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On a collection of Ichneumonidae (Hymenoptera: Ichneumonoidea) of Iran

Majid, Navaeian¹; Hamid, Sakenin²; Angélica, Maria Pentead-Dias³; Najmeh, Samin⁴;
Reijo, Jussila⁵ and Shaaban, Abd-Rabou⁶

¹ Department of Biology, Yadegar- e- Imam Khomeini (RAH) Shahre Rey Branch, Islamic Azad University, Tehran, Iran.

² Department of Plant Protection, Qaemshahr Branch, Islamic Azad University, Mazandaran, Iran.

³ Departamento de Ecologia e Biologia Evolutiva, Universidade Federal de São Carlos – UFSCar, Rodovia Washington Luís, São Carlos, SP, Brasil.

⁴ Department of Plant Protection, Science and Research Branch, Islamic Azad University, Tehran, Iran.

⁵ Zoological Museum, Section of Biodiversity and Environmental Sciences, Department of Biology, FI-20014 University of Turku, Finland.

⁶ Plant Protection Research Institute, Agricultural Research Center, Dokki, Giza, Egypt.

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Abstract:

This faunistic paper on Iranian Ichneumonidae deals with 69 species in 15 subfamilies Adelognathinae (one species), Anomaloninae (Three species, three genera), Banchinae (11 species, five genera), Campopleginae (19 species, 13 genera), Cryptinae (Four species, four genera), Ctenopelmatinae (Seven species, five genera), Diplazontinae (Two species, two genera), Ichneumoninae (11 species, nine genera), Metopiinae (One species), Ophioninae (One species), Orthocentrinae (One species), Pimplinae Two species, two genera), Poemeniinae (Two species, two genera), Tersilochinae (Three species, three genera), and Tryphoninae (One species) which were collected from different regions of Iran. Eight species are new records for the fauna of Iran: *Barichneumon perversus* (Kriechbaumer, 1893), *Bioblapsis polita* (Vollenhoven, 1878), *Chasmias motatorius* (Fabricius, 1775), *Diadegma contractum* (Brischke, 1880), *Diphyus castanopyga* (Stephens, 1835), *Euporizon exilis* (Holmgren, 1860), *Sympherta montana* (Gravenhorst, 1829), and *Syrphoctonus dimidiatus* (Schrank, 1802).

Introduction

The Hymenoptera are one of the four largest orders of insects, with over 152 677 described species worldwide (Zhang, 2013). The Ichneumonidae is the largest hymenopteran family with 1 601 genera and 25,285 described species (Yu *et al.*, 2016). This

cosmopolitan family usually occurs in all kinds of climates, though humid habitats are more favourable for them (Wahl, 1993 and Broad *et al.*, 2018). The catalogue of Iranian Ichneumonidae has been published by Kolarov and Ghahari (2005), they recorded 144 species belonging to 65

genera and 14 subfamilies. After that Barahoei *et al.* (2012) published the checklist comprises 502 species belonging to 189 genera and 24 subfamilies. Later, other authors (Mohammadi-Khoramabadi *et al.*, 2013; Ghahari and Jussila, 2014a, 2014b, 2015a, 2015b, 2016a, 2016b; Barahoei *et al.*, 2014a, 2014b, 2015; Ghahari, 2015, 2016; Ghahari and Gadallah, 2017; Riedel and Aghadokht, 2017 and Mohammadi- Khoramabadi and Talebi, 2018, etc.) have made contributions to the Iranian fauna. The aim of this paper is the faunistic study on the ichneumonids from some regions of Iran and introducing of eight new country records.

Materials and methods

Most of the specimens of this faunistic paper were obtained from insect collections of some universities (Branches of Islamic Azad University), private collections, and world museums (e.g., HNHM, NMPC, Turku University, and etc.). Additionally, some materials were collected by Malaise traps and sweeping net from different regions of Iran. The specimens are deposited in the collections of authors and also in the mentioned universities and museums. Here we follow Yu *et al.* (2016) for nomenclature, classification and distributional data.

Results and discussion

In total, 69 species of Ichneumonidae within 53 genera and 15 subfamilies are listed in this paper, with eight new country records. The list of species is represented below alphabetically with distributional data.

The results of this research with eight new country records and also the conducted researches in different regions of Iran indicate that the fauna of ichneumonid wasps is very diverse in Iran and also unknown. So, we expect a diverse fauna of Ichneumonidae in most regions of Iran where have not been

sampled systematically. These beneficial insects have been used successfully as biocontrol agents and are huge potential for utilization in managed biological control programs (Wahl, 1993; Godfray, 1994; Ghahari *et al.*, 2006 and Quicke, 2015). Additionally, the hosts of most species of Iranian Ichneumonidae are unknown because of using of Malaise traps and sweeping net for collecting. So, conducting the faunistic surveys upon parasitoids-host relationships will result to determining of ichneumonids' hosts and establishment of biological control programs.

Subfamily Adelognathinae

Genus *Adelognathus* Holmgren, 1855
***Adelognathus nigrifrons* Holmgren, 1857**

Material examined: Mazandaran province, Behshahr, 1♀, September 2005.

General distribution: Azerbaijan, Canada, former Czechoslovakia, Finland, Germany, Poland, Russia, Sweden and United Kingdom.

Subfamily Anomaloninae

Genus *Aphanistes* Förster, 1869
***Aphanistes ruficornis* (Gravenhorst, 1829)**

Material examined: Mazandaran province, Neka, 2♀, September 2002.

General distribution: Belgium, Bulgaria, Former Czechoslovakia, Finland, France, Germany, Hungary, Ireland, Italy, Japan, Kazakhstan, Korea, Latvia, Netherlands, Poland, Romania, Russia, Spain, Sweden, Switzerland, Ukraine and United Kingdom.

Genus *Barylypa* Förster, 1869
***Barylypa insidiator* (Förster, 1878)**

Material examined: Isfahan province, Shahreza, 2♀, 2♂, April 2004.

General distribution: Afghanistan, Austria, Belarus, Belgium, Bulgaria, China, Former former Czechoslovakia, Finland, France, Georgia, Germany, Hungary, Kazakhstan, Korea, Latvia,

Lithuania, Mongolia, Netherlands, Poland, Romania, Russia, Spain, Sweden, Ukraine, United Kingdom and former Yugoslavia.

Genus *Therion* Curtis, 1829

***Therion giganteum* (Gravenhorst, 1829)**

Material examined: Razavi Khorasan province, Torbat Heydarieh, 1♀, April 2004.

General distribution: Algeria, Azerbaijan, China, former Czechoslovakia, France, Germany, Hungary, Italy, Mongolia, Poland, Russia and Sweden.

Subfamily Banchinae

Genus *Alloplasta* Förster, 1869

***Alloplasta plantaria* (Gravenhorst, 1829)**

Material examined: Zanjan province, Abhar, 1♀, July 2003.

General distribution: Austria, Belgium, China, Finland, France, Germany, Hungary, Poland, Romania, Russia, Spain, Turkey and United Kingdom.

Genus *Banchus* Fabricius, 1798

***Banchus falcatorius* (Fabricius, 1775)**

Material examined: Fars province, Kazeroon, 2♀, August 2000.

General distribution: Eastern Palaearctic, Europe and Western Palaearctic.

***Banchus zonatus* Rudow, 1883**

Material examined: East Azarbaijan province, Maraqeh, 1♀, July 2009.

General distribution: Algeria, France, Germany, Israel, Italy, Morocco, Russia and Spain.

Genus *Cryptopimpla* Taschenberg, 1863

***Cryptopimpla caligata* (Gravenhorst, 1829)**

Material examined: Markazi province, Ashtiyan, 3♀, May 2010.

General distribution: Austria, Belgium, former Czechoslovakia, Finland, France, Georgia, Germany, Hungary, Ireland, Italy, Kazakhstan, Latvia, Lithuania, Netherlands,

Norway, Poland, Romania, Russia, Spain, Sweden, Switzerland, Turkey, Ukraine and United Kingdom.

Genus *Exetastes* Gravenhorst, 1829

***Exetastes femorator* Desvignes, 1856**

Material examined: Chaharmahal & Bakhtiari province, Lordegan, 1♀, July 2013.

General distribution: Austria, Belarus, China, former Czechoslovakia, France, Germany, Hungary, Kazakhstan, Mongolia, Netherlands, Poland, Russia, Sweden, Turkey and United Kingdom.

***Exetastes gracilicornis* Gravenhorst, 1829**

Material examined: Guilan province, Rasht, 2♀, 1♂, April 2008.

General distribution: Austria, Belarus, Belgium, China, former Czechoslovakia, Finland, France, Germany, Hungary, Italy, Kyrgyzstan, Latvia, Lithuania, Moldova, Mongolia, Netherlands, Poland, Romania, Russia, Spain, Sweden, Switzerland, Ukraine and United Kingdom.

Genus *Lissonota* Gravenhorst, 1829

***Lissonota bivittata* Gravenhorst, 1829**

Material examined: Guilan province, Roodsar, 1♀, 1♂, September 2011.

General distribution: Algeria, Bulgaria, Croatia, former Czechoslovakia, France, Germany, Hungary, Israel, Italy, Moldova, Mongolia, Poland, Romania, Spain, Turkey, Turkmenistan and former Yugoslavia.

***Lissonota dubia* Holmgren, 1856**

Material examined: Mazandaran province, Ramsar, 1♀, 1♂, June 2007

General distribution: Austria, Azerbaijan, Belgium, Bulgaria, Czech Republic, Denmark, Finland, France, Germany, Hungary, Ireland, Lithuania, Moldova, Netherlands, Norway, Poland, Romania, Russia, Sweden, Switzerland and United Kingdom.

***Lissonota deversor* Gravenhorst, 1829**

Material examined: Khuzestan province, Andimeshk, 1♀, May 2008.

General distribution: Austria, Belgium, Bulgaria, Czech Republic, Denmark, Finland, France, Germany, Hungary, Latvia, Moldova, Netherlands, Poland, Romania, South Africa, Spain, Switzerland and United Kingdom.

***Lissonota proxima* Fonscolombe, 1854**

Material examined: Khuzestan province, Gotvand, 2♀, April 2009.

General distribution: Austria, Belarus, Belgium, Bulgaria, Finland, France, Germany, Hungary, Ireland, Italy, Lithuania, Moldova, Netherlands, Norway, Poland, Romania, Russia, Spain, Sweden, Switzerland and United Kingdom.

***Lissonota variabilis* Holmgren, 1860**

Material examined: Bushehr province, Borazjan, 1♀, May 2004.

General distribution: Austria, Belgium, Bulgaria, former Czechoslovakia, Finland, France, Georgia, Germany, Hungary, Ireland, Italy, Lithuania, Moldova, Netherlands, Norway, Poland, Romania, Spain, Sweden, Switzerland, Turkey and United Kingdom.

Subfamily Campopleginae

Genus *Bathyplectes* Förster, 1869

***Bathyplectes quinqueangularis* (Ratzeburg, 1852)**

Material examined: Alborz province, Nazar-Abad, 1♀, June 2013.

General distribution: Austria, Azerbaijan, Belgium, Bulgaria, Finland, France, Germany, Hungary, Poland, Russia, Spain, Sweden, Tunisia, United Kingdom and former Yugoslavia.

***Bathyplectes stenostigma* (Thomson, 1887)**

Material examined: Guilan province, Lahijan, 1♀, October 2005.

General distribution: Austria, Bulgaria, Canada, former former Czechoslovakia, Denmark, Finland, France, Germany, Hungary, Poland, Sweden and USA.

Genus *Callidora* Förster, 1869

***Callidora albovincta* (Holmgren, 1860)**

Material examined: West Azarbaijan province, Oshnavieh, 1♀, September 2006.

General distribution: Austria, former Czechoslovakia, Finland, France, Germany, Japan, Latvia, Poland, Russia, Sweden and United Kingdom.

Genus *Campoletis* Förster, 1869

***Campoletis chlorideae* Uchida, 1957**

Material examined: Kerman province, Jiroft, 1♀, April 2010.

General distribution: Bangladesh, Barbados, China, India, Japan, Korea, Mauritius, Nepal, Pakistan and Syria.

***Campoletis crassicornis* (Tschek, 1871)**

Material examined: Chaharmahal & Bakhtiari province, Lordegan, 2♀, August 2015.

General distribution: Austria, Azerbaijan, Bulgaria, former Czechoslovakia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Norway, Poland, Romania, Russia, Spain, Sweden and United Kingdom.

Genus *Casitaria* Holmgren, 1859

***Casitaria albipalpis* (Gravenhorst, 1829)**

Material examined: Alborz province, Taleghan, 1♀, September 2007.

General distribution: Austria, former Czechoslovakia, Egypt, France, Germany, Hungary, Israel, Italy, Poland, Russia, Spain, Tunisia and United Kingdom.

Genus *Diadegma* Förster, 1869

***Diadegma contractum* (Brischke, 1880)**

Material examined: Lorestan province, Azna, 1♀, September 2014.

General distribution: Azerbaijan, Belgium, former Czechoslovakia, France, Germany, Hungary, Netherlands, Poland, Romania and Russia.

***Diadegma elishae* (Bridgman, 1884)**

Material examined: Hamadan province, Toyrserkan, 2♀, May 2010.

General distribution: Afghanistan, Austria, France, Germany, Lithuania, Moldova, Mongolia, Netherlands, Norway, Poland, Spain, Tajikistan and United Kingdom.

***Diadegma tenuipes* (Thomson, 1887)**

Material examined: Semnan province, Damghan, 1♀, 1♂, June 2012.

General distribution: Austria, Azerbaijan, Belgium, former Czechoslovakia, Denmark, Faeroe Islands, Finland, France, Germany, Hungary, Ireland, Italy, Latvia, Moldova, Mongolia, Netherlands, Norway, Poland, Romania, Russia, Sweden, Switzerland, Tunisia and United Kingdom.

***Diadegma trochanteratum* (Thomson, 1887)**

Material examined: Razavi Khorasan province, Ferdos, 1♀, August 2013.

General distribution: Azerbaijan, Belgium, Bulgaria, former Czechoslovakia, Denmark, Faeroe Islands, Finland, France, Germany, Greece, Hungary, Latvia, Moldova, Netherlands, Norway, Poland, Romania, Russia, Spain, Sweden, Tunisia, Ukraine and United Kingdom.

Genus *Echthronomas* Förster, 1869

***Echthronomas quadrinotata* (Thomson, 1887)**

Material examined: West Azarbaijan province, Mahabad, 1♀, September 2014.

General distribution: Austria, Bulgaria, Egypt, Finland, France, Germany, Hungary, Italy, Kazakhstan, Poland, Russia and Spain.

Genus *Enytus* Cameron, 1905

***Enytus apostata* (Gravenhorst, 1829)**

Material examined: Alborz province, Taleghan, 1♀, 1♂, September 2007.

General distribution: Armenia, Austria, Belgium, Bulgaria, Czech Republic, Estonia, Finland, France, Germany, Greenland, Hungary, India,

Ireland, Isle of Man, Israel, Italy, Latvia, Lithuania, Moldova, Mongolia, Netherlands, Norway, Poland, Romania, Russia, Slovakia, South Africa, Sri Lanka, Sweden, Switzerland, Turkey, Ukraine and United Kingdom.

Genus *Hyposoter* Förster, 1869

***Hyposoter dolosus* (Gravenhorst, 1829)**

Material examined: Kuhgiloyeh & Boyerahmad province, Dehdasht, 2♀, August 2011.

General distribution: Austria, Belgium, Bulgaria, Czech Republic, Finland, France, Germany, Hungary, Italy, Moldova, Netherlands, Poland, Romania, Spain, Sweden, Tunisia, Ukraine and United Kingdom.

Genus *Lathrostizus* Förster, 1869

***Lathrostizus lugens* (Gravenhorst, 1829)**

Material examined: Guilan province, Astara, 1♀, July 1998.

General distribution: Austria, Belgium, former Czechoslovakia, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Norway, Poland, Romania, Sweden, Switzerland and United Kingdom.

Genus *Lemophagus* Townes, 1965

***Lemophagus pulcher* (Szépligeti, 1916)**

Material examined: Ardabil province, Meshginshahr, 1♀, July 2009.

General distribution: Austria, Azerbaijan, France, Germany, Hungary, Italy and Switzerland.

Genus *Nemeritis* Holmgren, 1860

***Nemeritis fallax* (Gravenhorst, 1829)**

Material examined: Guilan province, Lahijan, 1♀, October 2006.

General distribution: Austria, Bulgaria, former Czechoslovakia, Finland, France, Germany, Poland, Russia, Switzerland and Ukraine.

Genus *Olesicampe* Förster, 1869

***Olesicampe fulcrans* (Thomson, 1887)**

Material examined: Hamadan province, Malayer, 1♀, June 2008.

General distribution: Austria, Belgium, former Czechoslovakia, Finland, France, Germany, Moldova, Norway, Poland, Romania, Russia and United Kingdom.

Olesicampe fulviventris (Gmelin, 1790)

Material examined: Mazandaran province, Savadkooh (Pol-e Sefid), 1♀, August 2002.

General distribution: Austria, Belgium, former Czechoslovakia, Finland, France, Germany, Hungary, Ireland, Norway, Russia, Sweden and United Kingdom.

Genus *Sinophorus* Förster, 1869

Sinophorus xanthostomus (Gravenhorst, 1829)

Material examined: Kermanshah province, Ravansar, 3♀, 2♂, May 2011.

General distribution: Eastern Palaearctic, Ethiopian, Europe, Oriental and Western Palaearctic.

Subfamily Cryptinae

Genus *Atractodes* Gravenhorst, 1829

Atractodes croceicornis Haliday, 1838

Material examined: Razavi Khorasan province, Sabzevar, 1♀, May 2009.

General distribution: Austria, Belarus, Belgium, Bulgaria, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Isle of Man, Italy, Japan, Mongolia, Netherlands, Norway, Poland, Russia, Spain, Sweden, Switzerland, United Kingdom and former Yugoslavia.

Genus *Hoplocryptus* Thomson, 1873

Hoplocryptus fugitivus (Gravenhorst, 1829)

Material examined: Chaharmahal & Bakhtiari province, Sarkhoon, 1♀, September 2012.

General distribution: Austria, Azerbaijan, Bulgaria, former Czechoslovakia, Finland, France, Germany, Hungary, Italy, Latvia, Lithuania, Moldova, Norway, Poland, Romania, Spain, Sweden, United Kingdom and former Yugoslavia.

Genus *Rhembobius* Förster, 1869

Rhembobius bifrons (Gmelin, 1790)

Material examined: Guilan province, Langrood (Liseh Rud), 1♀, May 2014.

General distribution: Azerbaijan, Bulgaria, Croatia, former Czechoslovakia, Finland, France, Germany, Hungary, Ireland, Lithuania, Luxembourg, Poland, Romania, Slovenia, Spain, Sweden, United Kingdom and former Yugoslavia.

Genus *Stilpnus* Gravenhorst, 1829

Stilpnus (Polyrhembia) tenebricosus (Gravenhorst, 1829)

Material examined: Hamadan province, Gol Tappeh, 3♀, 1♂, September 2015.

General distribution: Austria, Azerbaijan, Belgium, Bulgaria, former Czechoslovakia, Denmark, Faeroe Islands, Finland, France, Germany, Greenland, Hungary, Iceland, Ireland, Latvia, Mongolia, Netherlands, Norway, Poland, Russia, Sweden, Switzerland, USA, Ukraine, United Kingdom and former Yugoslavia.

Subfamily Ctenopelmatinae

Genus *Campodorus* Förster, 1869

Campodorus variegatus (Jurine, 1807)

Material examined: Razavi Khorasan province, Chenaran, 2♀, April 2010.

General distribution: Austria, Belgium, Bulgaria, China, Czech Republic, Finland, France, Germany, Hungary, Latvia, Lithuania, Luxembourg, Mongolia, Netherlands, Norway, Poland, Russia, Sweden, Ukraine and United Kingdom.

Genus *Hadrodactylus* Förster, 1869

Hadrodactylus indefessus (Gravenhorst, 1820)

Material examined: Golestan province, Gorgan, 1♀, June 2006.

General distribution: Belgium, Bulgaria, former Czechoslovakia, Denmark, Finland, Germany, Hungary, Ireland, Italy, Lithuania, Norway, Poland, Romania, Russia, Sweden, USA, Ukraine and United Kingdom.

Genus *Sympherta* Förster, 1869

***Sympherta montana* (Gravenhorst, 1829)**

Material examined: Kordestan province, Saqez, 1♀, July 2010.

General distribution: Austria, Belarus, Belgium, Bulgaria, former Czechoslovakia, Finland, France, Germany, Hungary, Lithuania, Netherlands, Norway, Poland, Romania, Russia, Sweden, Switzerland and United Kingdom.

***Sympherta ullrichi* (Tschek, 1869)**

Material examined: Kuhgiloyeh & Boyerahmad province, Sisakht, 3♀, August 2011.

General distribution: Austria, Bulgaria, former Czechoslovakia, Finland, France, Germany, Hungary, Lithuania, Netherlands, Norway, Poland, Russia, Sweden, Switzerland, Turkey and United Kingdom.

Genus *Syndipnus* Förster, 1869

***Syndipnus lateralis* (Gravenhorst, 1829)**

Material examined: Alborz province, Nazar-Abad, 1♀, June 2013.

General distribution: Canada, former Czechoslovakia, Finland, France, Germany, Ireland, Latvia, Netherlands, Norway, Poland, Russia, Sweden, Switzerland, USA and United Kingdom.

Genus *Xenoschesis* Förster, 1869

***Xenoschesis fulvipes* (Gravenhorst, 1829)**

Material examined: Guilan province, Lahijan, 1♀, 1♂, September 2005.

General distribution: Austria, Belarus, Belgium, Bulgaria, Czech Republic, Denmark, Finland, France, Germany, Hungary, Italy, Japan, Latvia, Lithuania, Luxembourg, Netherlands, Norway, Poland, Russia, Spain, Sweden, Switzerland, Turkey, Ukraine and United Kingdom.

***Xenoschesis (Polycinetis) ustulata* (Desvignes, 1856)**

Material examined: Mazandaran province, Savadkooh (Pol-e Sefid), 1♀, 1♂, August 2002.

General distribution: Austria, Belarus, Belgium, Bulgaria, former Czechoslovakia, Estonia, Finland, France, Georgia, Germany, Hungary, Latvia, Lithuania, Netherlands, Norway, Poland, Romania, Russia, Sweden, Switzerland, Ukraine and United Kingdom.

Subfamily Diplazontinae

Genus *Bioblapsis* Förster, 1869

***Bioblapsis polita* (Vollenhoven, 1878)**

Material examined: Golestan province, Golestan National Park, 1♀, August 2006.

General distribution: Belarus, Belgium, former Czechoslovakia, Finland, France, Germany, Hungary, Japan, Netherlands, Poland, Russia, Sweden, Ukraine and United Kingdom.

Genus *Syrphoctonus* Förster, 1869

***Syrphoctonus dimidiatus* (Schrank, 1802)**

Material examined: Mazandaran province, Ramsar, 2♀, June 2010.

General distribution: Afghanistan, Azerbaijan, Belgium, former Czechoslovakia, Finland, France, Germany, Hungary, Iceland, India, Ireland, Italy, Moldova, Mongolia, Netherlands, Norway, Poland, Romania, Russia, Sweden and United Kingdom.

Subfamily Ichneumoninae

Genus *Barichneumon* Thomson, 1893

***Barichneumon perversus* (Kriechbaumer, 1893)**

Material examined: Alborz province, Taleghan, 1♀, September 2007.

General distribution: Austria, Belarus, former Czechoslovakia, France, Germany, Hungary, Italy, Moldova, Netherlands, Poland, Romania, Russia, Spain, Switzerland and former Yugoslavia.

***Barichneumon sedulus* (Gravenhorst, 1820)**

Material examined: Northern Khorasan province, Jajarm, 3♀, June 2011.

General distribution: Afghanistan, Austria, Belarus, Belgium, Bulgaria, Denmark, France, Germany, Hungary, Italy, Latvia, Netherlands, Poland, Romania, Russia, Spain and United Kingdom.

Genus *Chasmias* Ashmead, 1900

***Chasmias motatorius* (Fabricius, 1775)**

Material examined: Hamedan province, Asad-Abad, 2♀, May, 2008.

General distribution: Austria, Belarus, Belgium, former Czechoslovakia, Denmark, Finland, France, Germany, Hungary, Ireland, Japan, Latvia, Lithuania, Luxembourg, Moldova, Netherlands, Norway, Poland, Romania, Russia, Spain, Switzerland and United Kingdom.

Genus *Crypteffigies* Heinrich, 1961

***Crypteffigies lanius* (Gravenhorst, 1829)**

Material examined: Lorestan province, Aleshtar, 2♀, May 2017.

General distribution: Austria, Belgium, Bulgaria, former Czechoslovakia, Denmark, Finland, France, Germany, Hungary, Italy, Japan, Lithuania, Netherlands, Norway, Poland, Portugal, Romania, Russia, Spain, Sweden and United Kingdom.

Genus *Diphyus* Kriechbaumer, 1890
***Diphyus bicingulatus* (Gravenhorst, 1829)**

Material examined: West Azarbaijan province, Salmas, 1♀, September 2014.

General distribution: Austria, Bulgaria, Finland, France, Germany, Hungary, Italy, Norway, Poland, Romania, Russia, Sweden and Switzerland.

***Diphyus castanopyga* (Stephens, 1835)**

Material examined: Golestan province, Golestan National Park, August 2008.

General distribution: Austria, Azerbaijan, Belgium, France, Germany, Hungary, Netherlands,

Norway, Spain, Sweden, Switzerland and United Kingdom.

Genus *Goedartia* Goie, 1841

***Goedartia alboguttata* (Gravenhorst, 1829)**

Material examined: Mazandaran province, Qaemshahr, 1♀, August 2006.

General distribution: Austria, Belarus, Belgium, Czech Republic, former Czechoslovakia, Finland, France, Germany, Hungary, Japan, Latvia, Luxembourg, Netherlands, Poland, Romania, Russia, Spain, Sweden, Switzerland, Ukraine, United Kingdom and former Yugoslavia.

Genus *Ichneumon* Linneaus, 1758

***Ichneumon pictus* Gmelin, 1790**

Material examined: Ardabil province, Meshginshahr, 1♀, July 2009.

General distribution: Azerbaijan, Belgium, Bulgaria, France, Germany, Norway, Poland, Romania and United Kingdom.

Genus *Melanichneumon* Thomson, 1893

***Melanichneumon albipictus* (Gravenhorst, 1820)**

Material examined: Fars province, Fasa, 2♀, April 2002.

General distribution: Austria, Belarus, Belgium, China, former Czechoslovakia, Finland, France, Germany, Italy, Japan, Netherlands, Poland, Romania, Russia, Taiwan, Ukraine, United Kingdom and former Yugoslavia.

Genus *Rhadinodonta* Szépligeti, 1908
***Rhadinodonta flaviger* (Wesmael, 1845)**

Material examined: West Azarbaijan province, Khoy (Bilehvar), 1♀, May 2012.

General distribution: Austria, Azerbaijan, Belarus, France, Germany, Hungary, Poland, Romania, Switzerland and former Yugoslavia.

Genus *Spilichneumon* Thomson, 1894

Spilichneumon johansonii (Holmgren, 1871)

Material examined: Isfahan province, Najaf-Abad, 2♀, July 2001.

General distribution: Austria, Belarus, Belgium, former Czechoslovakia, Finland, France, Germany, Hungary, Italy, Korea, Luxembourg, Netherlands, Norway, Poland, Romania, Russia, Sweden, Ukraine and United Kingdom.

Subfamily Metopiinae

Genus *Bremiella* Dalla Torre, 1901

Bremiella pulchella (Kriechbaumer, 1890)

Material examined: Kordestan province, Bijar, 1♀, June 2016.

General distribution: Algeria, Bulgaria, Hungary, Israel, Moldova, Russia, Switzerland, Turkey and Ukraine.

Subfamily Ophioninae

Genus *Eremotylus* Förster, 1869

Eremotylus marginatus (Jurine, 1807)

Material examined: Mazandaran province, Sari, 2♀, October 2012.

General distribution: Austria, Bulgaria, former Czechoslovakia, France, Germany, Hungary, Japan, Korea, Moldova, Netherlands, Poland, Romania, Russia, Sweden, Switzerland, Turkey, Ukraine and United Kingdom.

Subfamily Orthocentrinae

Genus *Hyperacmus* Holmgren, 1856

Hyperacmus crassicornis (Gravenhorst, 1829)

Material examined: East Azarbaijan province, Hashtrood, 3♀, September 2005.

General distribution: Austria, Azerbaijan, Belarus, Belgium, Canada, Czech Republic, Finland, France, Georgia, Germany, Hungary, India, Japan, Latvia, Lithuania, Mongolia, Netherlands, Poland, Romania, Russia, Sweden, Tajikistan, USA, Ukraine and United Kingdom.

Subfamily Pimplinae

Genus *Sinarachna* Townes, 1960

Sinarachna nigricornis (Holmgren, 1860)

Material examined: West Azarbaijan province, Miandoab (Hesarlu), 2♀, April 2013.

General distribution: Austria, Belarus, Belgium, Bulgaria, China, former Czechoslovakia, Finland, Germany, Poland, Romania, Russia, Sweden and United Kingdom.

Genus *Townesia* Ozols, 1962

Townesia tenuiventris (Holmgren, 1860)

Material examined: Qazvin province, Takestan, 2♀, 1♂, June 2005.

General distribution: Austria, Belarus, Belgium, Bulgaria, Canada, former Czechoslovakia, Denmark, Finland, France, Germany, Hungary, Japan, Latvia, Lithuania, Netherlands, Norway, Poland, Romania, Russia, Spain, Sweden, USA, United Kingdom and former Yugoslavia.

Subfamily Poemeniinae

Genus *Deuteroxorides* Viereck, 1914

Deuteroxorides elevator (Panzer, 1799)

Material examined: West Azarbaijan province, Salmas, 1♂, August 2015.

General distribution: Austria, Azerbaijan, Belarus, Belgium, Bulgaria, Czech Republic, former Czechoslovakia, Finland, France, Germany, Hungary, Italy, Latvia, Netherlands, Norway, Poland, Romania, Spain, Sweden, Switzerland, Ukraine and United Kingdom.

Genus *Poemenia* Holmgren, 1859

Poemenia hectica (Gravenhorst, 1829)

Material examined: Chaharmahal & Bakhtiari province, Shahrekod, 2♀, September 2010.

General distribution: Austria, Azerbaijan, Belarus, Belgium, Bulgaria, Czech Republic, former Czechoslovakia, Finland, France, Germany, Greece, Hungary, Italy, Japan, Latvia, Netherlands, Norway,

Poland, Romania, Russia, Spain, Sweden, Switzerland, United Kingdom and former Yugoslavia.

Subfamily Tersilochinae

Genus *Barycnemis* Förster, 1869

Barycnemis gracillima (Thomson, 1889)

Material examined: Semnan province, Shahrood, 2♀, June 2011.

General distribution: Armenia, Austria, Belarus, Belgium, Bulgaria, former Czechoslovakia, Estonia, Finland, Georgia, Germany, Hungary, Kazakhstan, Lithuania, Norway, Poland, Romania, Russia, Spain, Sweden and Ukraine.

Genus *Diaparsis* Förster, 1869

Diaparsis aperta (Thomson, 1889)

Material examined: Zanjan province, Mahneshan, 2♀, September 2015.

General distribution: Armenia, Austria, Azerbaijan, Belgium, former Czechoslovakia, Finland, France, Georgia, Germany, Kyrgyzstan, Moldova, Poland, Russia, Slovakia, Sweden, Turkey and Ukraine.

Genus *Gelanes* Horstmann, 1981

Gelanes fuscus (Holmgren, 1860)

Material examined: Mazandaran province, Sari (Citrus orchard), 2♀, October 2007.

General distribution: Austria, Belarus, Bulgaria, Finland, Germany, Hungary, Kazakhstan, Norway, Poland, Russia, Sweden and Ukraine.

Subfamily Tryphoninae

Genus *Cycasis* Townes, 1965

Cycasis rubiginosa (Gravenhorst, 1829)

Material examined: Chaharmahal & Bakhtiari province, Koohrang, 2♀, September 2010.

General distribution: Albania, Austria, Azerbaijan, Belarus, Belgium, Bulgaria, former Czechoslovakia, Finland, France, Germany, Hungary, Italy, Kazakhstan, Kyrgyzstan, Latvia, Moldova, Mongolia, Netherlands, Norway, Poland, Romania, Russia, Spain, Sweden, Switzerland,

Turkmenistan, Ukraine and United Kingdom.

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