# Correspondence

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**H. Ghahari[1)], R. Jussila[2)]. AN ADDITIONAL CONTRIBUTION TO THE FAUNA OF ICHNEUMONID WASPS (HYMENOPTERA: ICHNEUMONIDAE) FROM IRAN. – Far Eastern Entomologist. 2015. N 299: 18-24.**

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**Summary**. The faunistic data of ichneumonid species (Hymenoptera: Ichneumonidae) from some regions of Iran are given. In total 21 species from 20 genera and 10 subfamilies Campopleginae (1), Cremastinae (3), Cryptinae (2), Cyllocerinae (1), Ichneumoninae (5), Metopiinae (1), Orthocentrinae (1), Phrudinae (1), Pimplinae (5) and Tersilochinae (1) were collected and identified. Five species *Chromoplex picticollis* (Thomson, 1887), *Endasys erythorogaster* (Gravenhorst, 1829), *Eusterinx tenuicincta* (Förster, 1871), *Heterocola proboscidalis* (Thomson, 1889) and *Spudaeus scaber* (Gravenhorst, 1829) are new records for the fauna of Iran.

**Key words**: Hymenoptera, Ichneumonidae, fauna, new record, Iran.

**Х. Гахари[1)], Р. Юссила[2)]. Дополнения к фауне ихневмонид (Hymenoptera: Ichneumonidae) Ирана // Дальневосточный энтомолог. 2015. N 299. С. 18-24.**

**Резюме**. Приводятся новые фаунистические данные по ихневмонидам (Hymenoptera: Ichneumonidae) отдельных районов Ирана. Всего собраны и определены 21 вид из 20 родов и 10 подсемейств: Campopleginae (1 вид), Cremastinae (3), Cryptinae (2), Cyllocerinae (1), Ichneumoninae (5), Metopiinae (1), Orthocentrinae (1), Phrudinae (1), Pimplinae (5) и Tersilochinae (1). Пять видов впервые указываются для Ирана: *Chromoplex picticollis* (Thomson, 1887), *Endasys erythorogaster* (Gravenhorst, 1829), *Eusterinx tenuicincta* (Förster, 1871), *Heterocola proboscidalis* (Thomson, 1889) и *Spudaeus scaber* (Gravenhorst, 1829).

## INTRODUCTION

The Ichneumonidae is a rich family of all organisms with an estimated 60,000 species in the world (Townes, 1969). Ichneumonids are usually recognized by having 1-Rs+M absent and metasomal terga 2 and 3 articulating. The former character is apomorphic though it is also found in widely scattered groups of braconids (Quicke *et al*., 1999). The Ichneumonidae represents the largest family of Hymenoptera with 51 generally recognized subfamilies 1579 genera and 24.281 described species (Yu *et al*., 2012). The probable number of the species is estimated to be more than 100000 species, and the number of species increases rapidly in the world (Çoruh *et al*., 2014).

Ichneumonids are almost completely restricted to the immature stages of the Holometabola (a few groups use egg nests of Pseudoscorpionida, egg cocoons of Araneae or adult Araneae) (Gauld, 1988; Wahl & Sharkey, 1993). They have been used successfully as biocontrol agents and given the largely undocumented fauna there is a huge potential for their utilization in managed biocontrol programs (Gupta, 1987).

Ichneumonidae of Iran has not been studied enough, although it is one of the most interesting places in the Palaearctic Region, due to having an extremely varying topography and various kinds of climates. In the catalogue of the Iranian Ichneumonidae (Kolarov & Ghahari, 2005) only 144 species from 65 genera and 14 subfamilies were listed. This is no more than probably 1/10 of the real number of the species. After that 30 (Pimplinae, Tryphoninae), 18 (Brachycyrtinae, Cryptinae) and 63 (Ichneumoninae) species were added to this fauna by Kolarov & Ghahari (2006, 2007, 2008), respectively. Recently, Barahoei *et al*. (2012) listed 502 species belonging to 189 genera and 24 subfamilies as the fauna of Iranian Ichneumonidae.

## MATERIALS AND METHODS

The specimens of this research were collected from some regions of Iran by Malaise traps and sweeping nets, and also rearing of hosts in optimum condition (25±2 ºC, 65±5% RH, 14: 10 L: D) in incubator. The materials were put in ethanol 75%, pined or mounted on small labels and were determined. Classification, nomenclature and distribution data were taken from Yu *et al*. (2012).

## RESULTS AND DISCUSSION

In this paper totally 21 ichneumonid species from 20 genera and 10 subfamilies were collected and determined from some regions of Iran which of these 5 species, namely *Chromoplex picticollis* (Thomson, 1887), *Endasys erythorogaster* (Gravenhorst, 1829), *Eusterinx tenuicincta* (Förster, 1871), *Heterocola proboscidalis* (Thomson, 1889) and *Spudaeus scaber* (Gravenhorst, 1829) are new records for Iranian fauna. New records in this paper and also other faunistic papers on Iranian Ichneumonidae indicate that the fauna of these parasitoids was not studied in all regions of Iran perfectly. So conducting the faunistic surveys are necessary for determining of these beneficial insects. Faunistic surveys will enable the identification of hotspots of species richness; essential base line data that will enable informed future conservation management programs. Regarding to other countries for example Finland with more than 2,700 ichneumonid species (Jussila, 2013) and with attention to expanse, various geographical regions and climates in Iran, the fauna of Iranian Ichneumonidae is surely more than 1500 species. On the other hand, the ichneumonids are widely studied because they are important agents of biological control of many groups of insects, including some agricultural, horticultural, and forest pests. We do not know the hosts for most ichneumonid species in Iran, because they have rarely been reared; instead the adults were taken at light or collected in nets or traps which are easily collected in Malaise traps or by sweeping with nets.

### Subfamily Campopleginae Förster, 1869

### Genus *Chromoplex* Horstmann, 1986

***Chromoplex picticollis* (Thomson, 1887)**

MATERIAL EXAMINED. Kordestan province, Bijar, 35°52′N 47°36′E, 1♀, June 2012.

DISTRIBUTION. Iran (**new record**), Austria, Bosnia-Hercegovina, Bulgaria, Croatia, Egypt, France, Greece, Hungary, Israel, Italy, Turkey, Ukraine.

### Subfamily Cremastinae Förster, 1869

### Genus *Pristomerus* Curtis, 1836

***Pristomerus horribilis* Narolsky, 1987**

MATERIAL EXAMINED. Mazandaran province, Amol, 36°28′N 52°21′E, 1♀, April 2010.

DISTRIBUTION. Bulgaria, Czech Republic, Germany, Iran, Poland, Switzerland, Turkey, Ukraine.

**Genus *Temelucha* Förster, 1869**

***Temelucha lucida* (Szépligeti, 1899)**

MATERIAL EXAMINED. Fars province, Abadeh, 31°15′N 52°30′E, 2♀, 1♂, November 2012.

DISTRIBUTION. Bulgaria, Czech Republic, Greece, Hungary, Iran, Italy, Moldova, Romania, Russia, Turkey.

***Temelucha observator* Aubert, 1966**

MATERIAL EXAMINED. Kerman province, Jiroft, 28°50′N 57°35′E, 2♀, summer 2010.

DISTRIBUTION. Afghanistan, Egypt, Iran, Israel, Italy, Libya, Morocco, Romania, Tunisia, Turkey.

**Subfamily Cryptinae Kirby, 1837**

**Genus *Endasys* Förster, 1869**

***Endasys erythorogaster* (Gravenhorst, 1829)**

MATERIAL EXAMINED. West Azarbaijan province, Mahabad, 36°46′N 45°44′E, 1♂, June 2011.

DISTRIBUTION. Iran (**new record**), Austria, Azerbaijan, Belgium, Bulgaria, Czech Republic, Denmark, Finland, France, Germany, Hungary, Ireland, Italy, Latvia, Lithuania, Netherlands, Norway, Poland, Romania, Slovakia, Spain, Sweden, Turkey, UK.

**Genus *Xylophrurus* Förster, 1869**

***Xylophrurus nigricornis* (Thomson, 1885)**

MATERIAL EXAMINED. East Azarbaijan province, Mianeh, 37°25′N 47°42′E, 1♂, September 2014.

DISTRIBUTION. France, Iran, Turkey.

**Subfamily Cyllocerinae Wahl, 1990**

**Genus *Cylloceria* Schiødte, 1838**

***Cylloceria melancholica* (Gravenhorst, 1820)**

MATERIAL EXAMINED. Mazandaran province, Ramsar, 36°47′N 50°32′E, 3♀, August 2010.

DISTRIBUTION. Austria, Azerbaijan, Belarus, Belgium, Bulgaria, Canada, China, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Hungary, Iran, Ireland, Italy, Kyrgyzstan, Latvia, Lithuania, Luxemburg, Mongolia, Netherlands, Norway, Poland, Romania, Russia, Serbia & Montenegro, Spain, Sweden, Switzerland, Turkey, USA, Ukraine, UK, former Yugoslavia.

### Subfamily Ichneumoninae Latreille, 1802

### Genus *Barichneumon* Thomson, 1893

***Barichneumon bilunulatus* (Gravenhorst, 1829)**

MATERIAL EXAMINED. Golestan province, Kalaleh, 37°43′N 55°49′E, 1♀, 1♂, May 2009.

DISTRIBUTION. Algeria, Andorra, Austria, Azerbaijan, Belarus, Belgium, Bulgaria, Croatia, Czech Republic, Finland, France, Georgia, Germany, Greece, Hungary, Iran, Ireland, Italy, Kazakhstan, Latvia, Luxemburg, Morocco, Netherlands, Poland, Portugal, Romania, Russia, Spain, Switzerland, Tunisia, Turkey, UK, former Yugoslavia.

### Genus *Centeterus* Wesmael, 1845

***Centeterus confector* (Gravenhorst, 1859)**

MATERIAL EXAMINED. West Azarbaijan province, Salmas, 38°11′N 44°44′E, 1♂, June 2011.

DISTRIBUTION. Austria, Azerbaijan, Belgium, China, Czech Republic, Estonia, Finland, France, Germany, Hungary, Iran, Ireland, Italy, Lithuania, Moldova, Netherlands, Norway, Poland, Romania, Russia, Spain, Sweden, Switzerland, UK.

### Genus *Diadromus* Wesmael, 1845

***Diadromus collaris* (Gravenhorst, 1829)**

MATERIAL EXAMINED. Mazandaran province, Savadkooh, 36°05′N 52°55′E, 1♀, 1♂, October 2014.

DISTRIBUTION. Afghanistan, Andorra, Australia, Austria, Azerbaijan, Azores, Bangladesh, Belgium, Bulgaria, Canary Islands, China, Czech Republic, Czech Republic, Fiji, Finland, France, Germany, Greece, India, Iran, Israel, Italy, Japan, Madeira Islands, Malaysia, Mexico, Moldova, Netherlands, New Zealand, Pakistan, Poland, Portugal, Romania, Serbia, South Africa, Spain, Sweden, Tajikistan, Thailand, Tunisia, Turkey, Turkmenistan, Ukraine, UK, former Yugoslavia.

### Genus *Eurylabus* Wesmael, 1845

***Eurylabus tristis* (Gravenhorst, 1829)**

MATERIAL EXAMINED. Ardabil province, Khalkhal, 37°37′N 48°32′E, 2♀, 1♂, September 2013.

DISTRIBUTION. Austria, Azerbaijan, Belgium, Czech Republic, Finland, France, Germany, Iran, Ireland, Kazakhstan, Netherlands, Norway, Poland, Russia, Spain, Sweden, UK.

### Genus *Virgichneumon* Heinrich, 1977

***Virgichneumon albosignatus* (Gravenhorst, 1829)**

MATERIAL EXAMINED. Guilan province, Astara, 38°20′N 48°46′E, 1♀, July 2011.

DISTRIBUTION. Afghanistan, Andorra, Austria, Azerbaijan, Belarus, Belgium, Bulgaria, China, Croatia, Czech Republic, Finland, France, Germany, Hungary, Iran, Italy, Japan, Kazakhstan, Latvia, Lithuania, Luxembourg, Moldova, Mongolia, Netherlands, Norway, Poland, Romania, Russia, Slovakia, Spain, Sweden, Switzerland, Turkey, Ukraine, UK.

## Subfamily Metopiinae Förster, 1869

### Genus *Spudaeus* Gistel, 1848

***Spudaeus scaber* (Gravenhorst, 1829)**

MATERIAL EXAMINED. Ardabil province, Astara, 38°20′N 48°46′E, 1♀, July 2011. Larval parasitoid of *Tathorhyncus* sp. (Lepidoptera: Noctuidae).

DISTRIBUTION. Iran (**new record**), Austria, Bulgaria, Canada, Czech Republic, Finland, France, Germany, Hungary, Italy, Kazakhstan, Latvia, Lithuania, Norway, Poland, Romania, Russia, Spain, Sweden, Turkey, USA, Ukraine.

## Subfamily Orthocentrinae Förster, 1869

### Genus *Eusterinx* Förster, 1869

***Eusterinx tenuicincta* (Förster, 1871)**

MATERIAL EXAMINED. East Azarbaijan province, Tabriz, 38°05′N 46°17′E, 1♀, August 2010.

DISTRIBUTION. Iran (**new record**), Austria, Bulgaria, Canada, Finland, France, Germany, Hungary, Japan, Netherlands, Norway, Poland, Russia, Sweden, USA, Ukraine, UK.

## Subfamily Phrudinae Townes et Townes, 1949

### Genus *Phaestacoenitus* Smits van Burgst, 1913

***Phaestacoenitus caucasicus* Kasparyan, 1983**

MATERIAL EXAMINED. Ardabil province, Khalkhal, 37°37′N 48°32′E, 1♂, September 2013.

DISTRIBUTION. Azerbaijan, Georgia, Iran, Turkey.

## Subfamily Pimplinae Wesmael, 1845

### Genus *Ephialtes* Schrank, 1802

***Ephialtes manifestator* (Linnaeus, 1758)**

MATERIAL EXAMINED. Golestan province, Kalaleh, 37°43′N 55°49′E, 2♀, May 2009.

DISTRIBUTION. Austria, Azerbaijan, Belarus, Belgium, Bulgaria, Canada, China, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, India, Iran, Ireland, Italy, Japan, Kazakhstan, Latvia, Lithuania, Morocco, Netherlands, Norway,

Poland, Romania, Russia, Serbia & Montenegro, Slovenia, Spain, Sweden, Switzerland, Tajikistan, Turkey, USA, Ukraine, UK, former Yugoslavia.

### Genus *Megaetaira* Gauld et Dubois, 2006

***Megaetaira madida* (Haliday, 1838)**

MATERIAL EXAMINED. Kordestan province, Bijar, 35°52′N 47°36′E, 1♀, June 2012.

DISTRIBUTION. Armenia, Austria, Belarus, Bulgaria, Czech Republic, Finland, France, Germany, Hungary, Iran, Ireland, Italy, Poland, Romania, Russia, Spain, Sweden, Turkey, UK.

### Genus *Perithous* Holmgren, 1859

***Perithous septemcinctorius* (Thunberg, 1822)**

MATERIAL EXAMINED. Golestan province, Kordkoy, 36°41′N 54°12′E, 1♀, May 2010.

DISTRIBUTION. Austria, Azerbaijan, Belarus, Belgium, Bulgaria, China, Croatia, Czech Republic, Finland, France, Georgia, Germany, Hungary, Iran, Ireland, Italy, Kazakhstan, Lithuania, Macedonia, Moldova, Netherlands, Norway, Poland, Romania, Russia, Serbia & Montenegro, Spain, Sweden, Switzerland, Turkey, USA, Ukraine, UK, former Yugoslavia.

### Genus *Pimpla* Fabricius, 1804

***Pimpla illecebrator* (Villers, 1789)**

MATERIAL EXAMINED. Ardabil province, Khalkhal, 37°37′N 48°32′E, 3♀, September 2013.

DISTRIBUTION. Austria, Azerbaijan, Belgium, China, Croatia, Czechoslovakia, France, Germany, Hungary, Iran, Italy Japan, Kazakhstan, Kyrgyzstan, Lithuania, Mongolia, Poland, Romania, Russia, Spain, Switzerland, Turkey, Ukraine, UK, Uzbekistan.

### Genus *Scambus* Hartig, 1838

***Scambus nigricans* (Thomson, 1877)**

MATERIAL EXAMINED. Guilan province, Lahijan, 37°14′N 50°02′E, 2♀, 1♂, June 2013. East Azarbaijan province, Mianeh, 37°25′N 47°42′E, 1♀, September 2014.

DISTRIBUTION. Albania, Algeria, Austria, Azerbaijan, Belarus, Belgium, Bulgaria, Croatia, Czech Republic, Finland, France, Germany, Hungary, Iran, Ireland, Italy, Kazakhstan, Latvia, Moldova, Mongolia, Netherlands, Norway, Poland, Romania, Russia, Serbia & Montenegro, Spain, Sweden, Switzerland, Turkey, Ukraine, UK, Uzbekistan, former Yugoslavia.

## Subfamily Tersilochinae Schmiedeknecht, 1910

### Genus *Heterocola* Förster, 1869

***Heterocola proboscidalis* (Thomson, 1889)**

MATERIAL EXAMINED. East Azarbaijan province, Tabriz, 38°05′N 46°17′E, 1♀, August 2010.

DISTRIBUTION. Iran (**new record**), Austria, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Kazakhstan, Moldova, Mongolia, Norway, Poland, Romania, Russia, Serbia & Montenegro, Spain, Sweden, Tunisia, Ukraine.

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