

NEW RECORDS OF ICHNEUMONIDAE (HYMENOPTERA) FROM IRAN

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Summary. The ichneumid wasps (Hymenoptera: Ichneumonidae) have essential role in biological control of insect agricultural and forest pests. A list of 17 species in 14 genera of these parasitoids collected from different regions of Iran is given. All of them are new for the fauna of country.

Key words: Ichneumonidae, parasitoid, fauna, new records, Iran.

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Резюме. Осы-наездники (Hymenoptera: Ichneumonidae) играют важную роль в биологической борьбе с сельскохозяйственными и лесными насекомыми-вредителями. Приведен список 17 видов 14 родов этих паразитоидов, собранных из разных регионов Ирана. Все они впервые указываются для фауны страны.

INTRODUCTION

Ichneumonidae (Hymenoptera) is a large family and diverse group of parasitic wasps comprises more than 25,300 described species in 1,601 genera worldwide (Yu *et al.*, 2016) but the estimation is over 100,000 species (Gauld, 2000). These parasitoids with worldwide distribution have an important role in biological control programs of many crop pests (Gupta, 1987; Wahl, 1993; Quicke, 2015).

Faunistic knowledge of the family Ichneumonidae in Iran is largely incomplete due to the lack of regional studies and taxonomic complexity of this group in comparison with well-studied other western Palearctic countries. 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.

The purpose of this paper is to record the species of Ichneumonidae as part of ongoing faunistic studies of Ichneumonidae in Iran. In the present study, totally new 17 country records are represented.

MATERIAL AND METHODS

The materials were collected by sweeping net and Malaise traps from different regions of Iran, and killed with ethyl acetate. The specimens were mounted on triangular labels and were determined by a stereoscopic binocular microscope. The specimens were determined by the authors and are preserved in the collection of the second and fourth authors. Here we follow Yu *et al.* (2016) for nomenclature, classification and distributional data.

NEW RECORDS

In total 17 species of Ichneumonidae in 10 subfamilies Anomaloninae (one species), Banchinae (3 species in 2 genera), Campopleginae (2 species in 2 genera), Cremastinae (3 species in one genus), Cryptinae (2 species in 2 genera), Mesochorinae (one species), Metopiinae (one species), Orthocentrinae (one species), Phygadeuontinae (2 species in 2 genera), and Tryphoninae (one species) are recorded from Iran for the first time.

Subfamily Anomaloninae Viereck, 1918

Erigorgus melanobatus (Gravenhorst, 1829)

MATERIAL. **Iran:** Markazi province, Mahallat, 24.VIII 2014, 2♂.

DISTRIBUTION. Iran (new record), Belgium, Cyprus, former Czechoslovakia, Finland, Germany, Greece, Greenland, Hungary, Luxembourg, Netherlands, Poland, Romania, Spain, Sweden, Switzerland, Tajikistan, Turkey, Ukraine, United Kingdom.

Subfamily Banchinae Wesmael, 1845

Apophua evanescens (Ratzeburg, 1848)

MATERIAL. **Iran:** Khuzestan province, Andimeshk (Mazo), 5.IX 2016, 1♂, 1♀.

DISTRIBUTION. Iran (new record), Austria, Belgium, Bulgaria, China, Czech Republic, Finland, Germany, Greece, Hungary, India, Ireland, Japan, Latvia, Lithuania, Norway, Pakistan, Poland, Romania, Russia, Sweden, Switzerland, United Kingdom.

Glypta (Glypta) mensurator (Fabricius, 1775)

MATERIAL. **Iran:** Bushehr province, Dashtestan, 3.IX 2012, 3♀.

DISTRIBUTION. Iran (new record), Austria, Belarus, Belgium, Bulgaria, Czech Republic, Denmark, Finland, France, Germany, Hungary, Ireland, Isle of Man, Italy, Kazakhstan, Latvia, Lithuania, Moldova, Mongolia, Netherlands, Norway, Poland, Romania, Russia, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom.

Glypta (Glypta) teres Gravenhorst, 1829

MATERIAL. **Iran:** Fars province, Noor-Abad, 28.V 2017, 2♀.

DISTRIBUTION. Iran (new record), Austria, Belgium, Bulgaria, former Czechoslovakia, Denmark, Finland, France, Germany, Hungary, Italy, Latvia, Mongolia, Netherlands, Norway, Poland, Romania, Russia, Sweden, Switzerland, Ukraine, United Kingdom.

Subfamily Campopleginae Förster, 1869

Cymodusa (Cymodusa) leucocera Holmgren, 1859

MATERIAL. **Iran:** Khuzestan province, Shush (Hosseini-Abad), 19.V 2013, 2♀.

DISTRIBUTION. Iran (new record), Austria, Belgium, Bulgaria, Czech Republic, Estonia, Finland, France, Georgia, Germany, Hungary, Ireland, Italy, Kazakhstan, Netherlands, Norway, Poland, Romania, Russia, Sweden, Switzerland, Ukraine, United Kingdom.

Dusona carinifrons (Holmgren, 1860)

MATERIAL. **Iran:** Southern Khorasan, Sarbisheh, 11.IV 2015, 1♀.

DISTRIBUTION. Iran (new record), Austria, Belarus, Belgium, former Czechoslovakia, Estonia, Finland, France, Germany, Hungary, Ireland, Italy, Kazakhstan, Kyrgyzstan, Latvia, Moldova, Netherlands, Norway, Poland, Romania, Russia, Sweden, United Kingdom.

Subfamily Cremastinae Förster, 1869

Cremastus bellicosus Gravenhorst, 1829

MATERIAL. **Iran:** Isfahan province, Khansar (Khoshkrood), 23.VI 2014, 1♂, 2♀.

DISTRIBUTION. Iran (new record), Austria, Azerbaijan, Belgium, Bulgaria, Czech Republic, Finland, France, Germany, Hungary, Italy, Latvia, Lithuania, Moldova, Mongolia, Montenegro, Norway, Poland, Romania, Russia, Serbia, Spain, Sweden, Switzerland, Turkey, United Kingdom.

Cremastus infirmus Gravenhorst, 1829

MATERIAL. **Iran:** Isfahan province, Daran, 22.VI 2014, 2♀.

DISTRIBUTION. Iran (new record), Austria, Belgium, Bulgaria, former Czechoslovakia, Denmark, Finland, France, Germany, Hungary, Ireland, Italy, Latvia, Lithuania, Moldova, Mongolia, Montenegro, Netherlands, Norway, Poland, Romania, Russia, Serbia, Sweden, Ukraine, United Kingdom.

Cremastus spectator Gravenhorst, 1829

MATERIAL. **Iran:** Fars province, Kazeroon, 28.V 2017, 3♀.

DISTRIBUTION. Iran (new record), Austria, Belgium, Bulgaria, Czech Republic, Denmark, Finland, France, Germany, Hungary, Ireland, Italy, Lithuania, Mongolia, Montenegro, Netherlands, North Macedonia, Norway, Poland, Romania, Russia, Serbia, Spain, Sweden, Turkey, Ukraine, United Kingdom.

Subfamily Cryptinae Kirby, 1837

Atractodes (Atractodes) fumatus Haliday, 1838

MATERIAL. **Iran:** Isfahan province, Khansar (Khoshkrood), 23.VI 2014, 2♀.

DISTRIBUTION. Iran (new record), Armenia, Austria, Azerbaijan, Belarus, Bulgaria, Croatia, Denmark, Finland, France, Georgia, Germany, Greece, Hungary, Ireland, Italy, Lithuania, Netherlands, Norway, Poland, Russia, Sweden, Tunisia, Turkey, USA, Ukraine, United Kingdom, Uzbekistan.

***Polytribax arrogans* (Gravenhorst, 1829)**

MATERIAL. **Iran:** Markazi province, Khomein (Kamareh), 25.VIII 2014, 2♂.

DISTRIBUTION. Iran (new record), Albania, Austria, Belarus, Belgium, Bulgaria, former Czechoslovakia, Estonia, Finland, France, Germany, Hungary, Ireland, Italy, Japan, Latvia, Lithuania, Moldova, Netherlands, Norway, Poland, Russia, Sweden, Switzerland, United Kingdom.

Subfamily Mesochorinae Förster, 1869

***Mesochorus discitergus* (Say, 1835)**

MATERIAL. **Iran:** Khuzestan province, Shush (Hosseini-Abad), 19.V 2013, 2♀.

DISTRIBUTION. Iran (new record), Argentina, Austria, Brazil, Bulgaria, Canada, China, Costa Rica, Cuba, Czech Republic, Denmark, Ecuador, El Salvador, Finland, France, Germany, Guatemala, Hungary, India, Israel, Italy, Japan, Korea, Mexico, Moldova, Poland, Romania, Russia, South Africa, Sweden, Turkey, USA, United Kingdom, Venezuela.

Subfamily Metopiinae Förster, 1869

***Chorinaeus funebris* (Gravenhorst, 1829)**

MATERIAL. **Iran:** Khuzestan province, Laly, 18.V 2013, 2♀.

DISTRIBUTION. Iran (new record), Austria, Belgium, Bulgaria, Canada, Czech Republic, Finland, France, Germany, Hungary, Ireland, Italy, Japan, Kazakhstan, Lithuania, Moldova, Netherlands, Norway, Poland, Romania, Russia, Sweden, Switzerland, Turkey, USA, Ukraine, United Kingdom.

Subfamily Orthocentrinae Förster, 1869

***Proclitus praetor* (Haliday, 1838)**

MATERIAL. **Iran:** Isfahan province, Daran, 1♀, 22.vi.2014.

DISTRIBUTION. Iran (new record), Austria, Bulgaria, Canada, Czech Republic, Denmark, Finland, France, Germany, Hungary, Ireland, Italy, Latvia, Lithuania, Moldova, Netherlands, Norway, Poland, Romania, Russia, Sweden, Switzerland, USA, Ukraine, United Kingdom.

Subfamily Phygadeuontinae Förster, 1869

***Endasys brevis* (Gravenhorst, 1829)**

MATERIAL. **Iran:** Isfahan province, Golpaygan, 23.VI 2014, 3♀.

DISTRIBUTION. Iran (new record), Austria, Azerbaijan, Belgium, Bulgaria, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Norway, Poland, Romania, Russia, Spain, Switzerland, Turkey, United Kingdom.

***Phygadeuon subtilis* Gravenhorst, 1829**

MATERIAL. **Iran:** Khuzestan province, Bagh-Malek, 17.V 2013, 1♂, 1♀.

DISTRIBUTION. Iran (new record), Austria, Azerbaijan, Belgium, Bulgaria, Czech Republic, Denmark, Finland, France, Germany, Hungary, Ireland, Italy, Latvia, Netherlands, Norway, Poland, Romania, Russia, Slovenia, Spain, Sweden, Switzerland, United Kingdom.

Subfamily Tryphoninae Shuckard, 1840

Cosmoconus ceratophorus (Thomson, 1888)

MATERIAL. **Iran:** Bushehr province, Dashtestan, 3.IX 2012, 2♀.

DISTRIBUTION. Iran (new record), Albania, Armenia, Austria, Azerbaijan, Belarus, Belgium, Bulgaria, former Czechoslovakia, Estonia, Finland, France, Georgia, Germany, Hungary, Ireland, Italy, Latvia, Lithuania, Mongolia, Netherlands, Norway, Poland, Romania, Russia, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom.

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