozgan (Ameri *et al.* 2014b).

***Meteorus cinctellus* (Spinola, 1808)**

General distribution: Oceanic, Oriental and Palaearctic.

Distribution in Iran: Guilan, Mazandaran (Farahani and Talebi 2012).

***Meteorus colon* (Haliday, 1835)**

General distribution: Oriental and Palaearctic.

Distribution in Iran: Kermanshah (Ghahari *et al.* 2010c, reported as *Meteorus luridus* Ruthe, 1862), Guilan (Farahani and Talebi 2012).

Host: *Saturnia pavonia* (L.) (Lep.: Saturniidae) (Ghahari *et al.* 2010c).

***Meteorus consimilis* (Nees, 1834)**

General distribution: Palaearctic.

Distribution in Iran: Guilan, Mazandaran (Farahani and Talebi 2012).

***Meteorus ictericus* (Nees, 1811)**

General distribution: Australasian, Nearctic, Oceanic, Oriental and Palaearctic.

Distribution in Iran: Mazandaran (Farahani and Talebi 2012).

***Meteorus obsoletus* (Wesmael, 1835)**

General distribution: Palaearctic.

Distribution in Iran: East Azarbaijan (Nikdel *et al.* 2004).

Host: *Euproctis chrysorrhoea* L. (Lep.: Lymantriidae) (Nikdel *et al.* 2004).

Remarks: Ameri *et al.* (2014b) had erroneously recorded from Ardabil province with reference to Nikdel *et al.* (2004).

***Meteorus pendulus* (Müller, 1776)**

General distribution: Nearctic, Oceanic, Oriental and Palaearctic.

Distribution in Iran: Mazandaran (Abbasipour 2001; Abbasipour *et al.* 2004, reported as *Meteorus gyrator*; Farahani and Talebi 2012), no specific locality cited (Stigenberg and Ronquist 2011), Isfahan (Ghahari *et al.* 2011c, reported as *Meteorus gyrator*), Guilan, Qazvin (Farahani and Talebi 2012), West Azarbaijan (Farahani and Talebi 2012).

Hosts: *Mythimna unipuncta* (Haworth) (Lep.: Noctuidae) (Abbasipour 2001; Abbasipour *et al.* 2004), *Spodoptera exigua* (Hübner) (Lep.: Noctuidae) (Farahani and Talebi 2012).

***Meteorus pulchricornis* (Wesmael, 1835)**

General distribution: Australasian, Oceanic, Oriental and Palaearctic.

Distribution in Iran: Mazandaran (Herard *et al.* 1979; Ghahari *et al.* 2009a, reported as subfamily Meteorinae; Farahani and Talebi 2012).

Host: *Lymantria dispar* (L.) (Lep.: Lymantriidae) (Herard *et al.* 1979).

***Meteorus rubens* (Nees, 1811)**

General distribution: Nearctic, Neotropical, Oriental and Palaearctic.

Distribution in Iran: No specific locality cited (Aubert 1966; Stigenberg and Ronquist 2011), Alborz (Shojai 1968; Davatchi and Shojai 1969, reported as *Meteorus mesopotanicus*; Farahani and Talebi 2012), Khuzestan (Modares Awal 1997), Mazandaran, Tehran (Farahani and Talebi 2012), Qazvin (Farahani and Talebi 2012), Hormozgan (Ameri *et al.* 2014b), Khorasan Razavi (Darsouei and Karimi 2015).

Host: *Spodoptera exigua* (Hübner) (Lep.: Noctuidae) (Shojai 1968; Davatchi and Shojai 1969; Farahani and Talebi 2012; Darsouei and Karimi 2015).

***Meteorus rufus* (DeGeer, 1778)**

General distribution: Oceanic, Oriental and Palaearctic.

Distribution in Iran: Charmahal & Bakhtiari (Gadallah *et al.* 2016b).

***Meteorus versicolor* (Wesmael, 1835)**

General distribution: Nearctic, Oriental and Palaearctic.

Distribution in Iran: Tehran (Shojai 1989, reported as *Meteorus decoloratus*), East Azarbaijan (Nikdel *et al.* 2004), Golestan (Ghahari *et al.* 2009a, reported as subfamily Meteorinae), Guilan (Farahani and Talebi 2012).

Host: *Euproctis chrysorrhoea* L. (Lep.: Lymantriidae) (Shojai 1989; Nikdel *et al.* 2004).

***Meteorus vexator* (Haliday, 1835)**

General distribution: Palaearctic.

Distribution in Iran: Guilan (Farahani and Talebi 2012).

***Zele albiditarsus* Curtis, 1832**

General distribution: Nearctic, Neotropical, Oriental and Palaearctic.

Distribution in Iran: Alborz (Farahani and Talebi 2012).

***Zele chlorophthalmus* (Spinola, 1808)**

General distribution: Afrotropical, Oceanic, Oriental and Palaearctic.

Distribution in Iran: Guilan (Ghahari *et al.* 2009a, reported as subfamily Meteorinae), Mazandaran (Farahani and Talebi 2012).

**Tribe Myiocephalini Chen & van Achterberg, 1997*****Myiocephalus boops* (Wesmael, 1835)**

General distribution: Nearctic, Oriental and Palaearctic.

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

**Tribe Neoneurini Bengtsson, 1918*****Elasmosoma berolinense* Ruthe, 1858**

General distribution: Palaearctic.

Distribution in Iran: Ardabil (Ghahari *et al.* 2009b).

***Elasmosoma luxemburgense* Wasmann, 1909**

General distribution: Palaearctic.

Distribution in Iran: Alborz (Farahani *et al.* 2014h).

**Tribe Perilitini Förster, 1862*****Ecclitura primoris* Kokujev, 1902**

General distribution: Palaearctic.

Distribution in Iran: Sistan & Baluchestan (Hedwig 1957, reported as *Blacus pallens* (Hedwig, 1957)), no specific locality cited (Achterberg 1980; Haeselbarth 1983; Tobias 1986).

***Microctonus aethiops* (Nees, 1834)**

General distribution: Australasian, Nearctic, Neotropical, Oceanic and Palaearctic.

Distribution in Iran: Alborz (Mirabzadeh 1968; Farahani *et al.* 2013b, reported as *Perilitus aethiops*), Hamedan (Arbab and McNeill 2001, reported as *Microctonus aethiopoides*), Qazvin (Arbab and McNeill 2001; Farahani *et al.* 2013b, reported as *Perilitus aethiops*), Kermanshah (Ghahari *et al.* 2010b, reported as *Perilitus* (*Microctonus*) *aethiops*), Lorestan (Ghahari *et al.* 2012a, reported as *Perilitus* (*Microctonus*) *aethiops*), Guilan, Mazandaran (Farahani *et al.* 2013b, reported as *Perilitus aethiops*), Kordestan (Samin 2015).

Host: *Hypera postica* (Gyllenhal) (Col.: Curculionidae) (Mirabzadeh 1968).

***Microctonus brevicollis* (Haliday, 1835)**

General distribution: Palaearctic.

Distribution in Iran: Hamadan (Gadallah *et al.* 2016b).

***Microctonus colesi* Drea, 1968**

General distribution: Nearctic and Palaearctic.

Distribution in Iran: No specific locality cited (Bartlett *et al.* 1978).

Host: *Hypera postica* (Gyllenhal) (Col.: Curculionidae) (Bartlett *et al.* 1978).

***Microctonus flaciger* Ruthe, 1856**

General distribution: Palaearctic.

Distribution in Iran: North Khorasan (Gadallah *et al.* 2016b).

***Microctonus melanopus* Ruthe, 1856**

General distribution: Nearctic and Palaearctic.

Distribution in Iran: Sistan & Baluchestan (Sedighi *et al.* 2014).

***Microctonus morimi* (Ferrière, 1931)**

General distribution: Iran and Italy.

Distribution in Iran: East Azarbaijan (Sakenin *et al.* 2009b).

***Microctonus stelleri* Loan, 1972**

General distribution: Nearctic (introduced) and Palaearctic.

Distribution in Iran: Isfahan (Ghahari *et al.* 2010b, reported as *Perilitus* (*Microctonus*) *stelleri*), Guilan (Farahani *et al.* 2013b, reported as *Perilitus stelleri*), Golestan (Samin *et al.* 2015, reported as *Perilitus* (*Microctonus*) *stelleri*).

***Perilitus foveolatus* Reinhard, 1862**

General distribution: Palaearctic.

Distribution in Iran: Guilan, Qazvin (Farahani *et al.* 2013b).

***Perilitus rutilus* (Nees, 1811)**

General distribution: Nearctic and Palaearctic.

Distribution in Iran: Guilan, Mazandaran, Qazvin (Farahani *et al.* 2013b).

***Perilitus stenocari* Haeselbarth, 2008**

General distribution: Palaearctic.

Distribution in Iran: Tehran (Haeselbarth 2008; Gadallah *et al.* 2016b, reported as *Microctonus stenocari*).

***Townesilitus bicolor* (Wesmael, 1835)**

General distribution: Nearctic (introduced) and Palaearctic.

Distribution in Iran: Isfahan (Ghahari *et al.* 2011c, reported as *Townesilitus bicolor*), Guilan, Mazandaran (Farahani *et al.* 2013b), Semnan (Samin *et al.* 2014), Golestan (Samin *et al.* 2015).

**Tribe Syntretini Shaw, 1985*****Syntretus* (*Syntretus*) *idalius* (Haliday, 1833)**

General distribution: Palaearctic.

Distribution in Iran: Lorestan (Ghahari *et al.* 2012a).

Remarks: Ameri *et al.* (2014b) had erroneously recorded from East Azarbaijan province with reference to Ghahari *et al.* (2012a).

***Syntretus* (*Syntretus*) *ocularis* van Achterberg & Haeselbarth, 2003**

General distribution: Palaearctic.

Distribution in Iran: Guilan, Mazandaran (Farahani *et al.* 2012c).

***Syntretus* (*Syntretus*) *xanthocephalus* (Marshall, 1887)**

General distribution: Oriental and Palaearctic.

Distribution in Iran: Guilan (Farahani *et al.* 2012c).

**Subfamily Gnamptodontinae Fischer, 1970*****Gnamptodon breviradialis* (Fischer, 1959)**

General distribution: Palaearctic.

Distribution in Iran: Guilan, Mazandaran (Farahani *et al.* 2014d).

***Gnamptodon decoris* (Förster, 1862)**

General distribution: Palaearctic.

Distribution in Iran: Guilan, Mazandaran (Farahani *et al.* 2014d).

***Gnamptodon georginae* (van Achterberg, 1983)**

General distribution: Palaearctic.

Distribution in Iran: Golestan (Ghahari *et al.* 2010b), Alborz, Guilan, Qazvin, Tehran (Farahani *et al.* 2014d), Khuzestan (Samin *et al.* 2015b).

***Gnamptodon pumilio* (Nees, 1834)**

General distribution: Palaearctic.

Distribution in Iran: Guilan, Mazandaran (Farahani *et al.* 2014d).

**Subfamily Helconinae Förster, 1862****Tribe Diospilini Förster, 1862*****Aspicolpus borealis* (Thomson, 1892)**

General distribution: Palaearctic.

Distribution in Iran: Tehran (Hedwig 1957, reported as *Helcon borealis*), Golestan (Ghahari *et al.* 2010a).

***Aspicolpus carinator* (Nees, 1812)**

General distribution: Palaearctic.

Distribution in Iran: Ardabil (Gadallah *et al.* 2016b).

Remarks: According to van Achterberg (2014), *Aspicolpus carinator* is synonym of *A. borealis* (Thomson, 1892).

***Diospilus (Diospilus) capito* (Nees, 1834)**

General distribution: Palaearctic.

Distribution in Iran: Charmahal & Bakhtiari (Gadallah *et al.* 2016b).

***Diospilus (Diospilus) nigricornis* (Wesmael, 1835)**

General distribution: Palaearctic.

Distribution in Iran: Khuzestan (Ghahari *et al.* 2010b), Golestan (Samin *et al.* 2015).

***Diospilus (Diospilus) productus* Marshall, 1894**

General distribution: Palaearctic.

Distribution in Iran: Kordestan (Gadallah *et al.* 2016b).

***Taphaeus hiator* (Thunberg, 1822)**

General distribution: Nearctic and Palaearctic.

Distribution in Iran: Charmahal & Bakhtiari (Ghahari *et al.* 2010b; Samin 2015), East Azerbaijan (Sakenin *et al.* 2009a).

**Tribe Helconini Förster, 1862*****Helcon claviventris* Wesmael, 1835**

General distribution: Oriental and Palaearctic.

Distribution in Iran: Tehran (Hedwig 1957).

***Helcon heinrichi* Hedqvist, 1967**

General distribution: Iran.

Distribution in Iran: No specific locality cited (Hedqvist 1967).

***Helconidea dentator* (Fabricius, 1804)**

General distribution: Palaearctic.

Distribution in Iran: No specific locality cited (Sakenin *et al.* 2009b).

**Subfamily Homolobinae van Achterberg, 1979*****Homolobus (Apatia) ophioninus* (Vachal, 1907)**

General distribution: Afrotropical, Australasian, Oceanic and Palaearctic.

Distribution in Iran: Fars (Beshneh) (van Achterberg 1979).

***Homolobus (Apatia) truncator* (Say, 1829)**

General distribution: Afrotropical, Nearctic, Neotropical, Oriental and Palaearctic.

Distribution in Iran: East Azarbaijan (Ghahari *et al.* 2009a, 2009c), Alborz, Tehran

(Shahriar), Qazvin, Gilan, Mazandaran (Farahani *et al.* 2012d).

***Homolobus (Chartolobus) infumator* (Lyle, 1914)**

General distribution: Nearctic, Neotropical, Oriental and Palaearctic.

Distribution in Iran: Gilan, Mazandaran (Farahani *et al.* 2012d).

**Subfamily Hormiinae Förster, 1862****Tribe Avgini Belokobylskij, 1993*****Pseudobiosteres blaciformis* Hedwig, 1961**

General distribution: Afghanistan and Iran.

Distribution in Iran: Khorasan-e-Jounobi (Samin *et al.* 2011).

***Pseudobiosteres imperfectus* Hedwig, 1961**

General distribution: Afghanistan and Iran.

Distribution in Iran: Khorasan Razavi (Samin *et al.* 2011), Fars (Samin *et al.* 2015b).

***Pseudohormius flavobasalis* (Hedwig, 1957)**

General distribution: Iran, Turkmenistan.

Distribution in Iran: Sistan & Baluchestan (Hedwig 1957, reported as *Perilitus flavobasalis*), Hormozgan (Ameri *et al.* 2016).

***Pseudohormius turkmenus* Tobias & Alexeev, 1973**

General distribution: Palaearctic.

Distribution in Iran: Hormozgan (Ameri *et al.* 2016).

**Tribe Hormiini Förster, 1862*****Hormisca pseudomitis* (Hedwig, 1957)**

General distribution: Afghanistan and Iran.

Distribution in Iran: Sistan & Baluchestan (Hedwig 1957, reported as *Euphorus pseudomitis*).

Remarks: According to Gadallah *et al.* (2016b), this species is a new combination for the *Euphorus pseudomitis* Hedwig, 1957 (Braconidae: Euphorinae).

***Hormisca tatianae* Telenga, 1941**

General distribution: Palaearctic.

Distribution in Iran: No specific locality cited (Telenga 1941; Shenefelt 1975; Belokobylskij and Tobias 1986), Gilan (Ghahari *et al.* 2009a, reported as subfamily Exothecinae).

***Hormius moniliatus* (Nees, 1811)**

General distribution: Nearctic, Oceanic, Oriental and Palaearctic.

Distribution in Iran: Mazandaran (Ghahari *et al.* 2009a, reported as subfamily Exothecinae), East Azarbaijan (Ghahari *et al.* 2009c, reported as subfamily Exothecinae), Isfahan (Ghahari *et al.* 2011c), West Azarbaijan (Samin *et al.* 2014), Hormozgan (Ameri *et al.* 2016).

***Hormius radialis* Telenga, 1941**

General distribution: Palaearctic.

Distribution in Iran: Isfahan (Ghahari *et al.* 2011c), Hormozgan (Ameri *et al.* 2016).

***Hormius sculpturatus* Tobias, 1967**

General distribution: Iran, Turkmenistan.

Distribution in Iran: Fars (Al-e-Mansour and Mostafavi 1993), Hormozgan (Ameri *et al.* 2016).

***Hormius similis* Szépligeti, 1896**

General distribution: Oriental and Palaearctic.

Distribution in Iran: Qazvin (Ghahari *et al.* 2011b), West Azarbaijan (Samin *et al.* 2014).

**Subfamily Ichneutinae Förster, 1862*****Pseudichneutes atanassovae* van Achterberg, 1997**

General distribution: Western Palaearctic

Distribution in Iran: Alborz (Farahani *et al.* 2012e).

**Subfamily Macrocentrinae Förster, 1862*****Macrocentrus bicolor* Curtis, 1833**

General distribution: Oriental and Palaearctic.

Distribution in Iran: Fars (Ghahari *et al.* 2010b; Samin 2015), Guilan (Farahani *et al.* 2012a).

***Macrocentrus blandus* Eady & Clark, 1964**

General distribution: Palaearctic.

Distribution in Iran: Alborz, Guilan, Mazandaran (Farahani *et al.* 2012a).

***Macrocentrus cingulum* Brischke, 1882**

General distribution: Nearctic, Oriental and Palaearctic.

Distribution in Iran: Guilan, Mazandaran (Farahani *et al.* 2012a).

***Macrocentrus collaris* (Spinola, 1808)**

General distribution: Afrotropical, Neotropical, Oceanic, Oriental and Palaearctic.

Distribution in Iran: Alborz (Shojai 1968; Farahani *et al.* 2012a), no specific locality cited (Aubert 1966; Belokobylskij 2000), Fars (Al-e-Mansour and Mostafavi 1993), Mazandaran (Ghahari *et al.* 2009a, reported as *Macrocentrus* (*Amicroplus*) *collaris*; Farahani *et al.* 2012a), Guilan, Qazvin, Tehran (Farahani *et al.* 2012a).

Host: *Agrotis segetum* (Denis & Schiffermüller) (Lep.: Noctuidae) (Shojai 1968).

***Macrocentrus equalis* Lyle, 1914**

General distribution: Palaearctic.

Distribution in Iran: Mazandaran (Farahani *et al.* 2012a).

***Macrocentrus flavus* Vollenhoven, 1878**

General distribution: Palaearctic.

Distribution in Iran: Fars (van Achterberg 1993).

***Macrocentrus marginator* (Nees, 1811)**

General distribution: Nearctic, Oriental and Palaearctic.

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

**Subfamily Microgastrinae Förster, 1862****Tribe Apantelini Viereck, 1918*****Apanteles aethiopicus* Wilkinson, 1931**

General distribution: Afrotropical and Iran.

Distribution in Iran: Guilan (Ghahari *et al.* 2010c, reported as *Dolichogenidea aethiopica*).

Hosts: *Holocerina angulata* (Aurivillius) (Lep.: Saturniidae) and *Gonimbrasia tyrrhea* Cramer (Lep.: Saturniidae) (Ghahari *et al.* 2010c).

***Apanteles agilla* Nixon, 1972**

General distribution: Palaearctic.

Distribution in Iran: East Azarbaijan (Ghahari *et al.* 2011d, reported as *Dolichogenidea agilla*).

***Apanteles appellator* Telenga, 1949**

General distribution: Afrotropical, Oceanic and Palaearctic.

Distribution in Iran: Isfahan (Kazemzadeh *et al.* 2014, reported as *Dolichogenidea appellator*).

Host: *Plutella xylostella* (L.) (Lep.: Plutellidae) (Kazemzadeh *et al.* 2014).

***Apanteles biroicus* Papp, 1973**

General distribution: Western Palaearctic.

Distribution in Iran: Sistan & Baluchestan (Khajeh *et al.* 2014c, reported as *Illidops biroicus*).

***Apanteles brunnistigma* Abdinbekova, 1969**

General distribution: Palaearctic.

Distribution in Iran: East Azarbaijan (Gadallah *et al.* 2015b).

***Apanteles candidatus* (Haliday, 1834)**

General distribution: Palaearctic.

Distribution in Iran: Ilam (Ghahari *et al.* 2011a, reported as *Dolichogenidea candidate*), Lorestan (Ghahari *et al.* 2012a, reported as *Dolichogenidea candidate*).

***Apanteles carpatus* (Say, 1836)**

General distribution: Afrotropical, Australasian, Nearctic, Neotropical, Oceanic, Oriental and Palaearctic.

Distribution in Iran: Mazandaran (Ghahari *et al.* 2010a), Isfahan (Ghahari *et al.* 2011c), Sistan & Baluchestan (Samin 2015).

***Apanteles corvinus* Reinhard, 1880**

General distribution: Nearctic and Palaearctic.

Distribution in Iran: Ilam (Ghahari *et al.* 2011a), West Azarbaijan (Žikić *et al.* 2014).

Host: *Leucoptera malifoliella* (O. Costa) (Lep.: Lyonetiidae) (Žikić *et al.* 2014).

***Apanteles cytherea* Nixon, 1972**

General distribution: Palaearctic.

Distribution in Iran: Golestan (Ghahari and Fischer 2011c, reported as *Dolichogenidea cytherea*).

***Apanteles decorus* (Haliday, 1834)**

General distribution: Palaearctic.

Distribution in Iran: Qazvin (Ghahari *et al.* 2011b, reported as *Dolichogenidea decora*).

***Apanteles emarginatus* (Nees, 1834)**

General distribution: Palaearctic.

Distribution in Iran: Ardabil (Ghahari *et al.* 2009d).

***Apanteles flavostriatus* Papp, 1977**

General distribution: Western Palaearctic.

Distribution in Iran: Sistan & Baluchestan (Khajeh *et al.* 2014c, reported as *Dolichogenidea flavostriata* (Papp, 1977)).

***Apanteles galleriae* Wilkinson, 1932**

General distribution: Nearctic, Neotropical, Oceanic, Oriental and Palaearctic.

Distribution in Iran: Guilan (Goldansaz *et al.* 1996), Khorasan Razavi, Golestan (Ghahari *et al.* 2011d).

Host: *Achroia grisella* (Fabricius) (Lep.: Pyralidae) (Goldansaz *et al.* 1996).

***Apanteles halidayi* Marshall, 1872**

General distribution: Palaearctic.

Distribution in Iran: Isfahan (Ghahari *et al.* 2011c, reported as *Dolichogenidea halidayi*).

***Apanteles hemara* Nixon, 1965**

General distribution: Afrotropical, Australasian, Oceanic, Oriental and Palaearctic.

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

***Apanteles ingenuoides* Papp, 1971**

General distribution: Palaearctic.

Distribution in Iran: Kordestan (Gadallah *et al.* 2015b).

***Apanteles iranicus* Telenga, 1955**

General distribution: Iran, Kazakhstan and Mongolia.

Distribution in Iran: Kerman, Sistan & Baluchestan (Telenga 1955, reported as *Dolichogenidea iranica*).

***Apanteles isus* Nixon, 1965**

General distribution: Palaearctic.

Distribution in Iran: Sistan & Baluchestan (Khajeh *et al.* 2014c, reported as *Iconella isus* Nixon, 1965).

***Apanteles lacticolor* Viereck, 1911**

General distribution: Nearctic, Oriental and Palaearctic.

Distribution in Iran: Guilan (Bandar Anzali) (Herard *et al.* 1979).

Host: *Lymantria dispar* (L.) (Lep.: Lymantriidae) (Herard *et al.* 1979).

***Apanteles lacteus* (Nees, 1834)**

General distribution: Palaearctic.

Distribution in Iran: No specific locality cited (Telenga 1955).

***Apanteles laspeyresiella* Papp, 1972**

General distribution: Palaearctic.

Distribution in Iran: Qom (Norouzi *et al.* 2009).

Host: *Ectomyelois ceratoniae* (Zeller) (Lep.: Pyralidae) (Norouzi *et al.* 2009).

***Apanteles longipalpis* Reinhard, 1880**

General distribution: Palaearctic.

Distribution in Iran: Lorestan (Pirhadi *et al.* 2008).

Host: *Syringopais temperatella* Lederer (Lep.: Gelechiidae) (Pirhadi *et al.* 2008).

***Apanteles metacarpalis* (Thomson, 1895)**

General distribution: Palaearctic.

Distribution in Iran: Ilam (Ghahari *et al.* 2011a), Guilan (Ghahari *et al.* 2012c).

***Apanteles myeloenta* Wilkinson, 1937**

General distribution: Palaearctic.

Distribution in Iran: Markazi (Saveh), Tehran (Varamin) (Kishani Farahani *et al.* 2008), Kerman (Mehrnejad 2010, reported as *Iconella myeloenta*), Qazvin (Ghahari *et al.* 2011b), Qom (Kishani Farahani *et al.* 2008, 2012, 2013), Isfahan (Nobakht *et al.* 2015).

Hosts: *Arimania komaroffi* Ragonot (Lep.: Pyralidae) (Mehrnejad 2010) and *Ectomyelois ceratoniae* (Zeller) (Lep.: Pyralidae) (Kishani Farahani *et al.* 2008, 2012, 2013; Nobakht *et al.* 2015).

***Apanteles nagyi* Papp, 1975**

General distribution: Iran and Romania.

Distribution in Iran: Sistan & Baluchestan (Khajeh *et al.* 2014c, reported as *Iconella nagyi*).

***Apanteles naso* Marshall, 1885**

General distribution: Palaearctic.

Distribution in Iran: Isfahan (Ghahari *et al.* 2011c, reported as *Illidops naso*), West

Azərbaycan (Rastegar *et al.* 2012, reported as *Illidops naso*).

***Apanteles obscurus* (Nees, 1834)**

General distribution: Palaearctic.

Distribution in Iran: Fars (Lashkari Bod *et al.* 2011a), West Azarbaijan (Samin *et al.* 2014), Sistan & Baluchestan (Khajeh *et al.* 2014c).

***Apanteles pilosus* Telenga, 1955**

General distribution: Palaearctic.

Distribution in Iran: Sistan & Baluchestan (Khajeh *et al.* 2014c, reported as *Illidops pilosus*).

***Apanteles scutellaris* Muesebeck, 1921**

General distribution: Nearctic, Neotropical, Oceanic and Palaearctic.

Distribution in Iran: West Azarbaijan (Ghahari and Fischer 2011a), Ilam (Ghahari *et al.* 2011a, reported as *Illidops scutellaris*), Khuzestan (Samin *et al.* 2015b).

***Apanteles seriphia* Nixon, 1972**

General distribution: Palaearctic.

Distribution in Iran: Golestan (Ghahari and Fischer 2011c, reported as *Dolichogenidea seriphia*).

***Apanteles sicarius* Marshall, 1885**

General distribution: Oceanic and Palaearctic.

Distribution in Iran: Ilam (Ghahari *et al.* 2011a, reported as *Dolichogenidea sicaria*).

***Apanteles sodalis* (Haliday, 1834)**

General distribution: Nearctic, Oceanic, Oriental and Palaearctic.

Distribution in Iran: Kermanshah (Ghahari and Fischer 2012, reported as *Apanteles ater* (Ratzeburg, 1852)).

***Apanteles subcamilla* Tobias, 1976**

General distribution: Azerbaijan and Iran.

Distribution in Iran: Sistan & Baluchestan (Khajeh *et al.* 2014c, reported as *Iconella subcamilla*).

***Apanteles suevus* Reinhard, 1880**

General distribution: Palaearctic.

Distribution in Iran: Golestan (Ghahari and Fischer 2011c).

***Apanteles xanthostigma* (Haliday, 1834)**

General distribution: Afrotropical and Palaearctic.

Distribution in Iran: No specific locality cited (Esmaili 1983, reported as *Apanteles Xanthostigma anarisae*).

Host: *Anarsia lineatella* Zeller (Lep.: Gelechiidae) (Esmaili 1983).

***Apanteles (Choeras) dorsalis* (Spinola, 1808)**

General distribution: Palaearctic.

Distribution in Iran: Ardabil (Ghahari *et al.* 2011d, reported as *Choeras dorsalis*).

***Apanteles (Choeras) tedellae* Nixon, 1961**

General distribution: Palaearctic.

Distribution in Iran: Golestan (Ghahari and Fischer 2011c).

***Apanteles (Choeras) tiro* (Reinhard, 1880)**

General distribution: Nearctic and Palaearctic.

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

***Pholetesor circumscriptus* (Nees, 1834)**

General distribution: Nearctic, Oceanic and Palaearctic.

Distribution in Iran: Markazi (Radjabi 1986, reported as *Apanteles circumscriptus*), Alborz (Shojai 1989, reported as *Apanteles lautellus*), Isfahan (Ghahari *et al.* 2010b, reported as *Apanteles circumscriptus*), West Azarbaijan (Samin *et al.* 2014), Fars (Samin *et al.* 2015b, reported as *Apanteles circumscriptus*).

Hosts: *Phyllonorycter corylifoliella* (Hübner) (Lep.: Gracillariidae) (Radjabi 1986), *Phyllonorycter platani* (Staudinger) (Lep.: Gracillariidae) (Shojai 1989) and *Phyllonorycter blancardella* (Fabricius) (Lep.: Gracillariidae) (Ghahari *et al.* 2010b).

***Pholetesor pedias* (Nixon, 1973)**

General distribution: Nearctic, Oceanic and Palaearctic.

Distribution in Iran: Markazi (Radjabi 1986, reported as *Apanteles bicolor*), Ilam (Ghahari *et al.* 2011a, reported as *Pholetesor bicolor*).

Host: *Phyllonorycter corylifoliella* (Hübner) (Lep.: Gracillariidae) (Radjabi 1986)

***Pholetesor viminetorum* (Wesmael, 1837)**

General distribution: Nearctic and Palaearctic.

Distribution in Iran: Golestan (Telenga 1955).

**Tribe Cotesiini Mason, 1981*****Cotesia abjecta* (Marshall, 1885)**

General distribution: Palaearctic.

Distribution in Iran: Lorestan (Ghahari *et al.* 2012a, reported as *Cotesia abjectus*).

***Cotesia ancilla* (Nixon, 1974)**

General distribution: Palaearctic.

Distribution in Iran: Isfahan (Ghahari *et al.* 2011c), Kermanshah (Ghahari and Fischer 2012).

***Cotesia callimone* (Nixon, 1974)**

General distribution: Palaearctic.

Distribution in Iran: Semnan (Naderain *et al.* 2012), Lorestan (Ghahari *et al.* 2012a), Mazandaran (Sakenin *et al.* 2012).

***Cotesia chilonis* (Munakata, 1910)**

General distribution: Oriental and Palaearctic.

Distribution in Iran: Guilan, Mazandaran (Rassipour 1983, reported as *Apanteles chilonis*).

Host: *Chilo suppressalis* Walker (Lep.: Crambidae) (Rassipour 1983).

***Cotesia cuprea* (Lyle, 1925)**

General distribution: Palaearctic.

Distribution in Iran: Lorestan (Ghahari *et al.* 2012a, reported as *Cotesia cupreus*), West Azarbaijan (Samin *et al.* 2014).

***Cotesia euryale* (Nixon, 1974)**

General distribution: Palaearctic.

Distribution in Iran: Ilam (Ghahari *et al.* 2011a).

***Cotesia flavipes* Cameron, 1891**

General distribution: Afrotropical, Australasian, Nearctic, Neotropical, Oceanic, Oriental and Palaearctic.

Distribution in Iran: Mazandaran (Ghahari *et al.* 2009e).

Host: *Chilo suppressalis* Walker (Lep.: Crambidae) (Ghahari *et al.* 2009e).



***Cotesia geryonis* (Marshall, 1885)**

General distribution: Palaearctic.

Distribution in Iran: Kermanshah (Ghahari and Fischer 2012).

***Cotesia glomerata* (Linnaeus, 1758)**

General distribution: Australasian, Nearctic, Neotropical, Oceanic, Oriental and Palaearctic.

Distribution in Iran: Tehran, Mazandaran (Farahbakhsh 1961; Shojai 1968, 1989; Davatchi and Shojai 1969; Radjabi 1986, reported as *Apanteles glomeratus*; Modarres Awal 1997, reported as *Apanteles (=Microgaster) glomeratus*; Hasanshahi *et al.* 2014), Guilan (Ghahari *et al.* 2010c), West Azarbaijan (Alizadeh and Javan Moghaddam 2004; Razmi *et al.* 2011; Mirfakhraie and Dey 2013), Fars (Lashkari Bod *et al.* 2011a).

Hosts: *Agrotis segetum* (Denis & Schiffermüller) (Lep.: Noctuidae) (Alizadeh and Javan Moghaddam 2004), *Antheraea assama* Westwood (Lep.: Saturniidae) (Ghahari *et al.* 2010c), *Acronicta* sp. (Lep.: Noctuidae), *Aporia crataegi* (L.) (Lep.: Pieridae) (Radjabi 1986), *Pieris brassicae* (L.), *P. rapae* (L.) (Lep.: Pieridae) (Modarres Awal 1997; Mirfakhraie and Dey 2013; Hasanshahi *et al.* 2014).

***Cotesia hyphantriae* (Riley, 1887)**

General distribution: Nearctic, Neotropical and Palaearctic.

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

***Cotesia jucunda* (Marshall, 1885)**

General distribution: Palaearctic.

Distribution in Iran: Markazi (Ghahari *et al.* 2011d), Guilan (Ghahari *et al.* 2012c).

***Cotesia kazak* (Telenga, 1949)**

General distribution: Australasian, Oceanic, Oriental and Palaearctic.

Distribution in Iran: Tehran (Varamin) (Shojai 1968, reported as *Apanteles Kazak*), Golestan (Ghadiri Rad and Ebrahimi 2010).

Hosts: *Helicoverpa armigera* (Hübner) (Lep.: Noctuidae) (Ghadiri Rad and Ebrahimi

2010), *Heliothis virescens* (Hufnagel) (Lep.: Noctuidae) (Shojai 1968).

***Cotesia melanoscela* (Ratzeburg, 1844)**

General distribution: Nearctic, Oriental and Palaearctic.

Distribution in Iran: Guilan, Mazandaran (Herard *et al.* 1979, reported as *Apanteles melanoscelus*; Radjabi 1986), East Azarbaijan (Ghahari *et al.* 2010c).

Hosts: *Hemileuca maia* Drury (Lep.: Saturniidae) (Ghahari *et al.* 2010c), *Lymantria dispar* (L.) (Lep.: Saturniidae) (Herard *et al.* 1979).

***Cotesia notha* (Marshall, 1885)**

General distribution: Palaearctic.

Distribution in Iran: Golestan (Ghahari and Fischer 2011c), Lorestan (Ghahari *et al.* 2012a, reported as *Cotesia nothus*).

***Cotesia ofella* (Nixon, 1974)**

General distribution: Palaearctic.

Distribution in Iran: West Azarbaijan (Karimpour *et al.* 2001), Mazandaran (Ghahari *et al.* 2010a).

Host: *Simyra dentinosa* Freyer (Lep.: Noctuidae) (Karimpour *et al.* 2001).

***Cotesia ordinaria* (Ratzeburg, 1844)**

General distribution: Oriental and Palaearctic.

Distribution in Iran: Lorestan (Ghahari *et al.* 2012a, reported as *Cotesia ordinarius*), Golestan (Sakenin *et al.* 2012, reported as *Cotesia ordinarius*).

***Cotesia praepotens* (Haliday, 1834)**

General distribution: Palaearctic.

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

***Cotesia risilis* (Nixon, 1974)**

General distribution: Palaearctic.

Distribution in Iran: West Azarbaijan (Ghahari and Fischer 2011a; Samin 2015), Ilam (Ghahari *et al.* 2011a).

***Cotesia rubecula* (Marshall, 1885)**

General distribution: Nearctic, Oceanic, Oriental and Palaearctic.

Distribution in Iran: Khuzestan (Siahpoush *et al.* 1993).

Host: *Mythimna loreyi* (Duponchel) (Lep.: Noctuidae) (Siahpoush *et al.* 1993).

***Cotesia ruficrus* (Haliday, 1834)**

General distribution: Afrotropical, Australasian, Neotropical, Oceanic, Oriental and Palaearctic.

Distribution in Iran: Khuzestan (Siahpoush *et al.* 1993), Golestan (Daniali 1993), Mazandaran (Abbasipour *et al.* 2004, reported as *Cotesia ruficrus*), Fars (Lashkari Bod *et al.* 2011a), Sistan & Baluchestan (Khajeh *et al.* 2014c).

Hosts: *Mythimna loreyi* (Duponchel) (Lep.: Noctuidae) (Siahpoush *et al.* 1993), *Mythimna unipuncta* (Haworth) (Lep.: Noctuidae) (Abbasipour *et al.* 2004).

***Cotesia salebrosa* (Marshall, 1885)**

General distribution: Palaearctic.

Distribution in Iran: Kermanshah (Ghahari and Fischer 2012).

***Cotesia saltator* (Thunberg, 1822)**

General distribution: Palaearctic.

Distribution in Iran: No specific locality cited (Papp 1987), Sistan & Baluchestan (Khajeh *et al.* 2014c).

***Cotesia scabricula* (Reinhard, 1880)**

General distribution: Oriental and Palaearctic.

Distribution in Iran: Guilan (Ghahari *et al.* 2012c).

***Cotesia sessilis* (Geoffroy, 1785)**

General distribution: Palaearctic.

Distribution in Iran: Alborz (Shojai 1968, 1989; as *Apanteles juniperatus*; Davatchi and Shojai 1969), Mazandaran (Ghahari *et al.* 2010c, reported as *Cotesia juniperatae* (Bouché, 1834)), Ardabil (Ghahari *et al.* 2011d, reported as *Cotesia tetrica*).

Hosts: *Lampides boeticus* (L.) (Lep.: Lycaenidae) (Shojai 1968, 1989) and *Saturnia pavonia* (L.) (Lep.: Saturniidae) (Ghahari *et al.* 2010c).

***Cotesia setebis* (Nixon, 1974)**

General distribution: Palaearctic.

Distribution in Iran: Golestan (Ghahari *et al.* 2011d).

***Cotesia specularis* (Szépligeti, 1896)**

General distribution: Palaearctic.

Distribution in Iran: No specific locality cited (Papp 1986, reported as *Apanteles specularis*), Qazvin (Ghahari *et al.* 2011b).

***Cotesia spuria* (Wesmael, 1837)**

General distribution: Palaearctic.

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

***Cotesia telengai* (Tobias, 1972)**

General distribution: Palaearctic.

Distribution in Iran: Ilam (Ghahari *et al.* 2011a).

***Cotesia tenebrosa* (Wesmael, 1837)**

General distribution: Palaearctic.

Distribution in Iran: Lorestan (Ghahari *et al.* 2012a).

***Cotesia tibialis* (Curtis, 1830)**

General distribution: Palaearctic.

Distribution in Iran: No specific locality cited (Aubert 1966), Alborz (Shojai 1968, 1980, reported as *Apanteles congestus*; Davatchi and Shojai 1969), Golestan, Mazandaran (Ghahari *et al.* 2011d).

Host: *Agrotis segetum* (Denis & Schiffermüller) (Lep.: Noctuidae) (Shojai 1968, 1980).

***Cotesia vanessae* (Reinhard, 1880)**

General distribution: Afrotropical and Palaearctic.

Distribution in Iran: West Azarbaijan (Karimpour *et al.* 2001; Samin *et al.* 2014), Mazandaran (Ghahari *et al.* 2010a), Sistan & Baluchestan (Khajeh *et al.* 2014c).

Host: *Simyra dentinosa* Freyer (Lep.: Noctuidae) (Karimpour *et al.* 2001).

***Cotesia vestalis* (Haliday, 1834)**

General distribution: Oceanic, Oriental and Palaearctic.

Distribution in Iran: West Azarbaijan (Karimpour *et al.* 2005, reported as *Cotesia plutellae* (Kurdjumov, 1912)), Alborz (Golizadeh *et al.* 2008, reported as *Cotesia plutellae*; Ghahari *et al.* 2012b, reported as *Cotesia plutellae*), Isfahan (Afiunizadeh

Isfahani and Karimzadeh Isfahani 2010, reported as *Cotesia plutellae*; Ghahari *et al.* 2011c, reported as *Cotesia plutellae*; Rezaei *et al.* 2014), East Azarbaijan (Rastegar *et al.* 2012, reported as *Cotesia plutellae*; Ghahari *et al.* 2012b), Guilan (Ghahari *et al.* 2012c), Tehran (Hasanshahi *et al.* 2015).

Hosts: *Pieis rapae* (L.) (Lep.: Pieridae) (Hasanshahi *et al.* 2015), *Plutella xylostella* (L.) (Lep.: Plutellidae) (Golizadeh *et al.* 2008; Afiunizadeh Isfahani and Karimzadeh Isfahani 2010; Ghahari *et al.* 2012b; Rezaei *et al.* 2014; Hasanshahi *et al.* 2015), *Simyra dentinosa* Freyer (Lep.: Noctuidae) (Karimpour *et al.* 2005).

***Cotesia villana* (Reinhard, 1880)**

General distribution: Palaearctic.

Distribution in Iran: Qazvin (Ghahari *et al.* 2011b, reported as *Cotesia villanus*).

***Cotesia zygaenarum* (Marshall, 1885)**

General distribution: Oriental and Palaearctic.

Distribution in Iran: Mazandaran (Ghahari *et al.* 2010a), Ilam (Ghahari *et al.* 2011a), Golestan (Samin *et al.* 2015a).

***Deuterixys rimulosa* (Niezabitowski, 1910)**

General distribution: Palaearctic.

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

***Diolcogaster alvearia* (Fabricius, 1798)**

General distribution: Palaearctic.

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

***Diolcogaster claritibia* (Papp, 1959)**

General distribution: Palaearctic.

Distribution in Iran: Golestan (Ghahari and Fischer 2011c).

***Diolcogaster mayae* (Shestakov, 1932)**

General distribution: Palaearctic.

Distribution in Iran: No specific locality cited (Telenga 1955; Tobias 1976; 1986), Sistan & Baluchestan (Hedwig 1957, reported as *Microgaster iranensis*), Fars (Al-e-Mansour and Mostafavi 1993).

***Diolcogaster spreta* (Marshall, 1885)**

General distribution: Palaearctic.

Distribution in Iran: East Azarbaijan (Ghahari and Fischer 2011a), Zanjan (Samin 2015).

***Protapanteles (Protapanteles) immunis* (Haliday, 1834)**

General distribution: Nearctic and Palaearctic.

Distribution in Iran: West Azarbaijan (Ghahari *et al.* 2010c).

Hosts: *Saturnia pavonia* (L.) (Lep.: Saturniidae), *Orgyia antiqua* (L.) (Lep.: Lymantriidae) (Ghahari *et al.* 2010c).

***Protapanteles (Protapanteles) liparidis* (Bouché, 1834)**

General distribution: Oriental and Palaearctic.

Distribution in Iran: Guilan (Bandar Anzali) (Herard *et al.* 1979, reported as *Apanteles liparidis*; Radjabi 1986), West Azarbaijan (Žikic *et al.* 2014, reported as *Apanteles liparidis*).

Host: *Phyllonorycter populifoliella* (Treitschke) (Lep.: Gracillariidae) (Žikic *et al.* 2014).

***Protapanteles (Protapanteles) mygdonia* (Nixon, 1973)**

General distribution: Palaearctic.

Distribution in Iran: East Azarbaijan (Ghahari *et al.* 2009b, reported as *Glyptapanteles mygdoniae*), Golestan (Samin *et al.* 2015).

***Protapanteles (Protapanteles) porthetriae* (Muesebeck, 1928)**

General distribution: Oriental and Palaearctic.

Distribution in Iran: Markazi (Ghahari *et al.* 2011d, reported as *Glyptapanteles porthetriae*).

***Protapanteles (Protapanteles) vitripennis* (Curtis, 1830)**

General distribution: Oriental and Palaearctic.

Distribution in Iran: West Azarbaijan (Samin *et al.* 2014).

**Tribe Microgastrini Förster, 1862**

***Microgaster australis* Thomson, 1895**

General distribution: Palaearctic.

Distribution in Iran: No specific locality cited (Tobias 1986), Fars (Lashkari Bod *et al.* 2011a).

***Microgaster globata* (Linnaeus, 1758)**

General distribution: Palaearctic.  
Distribution in Iran: East Azarbaijan (Telenga 1955), Isfahan (Ghahari *et al.* 2011c).

***Microgaster luctuosa* Haliday, 1834**

General distribution: Palaearctic.  
Distribution in Iran: West Azarbaijan (Samin *et al.* 2014).

***Microgaster parvistriga* Thomson, 1895**

General distribution: Palaearctic.  
Distribution in Iran: Guilan (Ghahari *et al.* 2012c), West Azarbaijan (Samin *et al.* 2014).

***Microgaster rufipes* Nees, 1834**

General distribution: Palaearctic.  
Distribution in Iran: No specific locality cited (Nees 1834), Guilan (Ghahari *et al.* 2010a).

**Tribe Microplitini Mason, 1981*****Microplitis aduncus* (Ruthe, 1860)**

General distribution: Palaearctic.  
Distribution in Iran: No specific locality cited (Papp 1984, reported as *Microgaster adunca*).

***Microplitis decipiens* Prell, 1925**

General distribution: Palaearctic.  
Distribution in Iran: East Azarbaijan (Gadallah *et al.* 2015b).

***Microplitis deprimator* (Fabricius, 1798)**

General distribution: Palaearctic.  
Distribution in Iran: No specific locality cited (Nixon 1968, reported as *Microgaster deprimator*).

***Microplitis fulvicornis* (Wesmael, 1837)**

General distribution: Palaearctic.  
Distribution in Iran: Khorasan Razavi (Karimi-Malati *et al.* 2014).  
Host: *Spodoptera exigua* (Hübner) (Lep.: Noctuidae) (Karimi-Malati *et al.* 2014).

***Microplitis marshallii* Kokujev, 1898**

General distribution: Oriental and Palaearctic.  
Distribution in Iran: Ardabil (Gadallah *et al.* 2015b).

***Microplitis ochraceus* Szépligeti, 1896**

General distribution: Palaearctic.  
Distribution in Iran: Ardabil (Telenga 1955), no specific locality cited (Papp 1984; Tobias 1986), Golestan (Ghahari *et al.* 2011d), Alborz, Tehran (Farahani *et al.* 2014g).

***Microplitis rufiventris* Kokujev, 1914**

General distribution: Oriental and Palaearctic.  
Distribution in Iran: Alborz, Tehran (Farahani *et al.* 2014g), Qazvin (field research).  
Remarks: *Spodoptera exigua* (Hübner, 1808) (Lep.: Noctuidae) (field research).

***Microplitis scrophulariae* Szépligeti, 1898**

General distribution: Palaearctic.  
Distribution in Iran: No specific locality cited (Tobias 1976), Isfahan (Ghahari *et al.* 2011c).

***Microplitis spectabilis* (Haliday, 1834)**

General distribution: Oriental and Palaearctic.  
Distribution in Iran: Isfahan (Ghahari *et al.* 2011c), East Azarbaijan (Rastegar *et al.* 2012).

***Microplitis spinolae* (Nees, 1834)**

General distribution: Palaearctic.  
Distribution in Iran: No specific locality cited (Nixon 1970).

***Microplitis tuberculifer* (Wesmael, 1837)**

General distribution: Oriental and Palaearctic.  
Distribution in Iran: Ilam (Ghahari *et al.* 2011a).

***Microplitis viduus* (Ruthe, 1860)**

General distribution: Palaearctic.  
Distribution in Iran: Qazvin (Ghahari *et al.* 2011b, reported as *Microplitis vidua*).

**Subfamily Microtypinae Szépligeti, 1908*****Microtypus desertorum* Shestakov, 1932**

General distribution: Palaearctic.  
Distribution in Iran: Sistan & Baluchestan (Hedwig 1957), no specific locality cited (Tobias 1976, 1986), Alborz (Farahani *et al.* 2014e).

***Microtypus wesmaelii* Ratzeburg, 1848**

General distribution: Nearctic and Palaearctic.

Distribution in Iran: Fars (Al-e-Mansour and Mostafavi 1993), Guilan (Ghahari and Fischer 2011b; Sakenin *et al.* 2012; Farahani *et al.* 2014e), Kuhgiluyeh & Boyerahmad (Samin *et al.* 2015b).

#### **Subfamily Miracinae Viereck, 1918**

##### ***Centistidea (Paracentistidea) pistaciella* van Achterberg & Mehrnejad, 2002**

General distribution: Iran.

Distribution in Iran: Kerman (van Achterberg and Mehrnejad 2002).

Host: *Kermania pistaciella* Amsel (Lep.: Tineidae) (van Achterberg and Mehrnejad 2002).

##### ***Mirax caspiana* Farahani, Talebi, van Achterberg & Rakhshani, 2014**

General distribution: Iran.

Distribution in Iran: Guilan, Mazandaran (Farahani *et al.* 2014f).

##### ***Mirax rufilabris* Haliday, 1833**

General distribution: Palaearctic.

Distribution in Iran: Isfahan (Ghahari *et al.* 2011c, reported as *Mirax dryochares* Marshall, 1898).

#### **Subfamily Opiinae Blanchard, 1845**

##### **Tribe Biosterini Fischer, 1970**

##### ***Biosteres (Biosteres) carbonarius* (Nees, 1834)**

General distribution: Nearctic and Palaearctic.

Distribution in Iran: Lorestan (Ghahari *et al.* 2012a).

##### ***Biosteres (Biosteres) longicauda* (Thomson, 1895)**

General distribution: Palaearctic.

Distribution in Iran: Khorasan Razavi (Samin *et al.* 2011), North Khorasan (Samin 2015).

##### ***Biosteres (Biosteres) remigii* Fischer, 1971**

General distribution: Palaearctic.

Distribution in Iran: Guilan (Gadallah *et al.* 2016a).

##### ***Biosteres (Biosteres) spinaciae* (Thomson, 1895)**

General distribution: Nearctic and Palaearctic.

Distribution in Iran: Kermanshah (Ghahari and Fischer 2012).

##### ***Biosteres (Chilotrichia) arenarius* (Stelfox, 1959)**

General distribution: Palaearctic.

Distribution in Iran: Lorestan (Ghahari *et al.* 2012a).

##### ***Biosteres (Chilotrichia) blandus* (Haliday, 1837)**

General distribution: Palaearctic.

Distribution in Iran: Kermanshah (Ghahari and Fischer 2012).

##### ***Biosteres (Chilotrichia) brevipalpis* (Thomson, 1895)**

General distribution: Palaearctic.

Distribution in Iran: Guilan (Ghahari *et al.* 2012c).

##### ***Biosteres (Chilotrichia) haemorrhoeus* (Haliday, 1837)**

General distribution: Nearctic and Palaearctic.

Distribution in Iran: Guilan (Ghahari *et al.* 2012c), West Azarbaijan (Rastegar *et al.* 2012).

Remarks: Khajeh *et al.* (2014b) had erroneously recorded from East Azarbaijan province with reference to Rastegar *et al.* (2012).

##### ***Biosteres (Chilotrichia) punctiscuta* (Thomson, 1895)**

General distribution: Palaearctic.

Distribution in Iran: Kordestan (Gadallah *et al.* 2016a).

##### ***Biosteres (Chilotrichia) rusticus* (Haliday, 1837)**

General distribution: Palaearctic.

Distribution in Iran: Lorestan (Ghahari *et al.* 2012a).

Remarks: Khajeh *et al.* (2014b) had erroneously recorded from Guilan province with reference to Ghahari *et al.* (2012a).

##### ***Biosteres (Chilotrichia) wesmaelii* (Haliday, 1837)**

General distribution: Palaearctic.

Distribution in Iran: Kermanshah (Ghahari and Fischer 2012, reported as *Biosteres ultor* (Förster 1862)).

**Tribe Opiini Blanchard, 1845*****Atormus victus* (Haliday, 1837)**

General distribution: Palaearctic.

Distribution in Iran: Kermanshah (Ghahari and Fischer 2012).

***Eurytenes (Eurytenes) abnormis* (Wesmael, 1835)**

General distribution: Nearctic and Palaearctic.

Distribution in Iran: West Azarbaijan (Gadallah *et al.* 2016a).

***Eurytenes (Jucundopius) campanariae* (Fischer, 1959)**

General distribution: Palaearctic.

Distribution in Iran: Semnan (Ghahari *et al.* 2011d).

***Eurytenes (Stigmatopoea) macrocerus* (Thomson, 1895)**

General distribution: Nearctic and Palaearctic.

Distribution in Iran: Lorestan (Ghahari *et al.* 2012a, reported as *Opius (Xynobius) macrocerus*), Guilan (Sakenin *et al.* 2012, repoted as *Opius (Xynobius) macrocerus*).

***Eurytenes (Xynobiotenes) scutellatus* (Fischer, 1962)**

General distribution: Palaearctic.

Distribution in Iran: Tehran (Fischer 1990), Fars (Lashkari Bod *et al.* 2011a).

***Fopius carpomyiae* (Silvestri, 1916)**

General distribution: Oriental, Iran

Distribution in Iran: Bushehr (Farrar and Chou 2000; Farrar *et al.* 2004, 2009, 2012).

Host: *Carpomya vesuviana* Costa (Dip.: Tephritidae) (Farrar and Chou 2000; Farrar *et al.* 2004, 2009, 2012).

Remarks: This species introduced to Iran.

***Indiopijs cretensis* Fischer, 1983**

General distribution: Oceanic and Palaearctic.

Distribution in Iran: Sistan & Bluchestan (Peris-Felipo *et al.* 2014).

***Opiognathus propodealis* (Fischer, 1958)**

General distribution: Palaearctic.

Distribution in Iran: Kermanshah (Ghahari and Fischer 2012; Gadallah *et al.* 2016a,

reported as *Opius (Opiognathus) propodealis*; Gadallah *et al.* 2016a).

***Opius (Agnopius) novosimilis* Fischer, 1989**

General distribution: Iran and Slovakia.

Distribution in Iran: Hormozgan (Ameri *et al.* 2014d).

***Opius (Agnopius) nowakowskii* Fischer, 1959**

General distribution: Palaearctic.

Distribution in Iran: Hormozgan (Ameri *et al.* 2014d).

***Opius (Agnopius) rex* Fischer, 1958**

General distribution: Palaearctic.

Distribution in Iran: Mazandaran (Ghahari *et al.* 2011d), Ardabil (Ghahari and Fischer 2011b).

***Opius (Agnopius) similis* Szépligeti, 1898**

General distribution: Palaearctic.

Distribution in Iran: Lorestan (Ghahari *et al.* 2012a), Golestan (Sakenin *et al.* 2012).

***Opius (Agnopius) tirolensis* Fischer, 1958**

General distribution: Palaearctic.

Distribution in Iran: Guilan (Ghahari *et al.* 2012c), Hormozgan (Ameri *et al.* 2014d).

***Opius (Allophlebus) singularis* Wesmael, 1835**

General distribution: Palaearctic.

Distribution in Iran: Guilan (Ghahari *et al.* 2012c).

***Opius (Allophlebus) tabificus* Papp, 1979**

General distribution: Palaearctic.

Distribution in Iran: Sistan & Baluchestan (Khajeh *et al.* 2014b), Hormozgan (Ameri *et al.* 2014d).

***Opius (Allotypus) damnosus* Papp, 1980**

General distribution: Iran, Korea and Russia.

Distribution in Iran: Hormozgan (Ameri *et al.* 2014d).

***Opius (Allotypus) irregularis* Wesmael, 1835**

General distribution: Nearctic and Palaearctic.

Distribution in Iran: Lorestan (Ghahari *et al.* 2012a).

***Opius (Allotypus) tuberculatus* Fischer, 1959**

General distribution: Palaearctic.

Distribution in Iran: Khorasan Razavi (Ghahari *et al.* 2011d).

***Opius (Apodesmia) aethiops* Haliday, 1837**

General distribution: Palaearctic.

Distribution in Iran: Guilan (Ghahari *et al.* 2012c), Ardabil (Rastegar *et al.* 2012).

***Opius (Apodesmia) karesuandensis* Fischer, 1964**

General distribution: Nearctic and Palaearctic.

Distribution in Iran: Kermanshah (Ghahari and Fischer 2012).

***Opius (Apodesmia) sharynensis* (Fischer, 2001)**

General distribution: Iran and Kazakhstan.

Distribution in Iran: Alborz (Fischer 2001).

***Opius (Cryptognathopus) uttoisimilis* Fischer, 1999**

General distribution: Palaearctic.

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

***Opius (Cryptonastes) pygmaeus* Fischer, 1962**

General distribution: Palaearctic.

Distribution in Iran: Fars (Lashkari Bod *et al.* 2010, 2011a), Lorestan (Ghahari *et al.* 2012a).

***Opius (Cryptonastes) tersus* (Förster, 1862)**

General distribution: Palaearctic.

Distribution in Iran: Guilan (Ghahari *et al.* 2012c).

***Opius (Gastrosema) caucasi* Tobias, 1986**

General distribution: Palaearctic.

Distribution in Iran: Guilan (Ghahari *et al.* 2012c), East Azarbaijan (Rastegar *et al.* 2012), Hormozgan (Ameri *et al.* 2014d).

***Opius (Gastrosema) pumilio* Wesmael, 1835**

General distribution: Palaearctic.

Distribution in Iran: Fars (Lashkari Bod *et al.* 2010, 2011a).

***Opius (Hypocynodus) arundinis* Fischer, 1964**

General distribution: Palaearctic.

Distribution in Iran: Kermanshah (Ghahari and Fischer 2012), Sistan & Baluchestan (Khajeh *et al.* 2014b).

***Opius (Hypocynodus) bouceki* Fischer, 1958**

General distribution: Palaearctic.

Distribution in Iran: Sistan & Baluchestan (Khajeh *et al.* 2014b).

***Opius (Hypocynodus) crassipes* Wesmael, 1835**

General distribution: Palaearctic.

Distribution in Iran: Isfahan (Ghahari *et al.* 2011c, reported as *Opius (Phaedrotoma) crassipes*), Guilan (Ghahari *et al.* 2012c).

***Opius (Hypocynodus) flavipes* Szepligeti, 1898**

General distribution: Western Palaearctic.

Distribution in Iran: Hormozgan (Ameri *et al.* 2014d).

***Opius (Hypocynodus) latidens* Fischer, 1990**

General distribution: Western Palaearctic.

Distribution in Iran: Hormozgan (Ameri *et al.* 2014d).

***Opius (Hypocynodus) latipediformis* Fischer, 2004**

General distribution: Denmark and Iran.

Distribution in Iran: Hormozgan (Ameri *et al.* 2014d).

***Opius (Hypocynodus) robustus* Telenga, 1950**

General distribution: Palaearctic.

Distribution in Iran: Fars (Lashkari Bod *et al.* 2010, 2011a).

***Opius (Merotrachys) penetrator* Fischer, 1966**

General distribution: Australia and Iran.

Distribution in Iran: Hormozgan (Ameri *et al.* 2014d).

Remarks: This species may have been introduced to Iran along with agricultural food products (Ameri *et al.* 2014d).

***Opius (Misophthora) basalis* Fischer, 1958**

General distribution: Palaearctic.

Distribution in Iran: Mazandaran (Ghahari and Fischer 2011b; Sakenin *et al.* 2012).

Host: *Agromyza* sp. (Dip.: Agromyzidae) (Sakenin *et al.* 2012).

***Opius (Misophthora) monilicornis* Fischer, 1962**

General distribution: Palaearctic.

Distribution in Iran: West Azarbaijan (Adldoost 1995), Mazandaran (Ghahari *et al.* 2010a; Sakenin *et al.* 2012), Lorestan (Ghahari *et al.* 2012a).

Host: *Liriomyza cicerina* (Rondani) (Dip.: Agromyzidae) (Adlidoost 1995).

***Opius (Misophthora) occulius* Telenga, 1950**

General distribution: Western Palaearctic.  
Distribution in Iran: Tehran (Varamin) (Ghahari *et al.* 2011d).

***Opius (Misophthora) seductus* Fischer, 1959**

General distribution: Palaearctic.  
Distribution in Iran: Isfahan (Ghahari *et al.* 2011c).

***Opius (Misophthora) wachsmanni* Szépligeti, 1898**

General distribution: Palaearctic.  
Distribution in Iran: Lorestan (Ghahari *et al.* 2012a).

***Opius (Nosopoea) ambiguus* Wesmael, 1835**

General distribution: Palaearctic.  
Distribution in Iran: Isfahan (Ghahari *et al.* 2011c).

***Opius (Nosopoea) cingulatus* Wesmael, 1835**

General distribution: Palaearctic.  
Distribution in Iran: Kermanshah (Ghahari and Fischer 2012).

***Opius (Nosopoea) circulator* (Nees, 1834)**

General distribution: Palaearctic.  
Distribution in Iran: Guilan (Ghahari *et al.* 2012c).

***Opius (Nosopoea) maculipes* Wesmael, 1835**

General distribution: Palaearctic.  
Distribution in Iran: Tehran (Fischer 1990), Guilan (Ghahari *et al.* 2012c), East Azarbaijan (Rastegar *et al.* 2012).

***Opius (Nosopoea) teheranensis* Fischer, 1990**

General distribution: Iran.  
Distribution in Iran: Tehran (Fischer 1990).

***Opius (Odontopoea) commivens* Thomson, 1895**

General distribution: Palaearctic.  
Distribution in Iran: Guilan (Ghahari *et al.* 2012c).

***Opius (Opiostomus) riphaeus* Tobias, 1986**

General distribution: Iran and Russia.  
Distribution in Iran: Hormozgan (Ameri *et al.* 2014d).

***Opius (Opiothorax) abditus* Fischer, 1960**

General distribution: Iran and Turkey.  
Distribution in Iran: Lorestan (Ghahari *et al.* 2012a), Golestan (Sakenin *et al.* 2012).

***Opius (Opiothorax) filicornis* Thomson, 1895**

General distribution: Palaearctic.  
Distribution in Iran: Guilan (Ghahari *et al.* 2012c), East Azarbaijan (Rastegar *et al.* 2012), Sistan & Baluchestan (Khajeh *et al.* 2014b).

***Opius (Opiothorax) latistigma* Fischer, 1960**

General distribution: Palaearctic.  
Distribution in Iran: Khorasan Razavi (Ghahari *et al.* 2011d).

***Opius (Opiothorax) levis* Wesmael, 1835**

General distribution: Afrotropical and Palaearctic.  
Distribution in Iran: Fars (Lashkari Bod *et al.* 2010, 2011a), Kermanshah (Ghahari and Fischer 2012), Sistan & Baluchestan (Khajeh *et al.* 2014b).

***Opius (Opiothorax) longicornis* Thomson, 1895**

General distribution: Palaearctic.  
Distribution in Iran: Guilan (Ghahari *et al.* 2012c).  
Remarks: Khajeh *et al.* (2014b) had recorded as *Opius (Pendopius) longicornis* Chen & Weng, 2005 and had erroneously reported general distribution.

***Opius (Opiothorax) lonicerae* Fischer, 1958**

General distribution: Palaearctic.  
Distribution in Iran: Kermanshah (Ghahari and Fischer 2012).

***Opius (Opiothorax) magnicauda* Fischer, 1958**

General distribution: Palaearctic.  
Distribution in Iran: Golestan (Ghahari *et al.* 2011d).

***Opius (Opiothorax) minusculae* Fischer, 1967**

General distribution: Palaearctic.  
Distribution in Iran: Hormozgan (Ameri *et al.* 2014d).

***Opius (Opiothorax) mirabilis* Fischer, 1958**

General distribution: Oriental and Palaearctic.



Distribution in Iran: Kermanshah (Ghahari and Fischer 2012).

***Opius (Opiothorax) nigricoloratus* Fischer, 1958**

General distribution: Palaearctic.

Distribution in Iran: Semnan (Ghahari *et al.* 2010b; Samin 2015), Guilan (Ghahari *et al.* 2012c).

***Opius (Opiothorax) opacus* Fischer, 1968**

General distribution: Palaearctic.

Distribution in Iran: Sistan & Baluchestan (Khajeh *et al.* 2014b).

***Opius (Opiothorax) turcicus* Fischer, 1960**

General distribution: Oriental and Palaearctic.

Distribution in Iran: Markazi (Ghahari *et al.* 2011d).

***Opius (Opius) caricivora* Fischer, 1964**

General distribution: Oriental and Palaearctic.

Distribution in Iran: Sistan & Baluchestan (Khajeh *et al.* 2014b).

***Opius (Opius) curticornis* Fischer, 1960**

General distribution: Western Palaearctic.

Distribution in Iran: Lorestan (Ghahari *et al.* 2012a).

Remarks: Khajeh *et al.* (2014b) had erroneously recorded from Guilan province with reference to Ghahari *et al.* (2012a).

***Opius (Opius) lugens* Haliday, 1837**

General distribution: Afrotropical and Palaearctic.

Distribution in Iran: Kermanshah (Ghahari and Fischer 2012).

***Opius (Opius) pallipes* Wesmael, 1835**

General distribution: Nearctic, Oriental and Palaearctic.

Distribution in Iran: Guilan (Ghahari *et al.* 2012c), Sistan & Baluchestan (Khajeh *et al.* 2014b, reported as *Opius (Opius) exilis* Haliday, 1837).

***Opius (Opius) paraplasticus* Fischer, 1972**

General distribution: Iran and South Africa.

Distribution in Iran: Semnan (Ghahari *et al.* 2010b), Golestan (Samin *et al.* 2015a).

***Opius (Pendopius) bajariae* Fischer, 1989**

General distribution: Western Palaearctic.

Distribution in Iran: Hormozgan (Ameri *et al.* 2014d).

***Opius (Pendopius) pendulus* Haliday, 1837**

General distribution: Nearctic and Palaearctic.

Distribution in Iran: Lorestan (Ghahari *et al.* 2012a), Semnan (Naderian *et al.* 2012), Sistan & Baluchestan (Khajeh *et al.* 2014b), Hormozgan (Ameri *et al.* 2014d).

Remarks: Ameri *et al.* (2014d) had erroneously recorded from Isfahan province with reference to Ghahari *et al.* (2011c).

***Opius (Snoflakopius) snoflaki* Fischer, 1959**

General distribution: Palaearctic.

Distribution in Iran: Kermanshah (Ghahari and Fischer 2012).

***Phaedrotoma biroi* (Fischer, 1960)**

General distribution: Oriental and Palaearctic.

Distribution in Iran: Golestan (Ghahari *et al.* 2011d, reported as *Opius (Phaedrotoma) biroi*), Sistan & Baluchestan (Khajeh *et al.* 2014b).

***Phaedrotoma biroica* (Fischer & Beyarslan, 2005)**

General distribution: Iran and Turkey.

Distribution in Iran: Sistan & Baluchestan (Khajeh *et al.* 2014b).

***Phaedrotoma depeculator* Förster, 1862**

General distribution: Palaearctic.

Distribution in Iran: Kermanshah (Ghahari and Fischer 2012, reported as *Opius (Phaedrotoma) depeculator*).

***Phaedrotoma diversa* (Szépligeti, 1898)**

General distribution: Palaearctic.

Distribution in Iran: Ardabil (Rastegar *et al.* 2012, reported as *Opius (Phaedrotoma) diversa*), Guilan (Ghahari *et al.* 2012c, reported as *Opius (Phaedrotoma) diversa*), Sistan & Baluchestan (Khajeh *et al.* 2014b).

***Phaedrotoma diversiformis* (Fischer, 1960)**

General distribution: Palaearctic.

Distribution in Iran: Lorestan (Ghahari *et al.* 2012a, reported as *Opius (Phaedrotoma) diversiformis*), Golestan (Sakenin *et al.* 2012, reported as *Opius (Phaedrotoma) diversiformis*).

***Phaedrotoma exigua* (Wesmael, 1835)**

General distribution: Afrotropical, Oriental and Palaearctic.

Distribution in Iran: Tehran (Fischer 1990), Lorestan (Ghahari *et al.* 2012a, *Opius* (*Phaedrotoma*) *exiguus*), Sistan & Baluchestan (Khajeh *et al.* 2014b).

***Phaedrotoma mirabunda* (Papp, 1982)**

General distribution: Western Palaearctic.

Distribution in Iran: Sistan & Baluchestan (Khajeh *et al.* 2014b).

***Phaedrotoma pulchriceps* (Szépligeti, 1898)**

General distribution: Nearctic, Oriental and Palaearctic.

Distribution in Iran: Guilan (Ghahari *et al.* 2012c, reported as *Opius* (*Phaedrotoma*) *pulchriventris* (Fischer, 1958)), East Azarbaijan (Rastegar *et al.* 2012, reported as *Opius pulchriceps* Szépligeti, 1898).

Remarks: According to van Achterberg (2014), *Phaedrotoma pulchriceps* (Szépligeti, 1898) is synonym with *Phaedrotoma pulchriventris* (Fischer, 1958).

***Pokomandya curticornis* Fischer, 1959**

General distribution: Palaearctic.

Distribution in Iran: East Azarbaijan (Ghahari *et al.* 2009c).

***Psytalia concolor* (Szépligeti, 1910)**

General distribution: Afrotropical, Oceanic and Palaearctic.

Distribution in Iran: Lorestan (Ghahari *et al.* 2012a), Semnan (Naderian *et al.* 2012).

***Rhogadopsis reconditor* (Wesmael, 1835)**

General distribution: Palaearctic.

Distribution in Iran: Kermanshah (Ghahari and Fischer 2012, as *Opius docilis* Haliday, 1837).

Remarks: According to van Achterberg (2014), *Rhogadopsis reconditor* is synonym with *Opius docilis* Haliday, 1837.

***Utetes coracinus* (Thomson, 1895)**

General distribution: Palaearctic.

Distribution in Iran: Guilan (Ghahari *et al.* 2012c, reported as *Opius* (*Utetes*) *coracinus*).

***Utetes ferrugator* (Goureau, 1862)**

General distribution: Palaearctic.

Distribution in Iran: Ardabil (Ghahari and Fischer 2011b, reported as *Opius* (*Utetes*) *magnus* on *Rhagoletis* sp.), Guilan (Ghahari *et al.* 2012c, reported as *Opius* (*Utetes*) *magnus*), West Azarbaijan (Rastegar *et al.* 2012, reported as *Opius* (*Utetes*) *magnus*).

Remarks: According to van Achterberg (2014), *Utetes magnus* is a synonym of *Utetes ferrugator*.

***Utetes testaceus* (Wesmael, 1838)**

General distribution: Palaearctic.

Distribution in Iran: Guilan (Ghahari *et al.* 2012c, reported as *Opius* (*Utetes*) *testaceus*).

***Utetes truncatus* (Wesmael, 1835)**

General distribution: Palaearctic.

Distribution in Iran: Lorestan (Ghahari *et al.* 2012a, reported as *Opius* (*Utetes*) *truncatus*).

Remarks: Khajeh *et al.* (2014b) had erroneously recorded from Guilan province with reference to Ghahari *et al.* (2012a).

***Xynobius aciculatus* (Thomson, 1895)**

General distribution: Palaearctic.

Distribution in Iran: Kermanshah (Ghahari and Fischer 2012, reported as *Opius* (*Xynobius*) *aciculatus*).

***Xynobius decoratus* (Stelfox, 1949)**

General distribution: Palaearctic.

Distribution in Iran: Guilan (Ghahari *et al.* 2012c, reported as *Opius* (*Xynobius*) *decoratus*), East Azarbaijan (Rastegar *et al.* 2012, reported as *Opius* (*Xynobius*) *decoratus*).

***Xynobius rudis* (Wesmael, 1835)**

General distribution: Nearctic and Palaearctic.

Distribution in Iran: Kermanshah (Ghahari and Fischer 2012, reported as *Opius* (*Xynobius*) *rudis*), Sistan & Baluchestan (Khajeh *et al.* 2014b).

**Subfamily Orgilinae Ashmead, 1900****Tribe Orgilini Ashmead, 1900*****Orgilus abbreviator* (Ratzeburg, 1852)**

General distribution: Palaearctic.

Distribution in Iran: No specific locality cited (Taeger 1989, reported as *Orgilus nanellae* Tobias, 1986).

***Orgilus hungaricus* Szépligeti, 1896**

General distribution: Palaearctic.

Distribution in Iran: East Azarbaijan (Ghahari *et al.* 2009c)

***Orgilus ischnus* Marshall, 1898**

General distribution: Oriental and Palaearctic.

Distribution in Iran: Alborz, Tehran (Farahani *et al.* 2014e).

***Orgilus meyeri* Telenga, 1933**

General distribution: Palaearctic.

Distribution in Iran: Tehran (Taeger 1989), Alborz, Guilan, Mazandaran (Farahani *et al.* 2014e).

***Orgilus nitidior* Taeger, 1989**

General distribution: Azerbaijan and Iran.

Distribution in Iran: Alborz, Guilan, Tehran (Farahani *et al.* 2014e).

***Orgilus obscurator* (Nees, 1812)**

General distribution: Nearctic, Neotropical and Palaearctic.

Distribution in Iran: Tehran (Sabzevari 1968; Radjabi 1986).

Host: *Recurvoaia nanella* (Denis & Schiffermüller) (Lep.: Gelechiidae) (Sabzevari 1968).

***Orgilus pimpinellae* Niezabitowski, 1910**

General distribution: Palaearctic.

Distribution in Iran: Mazandaran (Ghahari *et al.* 2010a), Guilan, Qazvin (Farahani *et al.* 2014e), Golestan (Samin *et al.* 2015a).

***Orgilus ponticus* Tobias, 1986**

General distribution: Palaearctic.

Distribution in Iran: West Azarbaijan (Ghahari and Fischer 2011a), Golestan (Samin *et al.* 2015a).

***Orgilus punctiventris* Tobias, 1976**

General distribution: Palaearctic.

Distribution in Iran: Guilan (Farahani *et al.* 2014e).

***Orgilus priesneri* Fischer, 1958**

General distribution: Afrotropical and Palaearctic.

Distribution in Iran: Fars (Lashkari Bod *et al.* 2010, 2011a, reported as *Orgilus kazakhstanicus*).

***Orgilus temporalis* Tobias, 1976**

General distribution: Palaearctic.

Distribution in Iran: Mazandaran (Farahani *et al.* 2014e).

***Orgilus tobiassi* Taeger, 1989**

General distribution: Palaearctic.

Distribution in Iran: No specific locality cited (Taeger 1989).

**Subfamily Pambolinae Marshall, 1885**

**Tribe Pambolini Marshall, 1885**

***Pambolus (Phaenodus) pallipes* (Förster, 1862)**

General distribution: Palaearctic.

Distribution in Iran: No specific locality cited (Belokobylskij 1998).

**Subfamily Rhysipolinae Belokobylskij, 1984**

***Cerophanes kerzhneri* Tobias, 1971**

General distribution: Palaearctic.

Distribution in Iran: Isfahan (Ghahari *et al.* 2011c, reported as subfamily Exothecinae), East Azarbaijan (Rastegar *et al.* 2012, reported as subfamily Exothecinae).

***Rhysipolis decorator* (Haliday, 1836)**

General distribution: Nearctic and Palaearctic.

Distribution in Iran: Isfahan (Ghahari *et al.* 2011c, reported as subfamily Exothecinae).

***Rhysipolis mediator* (Haliday, 1836)**

General distribution: Oriental and Palaearctic.

Distribution in Iran: Isfahan (Ghahari *et al.* 2011c, reported as subfamily Exothecinae and *Rhysipolis similis* (Szépligeti, 1896)), West Azarbaijan (Rastegar *et al.* 2012, reported as *R. similis*).

**Subfamily Rhyssalinae Förster, 1862**

***Histeromerus mystacinus* Wesmael, 1838**

General distribution: Palaearctic.

Distribution in Iran: Mazandaran (Ghahari and Fischer 2011b; Sakenin *et al.* 2012), Golestan (Samin *et al.* 2015a).

**Tribe Acrisidini Hellén, 1957*****Acrisis brevicornis* Hellén, 1957**

General distribution: Palaearctic.

Distribution in Iran: No specific locality cited (Belokobylskij 1998).

***Acrisis suomii* Tobias, 1983**

General distribution: Finland and Iran.

Distribution in Iran: Guilan (Farahani *et al.* 2015d).

**Subfamily Rogadinae Förster, 1862****Tribe Aleiodini Muesebeck, 1928*****Aleiodes (Aleiodes) alternator* (Nees, 1834)**

General distribution: Oriental and Palaearctic.

Distribution in Iran: Guilan (Farahani *et al.* 2015a).

***Aleiodes (Aleiodes) arnoldii* (Tobias, 1976)**

General distribution: Palaearctic.

Distribution in Iran: Alborz, Guilan, Mazandaran, Tehran (Farahani *et al.* 2015a).

***Aleiodes (Aleiodes) bicolor* (Spinola, 1808)**

General distribution: Palaearctic.

Distribution in Iran: No specific locality cited (Telenga 1941), Sistan & Baluchestan (Hedwig 1957), Mazandaran (Ghahari *et al.* 2009a; Farahani *et al.* 2015a), Isfahan (Ghahari *et al.* 2011c), Fars (Lashkari Bod *et al.* 2011a), Alborz, Guilan, Tehran (Farahani *et al.* 2015a).

Remarks: This species frequently collected.

***Aleiodes (Aleiodes) circumscriptus* (Nees, 1834)**

General distribution: Palaearctic.

Distribution in Iran: No specific locality cited (Telenga 1941; Shenefelt 1975), Golestan (Ghahari *et al.* 2009a), Fars (Lashkari Bod *et al.* 2011a), Ilam (Ghahari *et al.* 2011a), West Azarbaijan (Rastegar *et al.* 2012), Guilan, Mazandaran (Farahani *et al.* 2015a).

***Aleiodes (Aleiodes) compressor* (Herrich-Schäffer, 1838)**

General distribution: Oriental and Palaearctic.

Distribution in Iran: Ilam (Ghahari *et al.* 2011a, reported as *Petalodes compressor*).

Remarks: According to van Achterberg (2014), genus *Petalodes* Wesmael is a synonym with *Aleiodes*.

***Aleiodes (Aleiodes) crassipes* (Thomson, 1892)**

General distribution: Palaearctic.

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

Remarks: This species need to be re-confirmed (Farahani *et al.* 2015a).

***Aleiodes (Aleiodes) esenbeckii* (Hartig, 1838)**

General distribution: Oriental and Palaearctic.

Distribution in Iran: Khorasan Razavi (Samin *et al.* 2011), East Azarbaijan (Samin 2015).

***Aleiodes (Aleiodes) gastritor* (Thunberg, 1822)**

General distribution: Nearctic, Oceanic, Oriental and Palaearctic.

Distribution in Iran: Sistan & Baluchestan (Hedwig 1957, *Rogas testaceus*), East Azarbaijan (Ghahari *et al.* 2009a, reported as *Rogas rossicus* Kokujev, 1898; Rastegar *et al.* 2012), Qazvin (Ghahari *et al.* 2011b).

***Aleiodes (Aleiodes) nigricornis* Wesmael, 1838**

General distribution: Palaearctic.

Distribution in Iran: Ilam (Ghahari *et al.* 2011a).

***Aleiodes (Aleiodes) nocturnus* Telenga, 1941**

General distribution: Palaearctic.

Distribution in Iran: No specific locality cited (Telenga 1941; Shenefelt 1975; Tobias 1986), Tehran, Guilan (Farahani *et al.* 2015a).

***Aleiodes (Aleiodes) pallescens* Hellén, 1927**

General distribution: Oriental and Palaearctic.

Distribution in Iran: Isfahan (Ghahari *et al.* 2011c), Ardabil (Rastegar *et al.* 2012).

Remarks: This species need to be re-confirmed (Farahani *et al.* 2015a).

***Aleiodes (Aleiodes) pallidator* (Thunberg, 1822)**

General distribution: Nearctic, Neotropical, Oriental and Palaearctic.

Distribution in Iran: Kerman (Ghahari *et al.* 2010b), Qazvin (Ghahari *et al.* 2011b), Khuzestan (Samin *et al.* 2015b).

***Aleiodes (Aleiodes) seriatus (Herrich-Schäffer, 1838)***

General distribution: Oriental and Palaearctic.  
Distribution in Iran: Mazandaran (Farahani *et al.* 2015a).

***Aleiodes (Aleiodes) signatus (Nees, 1811)***

General distribution: Palaearctic.  
Distribution in Iran: Qazvin (Ghahari *et al.* 2011b), West Azarbaijan (Samin *et al.* 2014).

***Aleiodes (Chelonorhogas) aestuosus (Reinhard, 1863)***

General distribution: Oriental and Palaearctic.  
Distribution in Iran: Mazandaran (Farahani *et al.* 2015a).

***Aleiodes (Chelonorhogas) agilis (Telenga, 1941)***

General distribution: Palaearctic.  
Distribution in Iran: No specific locality cited (Telenga 1941; Shenefelt 1975; Tobias 1976, 1986).

***Aleiodes (Chelonorhogas) apicalis (Brullé, 1832)***

General distribution: Palaearctic.  
Distribution in Iran: Sistan & Baluchestan (Hedwig 1957, reported as *A. ductor*), no specific locality cited (Tobias 1976, 1986, reported as *A. ductor*), Isfahan (Ghahari *et al.* 2011c, reported as *A. ductor*), West Azarbaijan (Samin *et al.* 2014, reported as *A. ductor*), Guilan, Mazandaran (Farahani *et al.* 2015a).

***Aleiodes (Chelonorhogas) dimidiatus (Spinola, 1808)***

General distribution: Oriental and Palaearctic.  
Distribution in Iran: No specific locality cited (Telenga 1941).

***Aleiodes (Chelonorhogas) eurinus (Telenga, 1941)***

General distribution: Oriental and Palaearctic.  
Distribution in Iran: Guilan (Farahani *et al.* 2015a).

***Aleiodes (Chelonorhogas) gasterator (Jurine, 1807)***

General distribution: Palaearctic.  
Distribution in Iran: Isfahan (Ghahari *et al.* 2011c), East Azarbaijan (Rastegar *et al.* 2012).

***Aleiodes (Chelonorhogas) rufipes (Thomson, 1892)***

General distribution: Oriental and Palaearctic.  
Distribution in Iran: Ilam (Ghahari *et al.* 2011a).

***Aleiodes (Chelonorhogas) unipunctator (Thunberg, 1822)***

General distribution: Palaearctic.  
Distribution in Iran: Qazvin (Ghahari *et al.* 2011b), Guilan (Sakenin *et al.* 2012), East Azarbaijan (Rastegar *et al.* 2012).

***Heterogamus dispar (Haliday, 1833)***

General distribution: Oriental and Palaearctic.  
Distribution in Iran: Mazandaran (Farahani *et al.* 2015a).

**Tribe Clinocentrini van Achterberg, 1991*****Clinocentrus cunctator (Haliday, 1836)***

General distribution: Palaearctic.  
Distribution in Iran: Qazvin (Ghahari *et al.* 2011b, reported as subfamily Hormiinae), Mazandaran (Sakenin *et al.* 2012, reported as subfamily Hormiinae), Ardabil (Rastegar *et al.* 2012, reported as subfamily Hormiinae).

***Clinocentrus excubitor (Haliday, 1836)***

General distribution: Oriental and Palaearctic.  
Distribution in Iran: Mazandaran (Farahani *et al.* 2015a).

***Clinocentrus exsertor (Nees, 1811)***

General distribution: Nearctic and Palaearctic.  
Distribution in Iran: Isfahan (Ghahari *et al.* 2011c, reported as subfamily Hormiinae), Guilan (Farahani *et al.* 2015a).

**Tribe Yeliconini van Achterberg, 1991*****Yelicones iranus (Fischer, 1963)***

General distribution: Iran.  
Distribution in Iran: Kerman (Fischer 1963, reported as *Pectenopijs iranus*).

**Subfamily Sigalphinae Haliday, 1833****Tribe Sigalphini Haliday, 1833*****Sigalphus irrorator (Fabricius, 1775)***

General distribution: Palaearctic.  
Distribution in Iran: Golestan (Ghahari *et al.* 2010b; Samin *et al.* 2015a).

## Discussion

Differences in species diversity and numbers of braconid wasps in Iran and its adjacent countries are given in Table 1. In comparison with the adjacent countries, major number of subfamilies occurred in Iran but the maximum number of species has been reported from Turkey. Turkey with 859 recorded species has the highest diversity followed by Iran, Azerbaijan and Turkmenistan countries with 780, 556 and 300 species, respectively. Afghanistan, Pakistan and Iraq countries have the lowest number of recorded species with 104, 81 and 41 species, respectively.

This review study showed that, 780 braconid species belonging to 26 subfamilies are presented in Iran. The most species-rich subfamilies were Braconinae (115 species), Microgasterinae (102 species), Opiinae (95 species) and Alysiinae (84 species). However some subfamilies such as Ichneutinae, Pambolinae and Sigalphinae are represented in Iran by a single species.

The review of braconid species showed that 34 species are exclusively distributed in Iran (Table 2). These species can be locally endemic or possibly found outside Iran, by subsequent studies.

Except the subfamily Aphidiinae, host associations of braconid wasps in Iran is poorly studied (Table 3). Aphidiinae has been successfully used for biological control aphids (Starý 2006). Taxonomy, host selection behavior, and ecological studies may be valuable in use as biological agents (Rehman and Powell 2010). Ecology and biology of important aphid parasitoid species were studied in Iran, for example, *Trioxys pallidus* (Rakhshani *et al.* 2004), *Diaeretiella rapae* (Fathipour *et al.* 2006; Tazerouni *et al.* 2011, 2012a, 2012b),

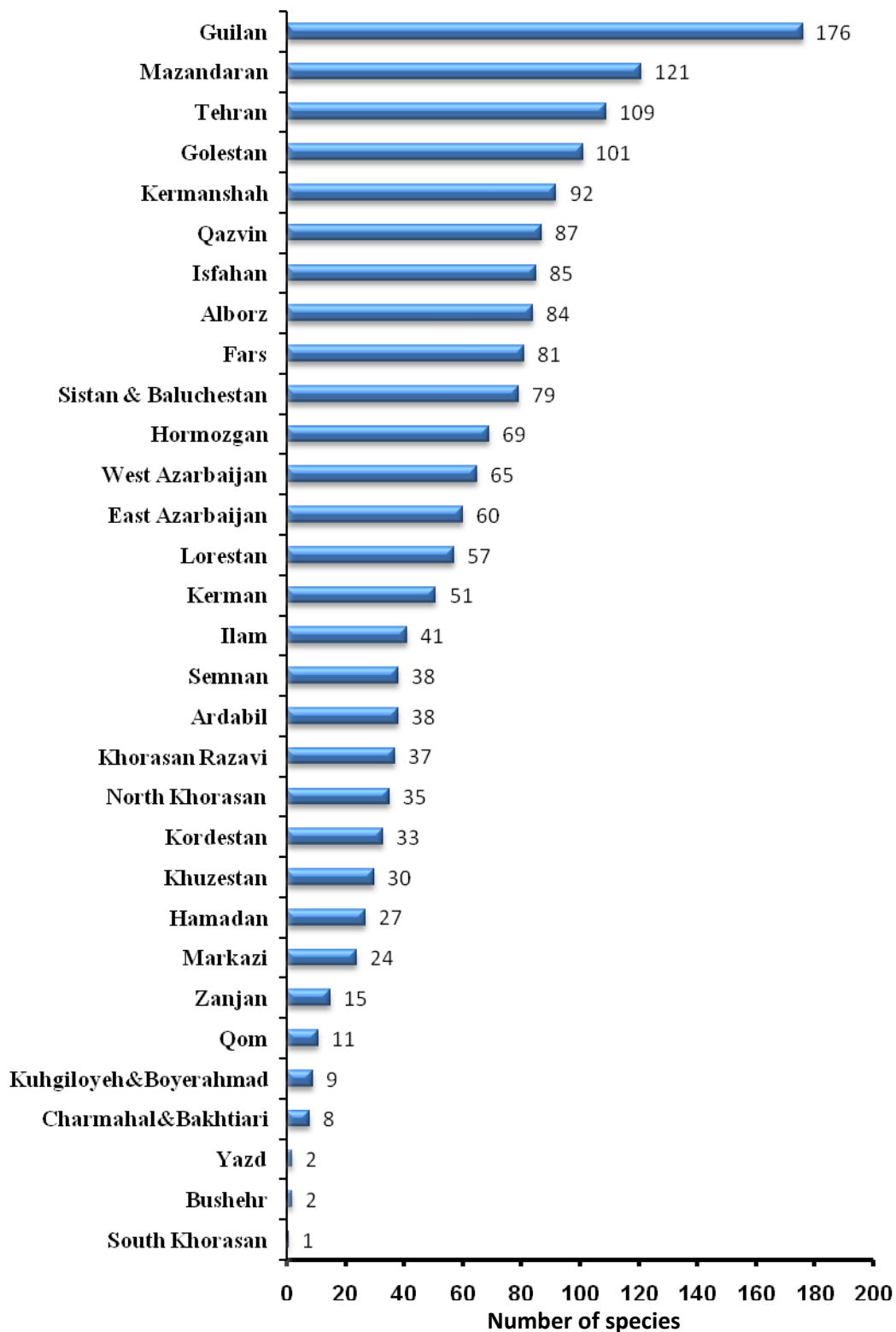
*Lysiphlebus fabarum* (Bagheri-Matin *et al.* 2005, 2009), *Praon volucre* (Farhad *et al.* 2011, 2012; Pasandideh *et al.* 2015), *Aphidius colemani*, *Aphidius matricariae* (Zamani *et al.* 2006, 2007, 2012; Tahriri *et al.* 2007, 2010), *Aphis gossypii* (Tazerouni *et al.* 2016). In other subfamilies, the biology of *Habrobracon hebetor* (Braconinae) has been studied and several attempts have been made to mass rearing it in Iran (Amir-Maafi and Chi 2006; Forouzan *et al.* 2008; Faal-Mohammad-Ali and Shishehbor 2013; Saadat *et al.* 2014; Borzoui *et al.* 2016).

Guilan province with 176 recorded species (22.51%) has the highest diversity followed by Mazandaran, Tehran and Golestan provinces with 121 (15.47%), 109 (13.94%) and 101 (12.92%) species, respectively. Yazd, Bushehr and South Khorasan provinces have the lowest number of recorded species (Fig. 1).

Among the recorded braconid species from Iran, eight species are considered to be incorrect records. These species are listed in Table 4 and omitted from the current checklist. Considering the variety of climate and different ecological conditions which led to heterogeneity of flora and fauna in Iran, descriptions of additional new braconid taxa are still to be expected. Much more efforts should be made to identify more information about the distribution of the Iranian braconid wasps and their host association data.

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**Figure 1.** Number of reported species of Iranian braconid wasps by province.

**Table 1.** Comparison of the number of species of subfamilies Braconidae recorded in Iran and adjacent countries (data taken from Yu *et al.* 2012).

| Subfamily            | Iran | No. species in adjacent countries |            |      |          |        |              |
|----------------------|------|-----------------------------------|------------|------|----------|--------|--------------|
|                      |      | Afghanista<br>n                   | Azerbaijan | Iraq | Pakistan | Turkey | Turkmenistan |
| Agathidinae          | 33   | 2                                 | 30         | 0    | 2        | 38     | 11           |
| Alysiinae            | 85   | 9                                 | 107        | 1    | 1        | 31     | 13           |
| Aphidiinae           | 73   | 7                                 | 7          | 28   | 35       | 47     | 7            |
| Blacinae             | 15   | 4                                 | 7          | 0    | 0        | 21     | 4            |
| Brachistinae         | 18   | 2                                 | 25         | 0    | 0        | 10     | 7            |
| Braconinae           | 115  | 23                                | 88         | 4    | 11       | 171    | 70           |
| Cardiochilinae       | 7    | 2                                 | 4          | 0    | 2        | 4      | 20           |
| Cenocoeliinae        | 0    | 0                                 | 1          | 0    | 0        | 0      | 0            |
| Charmontinae         | 0    | 0                                 | 1          | 0    | 0        | 0      | 0            |
| Cheloninae           | 67   | 9                                 | 54         | 1    | 6        | 71     | 57           |
| Dirrhopinae          | 0    | 0                                 | 0          | 0    | 0        | 0      | 0            |
| Doryctinae           | 31   | 1                                 | 23         | 1    | 3        | 5      | 12           |
| Euphorinae           | 53   | 2                                 | 34         | 1    | 0        | 63     | 5            |
| Exothecinae          | 0    | 0                                 | 2          | 0    | 0        | 0      | 1            |
| Gnamptodontinae      | 4    | 0                                 | 0          | 0    | 0        | 0      | 0            |
| Helconinae           | 9    | 0                                 | 4          | 0    | 0        | 8      | 1            |
| Histeromerinae       | 0    | 0                                 | 0          | 1    | 0        | 0      | 0            |
| Homolobinae          | 3    | 1                                 | 2          | 0    | 0        | 1      | 1            |
| Hormiinae            | 10   | 6                                 | 4          | 0    | 0        | 1      | 8            |
| Ichneutinae          | 1    | 0                                 | 2          | 0    | 0        | 0      | 0            |
| Lysiterminae         | 0    | 0                                 | 0          | 0    | 0        | 0      | 0            |
| Macrocentrinae       | 7    | 1                                 | 11         | 0    | 2        | 5      | 3            |
| Meteorideinae        | 0    | 0                                 | 0          | 0    | 0        | 0      | 0            |
| Microgastrinae       | 102  | 18                                | 112        | 2    | 17       | 167    | 54           |
| Microtypinae         | 2    | 0                                 | 0          | 0    | 0        | 2      | 1            |
| Miracinae            | 3    | 1                                 | 1          | 0    | 0        | 3      | 0            |
| Opiinae              | 95   | 6                                 | 3          | 2    | 1        | 169    | 10           |
| Orgilinae            | 12   | 2                                 | 8          | 0    | 1        | 22     | 1            |
| Pambolinae           | 1    | 0                                 | 0          | 0    | 0        | 1      | 0            |
| Rhysipolinae         | 3    | 0                                 | 3          | 0    | 0        | 0      | 1            |
| Rhyssalinae          | 3    | 0                                 | 2          | 0    | 0        | 0      | 0            |
| Rogadinae            | 27   | 8                                 | 21         | 0    | 0        | 19     | 13           |
| Sigalphinae          | 1    | 0                                 | 0          | 0    | 0        | 0      | 0            |
| <b>No. subfamily</b> | 26   | 18                                | 25         | 9    | 11       | 21     | 21           |
| <b>Total species</b> | 780  | 104                               | 556        | 41   | 81       | 859    | 300          |



**Table 2.** The braconid wasp species (Hymenoptera: Braconidae) exclusively reported from Iran.

| Subfamily             | Species                              | Locations (province)       | References   |
|-----------------------|--------------------------------------|----------------------------|--|
| <b>Agathidinae</b>    | <i>Lytopylus persicus</i>            | Guilan, Mazandaran         | Farahani <i>et al.</i> (2014a)                                     |
|                       | <i>Creminops richteri</i>            | Sistan & Baluchestan       | Hedwig (1957)  |
| <b>Alysiinae</b>      | <i>Aspilota alfalfae</i>             | Fars                       | Fischer <i>et al.</i> (2011)                                       |
|                       | <i>Aristelix persica</i>             | Hormozgan                  | Peris-Felipo <i>et al.</i> (2015)                                  |
|                       | <i>Chorebus axillaris</i>            | Fars                       | Fischer <i>et al.</i> (2011)                                       |
|                       | <i>Chorebus longiarticulis</i>       | Fars                       | Fischer <i>et al.</i> (2011)                                       |
|                       |                                      | Kerman                     | Ghotbi Ravandi <i>et al.</i> (2015)                                |
|                       | <i>Chorebus nigridiremptus</i>       | Fars                       | Fischer <i>et al.</i> (2011)                                       |
|                       | <i>Chorebus properesan</i>           | Fars                       | Fischer <i>et al.</i> (2011)                                       |
|                       | <i>Chorebus zarghanensis</i>         | Fars                       | Fischer <i>et al.</i> (2011)                                       |
| <b>Aphidiinae</b>     | <i>Aphidius iranicus</i>             | Guilan                     | Tomanović <i>et al.</i> (2007)<br>Talebi <i>et al.</i> (2009)      |
|                       | <i>Aphidius stigmaticus</i>          | Hamadan                    | Rakhshani <i>et al.</i> (2011)                                     |
|                       | <i>Tanytrichophorus petiolaris</i>   | Tehran                     | Starý <i>et al.</i> (2000)   |
|                       | <i>Trioxys metacarpalis</i>          | North Khorasan             | Rakhshani <i>et al.</i> (2008c)<br>Rakhshani <i>et al.</i> (2012b) |
| <b>Braconinae</b>     | <i>Iphiaulax mirabilis</i>           | Sistan & Baluchestan       | Hedwig (1957)  |
|                       | <i>Megalommum pistacivora</i>        | Kerman                     | van Achterberg and Mehrnejad (2011)                                |
|                       | <i>Bracon persiangulfensis</i>       | Hormozgan                  | Ameri <i>et al.</i> (2014c)  |
|                       | <i>Habrobracon iranicus</i>          | No specific locality cited | Fischer (1972)   |
|                       |                                      | Tehran                     | Shojai (1989)  |
|                       | <i>Pseudovipio nigrirostris</i>      | No specific locality cited | Kokujev (1907)   |
|                       | <i>Pseudovipio schaeuffelei</i>      | South Khorasan             | Hedwig (1957)  |
|                       | <i>Rhadinobracon nigrocephalus</i>   | Sistan & Baluchestan       | Hedwig (1957)  |
|                       | <i>Rhadinobracon zarudnyi</i>        | No specific locality cited | Telenga (1936), Shenefelt (1978)                                   |
|                       | <i>Vipio terrefactor persica</i>     | No specific locality cited | Szépligeti (1901), Telenga (1936), Tobias (1976, 1986).            |
|                       | <i>Vipio xanthurus</i>               | No specific locality cited | Fahringer (1926)   |
| <b>Cardiochilinae</b> | <i>Cardiochiles tibialis</i>         | Sistan & Baluchestan       | Hedwig (1957)  |
|                       | <i>Cardiochiles triplus</i>          | Sistan & Baluchestan       | Hedwig (1957)  |
|                       | <i>Pseudocardiochilus abnormipes</i> | Sistan & Baluchestan       | Hedwig (1957)  |
| <b>Cheloninae</b>     | <i>Chelonus iranicus</i>             | East Azarbaijan            | Tobias (1972)  |
|                       | <i>Chelonus setaceus</i>             | Tehran                     | Papp (1993), Farahani <i>et al.</i> (2013a)                        |
|                       | <i>Chelonus iranicus</i>             | No specific locality cited | Tobias (2001)  |
|                       |                                      | Alborz                     | Papp (2014)  |
|                       | <i>Chelonus moczari</i>              | Alborz                     | Papp (2014)  |
| <b>Euphorinae</b>     | <i>Meteorus breviterebratus</i>      | Hormozgan                  | Ameri <i>et al.</i> (2014b)  |
| <b>Helconinae</b>     | <i>Helcon heinrichi</i>              | No specific locality cited | Hedqvist (1967)  |
| <b>Miracinae</b>      | <i>Centistidea pistaciella</i>       | Kerman                     | van Achterberg and Mehrnejad (2002)                                |
|                       | <i>Mirax caspiana</i>                | Guilan, Mazandaran         | Farahani <i>et al.</i> (2014f)                                     |

**Table 3.** Host associations of braconid wasps (Hymenoptera: Braconidae) in Iran.

| Subfamily       | Host association in Iran |            | Hosts   |
|-----------------|--------------------------|------------|---|
|                 | Number                   | percentage |   |
| Agathidinae     | 1                        | 3.03       | Lepidoptera   |
| Alysiinae       | 3                        | 3.57       | Diptera   |
| Aphidiinae      | 71                       | 97.26      | Hemiptera   |
| Blacinae        | 0                        | 0          | -   |
| Brachistinae    | 1                        | 5.56       | Coleoptera  |
| Braconinae      | 16                       | 13.91      | Lepidoptera<br>Coleoptera<br>Diptera<br>Hymenoptera |
| Cardiochilinae  | 2                        | 28.57      | Lepidoptera   |
| Cheloninae      | 5                        | 7.46       | Lepidoptera   |
| Doryctinae      | 5                        | 16.13      | Coleoptera  |
| Euphorinae      | 10                       | 18.87      | Lepidoptera<br>Coleoptera<br>Neuroptera             |
| Gnamptodontinae | 0                        | 0          | -   |
| Helconinae      | 0                        | 0          | -   |
| Hormiinae       | 0                        | 0          | -   |
| Ichneutinae     | 0                        | 0          | -   |
| Macrocentrinae  | 1                        | 14.29      | -   |
| Microgastrinae  | 26                       | 25.49      | Lepidoptera   |
| Microtypinae    | 0                        | 0          | -   |
| Miracinae       | 1                        | 33.33      | -   |
| Opiinae         | 3                        | 3.16       | Diptera   |
| Orgilinae       | 1                        | 8.33       | Lepidoptera   |
| Pambolinae      | 0                        | 0          | -   |
| Rhysipolinae    | 0                        | 0          | -   |
| Rhyssalinae     | 0                        | 0          | -   |
| Rogadinae       | 0                        | 0          | -   |
| Sigalphinae     | 0                        | 0          | -   |

**Table 4.** Incorrect reports of the Iranian Braconidae.

| Species  | Reference   |
|--|---|
| <i>Aphidius tanacetarius</i> Mackauer, 1962                            | Rajabi-Mazhar <i>et al.</i> (2008)  |
| <i>Praon dorsale</i> (Haliday, 1833)                                   | Starý <i>et al.</i> (2000)  |
| <i>Bracon</i> ( <i>Glabrobracon</i> ) <i>dichromus</i> (Wesmael, 1838) | Yu <i>et al.</i> (2012)   |
| <i>Ephedrus</i> ( <i>Ephedrus</i> ) <i>laevicollis</i> (Thomson, 1895) | Fallahzadeh and Saghaei (2010)  |
| <i>Peristenus rubricollis</i> (Thomson, 1892)                          | Fallahzadeh and Saghaei (2010)<br>Gadallah <i>et al.</i> (2006b)          |
| <i>Orgilus jennieae</i> Marsh, 1979                                    | Fallahzadeh and Saghaei (2010)  |
| <i>Pholetesor exiguus</i> (Haliday, 1834)                              | Yu <i>et al.</i> (2012, online version)<br>Gadallah <i>et al.</i> (2015b) |
| <i>Protapanteles thompsoni</i> (Lyle, 1927)                            | Fallahzadeh and Saghaei (2010)<br>Gadallah <i>et al.</i> (2015b)          |

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## خانواده Braconidae (Insecta: Hymenoptera: Ichneumonoidea) در ایران: تنوع، انتشار و ارتباطات میزبانی

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**چکیده:** لیست به روز شده زنبورهای خانواده Braconidae (Hymenoptera: Ichneumonoidea) که از ایران در طی بیش از ۱۰۰ سال گذشته (۱۳۹۵-۱۲۸۰ هجری شمسی) از ایران گزارش شده است ارائه شده است. این فهرست شامل ۷۸۰ گونه از ۱۴۱ جنس و ۲۶ زیر خانواده را شامل می شود که در بین آنها ۳۴ گونه منحصراً متعلق به فون ایران هستند. اطلاعات مربوط به میزبان های شناخته شده و انتشار جغرافیایی گونه ها در ایران ارائه شده است.

**واژگان کلیدی:** فهرست گونه‌ها، زنبورهای پارازیتوئید، Braconidae، فون، ایران