

Linzer biol. Beitr.	43/1	753-758	25.7.2011
---------------------	------	---------	-----------

A study on the ichneumonid wasps (Hymenoptera: Ichneumonidae) from some regions of Iran

H. GHAHARI & R. JUSSILA

Abstract: The fauna of six subfamilies of Ichneumonidae (Cremastinae, Ichneumoninae, Pimplinae, Rhyssinae, Tersilochinae and Tryphoninae) from some regions of Iran is studied in this paper. In total 37 species from 25 genera were identified. Of these two pimpline species including, *Mesoleptus scrutator* (HALIDAY) and *Schizopyga podagrica* GRAVENHORST) are new records for the fauna of Iran.

Key words: Hymenoptera, Ichneumonidae, Fauna, New record, Iran.

Introduction

Ichneumon wasps (Hymenoptera: Ichneumonidae) are important parasitoids of other insects, especially several agricultural pests. Common hosts are larvae and pupae of Coleoptera, Hymenoptera and Lepidoptera and therefore these parasitoids have efficient roles in biological control of pests (GUPTA 1987; TOWNES 1972). There are over 60,000 ichneumonid species worldwide (TOWNES 1969; GAULD 1991). The fauna of these beneficial insects is very diverse and on the other hand mostly unknown from Iran. This project was established by the senior author together with Dr. J. Kolarov and J. Sedivy in 2003 and some papers have been published (e.g. KOLAROV & GHAHARI, 2005, 2006, 2007, 2008; GHAHARI & JUSSILA 2010a, b, c; GHAHARI et al. 2010a, b), and other data are progressed. The objective of this paper is determining ichneumonids in some regions of Iran, towards completing the study of the Iranian ichneumonids' fauna step by step.

Materials and Methods

This study is based upon the materials of Ichneumonidae collected from different regions of Iran. The materials were collected by sweeping net with 50 cm in diameter and malaise traps. Additionally many collected specimens by the students of the first author and also many specimens of insect collection of some universities were checked. The materials were identified by Dr. J. Sedivy of Czech Republic. In this paper, classification and nomenclature suggested by KASPARYAN (1981), YU & HORSTMANN (1997) and YU et al. (2005) have been followed.

Results

In total, 37 species of Ichneumonidae of the subfamilies Cremastinae (10), Ichneumoninae (7), Pimplinae (4), Rhyssinae (3), Tersilochinae (2) and Tryphoninae (11) were collected and identified from different regions of Iran. The list of species is given below.

Family Ichneumonidae

Subfamily Cremastinae

***Cremastus pungens* GRAVENHORST 1829**

Material examined: West Azarbayjan province: Piranshahr, 5 ♀ ♀, July 2006.

***Eucremastus collaris* NAROLSKY 1990**

Material examined: Ardabil province: Gergy, 1 ♀, August 2006.

***Pristomerus armatus* (LUCAS 1849)**

Material examined: Golestan province: Bandar-Torkman, 1 ♀, October 2007.

***Pristomerus mesopotamicus* HORSTMANN 1990**

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

***Temelucha caudata* (SZÉPLIGETI 1899)**

Material examined: Kordestan province: Marivan, 1 ♀, September 2007.

***Temelucha decorata* (GRAVENHORST 1829)**

Material examined: Khorasan province: Kashmar, 1 ♀, August 2008.

***Temelucha discoidalis* (SZÉPLIGETI 1899)**

Material examined: West Azarbayjan province: Salmas, 1 ♂, July 2006.

***Temelucha interruptor* (GRAVENHORST 1829)**

Material examined: West Azarbayjan province: Oshnavieh, 1 ♀, July 2006.

***Temelucha signata* (HOLMGREN 1860)**

Material examined: Kordestan province: Marivan, 1 ♀, September 2007.

***Temelucha tricolorata* SEDIVY 1968**

Material examined: Khorasan province: Kashmar, 1 ♀, August 2008.

Subfamily **I c h n e u m o n i n a e**

***Stenobarichneumon citator* (THUNBERG 1822)**

M a t e r i a l e x a m i n e d : Ardabil province: Germy, 1♂, 2♀, August 2006.

***Ichneumon vafer* TISCHBEIN 1876**

M a t e r i a l e x a m i n e d : East Azarbayjan province: Arasbaran, 1♂, July 2007.

***Tycherus ophtalmicus* (WESMAEL 1845)**

M a t e r i a l e x a m i n e d : East Azarbayjan province: Arasbaran, 2♂♂, July 2007.

***Protichneumon pisorius* (LINNAEUS 1758)**

M a t e r i a l e x a m i n e d : Khorasan province: Kashmar, 2♂♂, 2♀♀, August 2008.

***Hemichneumon subdolos* WESMAEL 1857**

M a t e r i a l e x a m i n e d : West Azarbayjan province: Maco, 1♂, 1♀, June 2006.

***Diadromus collaris* (GRAVENHORST 1829)**

M a t e r i a l e x a m i n e d : Golestan province: Minoodasht, 2♀♀, October 2007.

***Virgichneumon albosignatus* (GRAVENHORST 1893)**

M a t e r i a l e x a m i n e d : Khorasan province: Serakhs, 1♀, March 2008.

Subfamily **P i m p l i n a e**

***Exeristes arundinis* (KRIECHBAUMER 1887)**

M a t e r i a l e x a m i n e d : Golestan province: Bandar-Torkman, 1♀, August 2008.

***Mesoleptus scrutator* (HALIDAY 1839)**

M a t e r i a l e x a m i n e d : West Azarbayjan province: Maco, 2♀♀, 2♂♂, June 2006. **New record for Iran.**

***Scambus foliae* (CUSHMAN 1938)**

M a t e r i a l e x a m i n e d : East Azarbayjan province: Arasbaran, 1♂, September 2007.

***Schizopyga podagrica* GRAVENHORST 1829**

M a t e r i a l e x a m i n e d : Kordestan province: Bijar, 1♀, April 2005. **New record for Iran.**

Subfamily **R h y s s i n a e**

***Megarhyssa superba* (SCHRANK 1781)**

M a t e r i a l e x a m i n e d : East Azarbayjan province: Jolfā, 1♂, 1♀, July 2007.

***Rhyssa amoena* GRAVENHORST 1829**

M a t e r i a l e x a m i n e d : Ilam province: Ilam, 3♂♂, 1♀, April 2006.

***Rhyssa persuasoria* (LINNAEUS 1758)**

M a t e r i a l e x a m i n e d : Isfahan province: Isfahan, 1♂, 1♀, June 2008.

Subfamily T e r s i l o c h i n a e

***Aneuclis incidens* (THOMSON 1889)**

M a t e r i a l e x a m i n e d : Mazandaran province: Savadkooh, 2♀♀, September 2006.

***Diaparsis (Diaparsis) jucunda* (HOLMGREN 1860)**

M a t e r i a l e x a m i n e d : Guilan province: Lahijan, 1♀, July 2006.

Subfamily T r y p h o n i n a e

***Ctenochira marginata* (HOLMGREN 1855)**

M a t e r i a l e x a m i n e d : East Azarbayjan province: Kaleibar, 2♀♀, July 2007.

***Ctenochira propinqua* (GRAVENHORST 1829)**

M a t e r i a l e x a m i n e d : Mazandaran province: Savadkooh, 5♂♂, 2♀♀, October 2008.

***Erromenus calcator* (MÜLLER 1776)**

M a t e r i a l e x a m i n e d : Isfahan province: Isfahan, 2♂♂, 1♀, June 2008.

***Grypocentrus albipes* RUTHE 1855**

M a t e r i a l e x a m i n e d : Kordestan province: Sanandaj, 1♂, September 2007.

***Neleges proditor* (GRAVENHORST 1829)**

M a t e r i a l e x a m i n e d : Ardabil province: Germy, 1♀, 1♀, August 2006.

***Polyblastus (Polyblastus) carbonator* KASPARYAN 1970**

M a t e r i a l e x a m i n e d : Kordestan province: Sanandaj, 2♂♂, 1♀, September 2007.

***Polyblastus (Labroctonus) alternans* SCHIODTE 1839**

M a t e r i a l e x a m i n e d : Isfahan province: Isfahan, 1♂, June 2008.

***Tryphon (Tryphon) caucasicus* KASPARYAN 1969**

M a t e r i a l e x a m i n e d : East Azarbayjan province: Jolfa, 1♂, 1♀, July 2007.

***Tryphon (Tryphon) latrator* (FABRICIUS 1781)**

M a t e r i a l e x a m i n e d : Mazandaran province: Behshahr, 1♂, October 2008.

***Tryphon (Stenocrotaphon) nigrinus* BRISCHKE 1871**

M a t e r i a l e x a m i n e d : Khorasan province: Serakhs, 1♀, March 2008.

***Tryphon (Symboethus) heliophilus* GRAVENHORST 1829**

M a t e r i a l e x a m i n e d : Guilan province: Lahijan, 1♀, September 2008.

Discussion

The fauna of Ichneumonidae as one of the powerful parasitoids of various agricultural pests was poorly studied all over the world exception a few regions e.g. Europe, North America and Costa Rica. Also with attention to estimation as 60,000 species worldwide, many more species remain to be discovered from different regions especially Africa, south eastern Asia and other parts of south Americas. The fauna of Iranian Ichneumonidae was poorly studied too. Since Iran is a large country with various geographical regions and climates, it is expected a diverse fauna of ichneumonids will be discovered in Iran with estimation 600 species and subspecies. This paper and other papers of the first author which were published recently (see references) are a part of huge project which deals with the fauna of Iranian Ichneumonidae.

Acknowledgments

The authors are indebted to Dr. J. Sedivy (Research Institute for Crop Protection, Czech Republic), Dr. J. Kolarov (University of Plovdiv, Bulgaria) for valuable help in progress of the project. The research was supported by Islamic Azad University and University of Turku (Finland).

Zusammenfassung

Hymenopterologische Aufsammlungen in verschiedenen Regionen des Irans betreffend 6 Unterfamilien von Ichneumonidae (Hymenoptera: Cremastinae, Ichneumoninae, Pimplinae, Rhyssinae, Tersilochinae and Tryphoninae) ergaben 37 Arten aus 25 Gattungen. Zwei Vertreter der Pimplinae: *Mesoleptus scrutator* (HALIDAY) and *Schizopyga podagrica* (GRAVENHORST) sind Erstnachweise für den Iran.

References

- GAULD I.D. (1991): The Ichneumonidae of Costa Rica, 1. — *Memoirs of the American Entomological Institute* **47**: 1-589.
- GHAHARI H., JUSSILA R., KOLAROV J. & J. SEDIVY (2010a): A contribution to the ichneumon wasps (Hymenoptera: Ichneumonidae) from the forests of northern Iran. — *Munis Entomology & Zoology* **5** (1): 85-89.
- GHAHARI H., JUSSILA R. & J. SEDIVY (2010b): A contribution to subfamilies Cremastinae, Cryptinae and Phuridinae from Northwestern Iran. — *Linzer biologische Beiträge* **42** (2): 1385-1393.
- GHAHARI H. & R. JUSSILA (2010a): Some new records of Iranian Ichneumoninae (Hymenoptera: Ichneumonidae). — *Linzer biologische Beiträge* **42** (2): 1373-1377.

- GHAHARI H. & R. JUSSILA (2010b): A contribution to the Ichneumon wasps (Hymenoptera: Ichneumonidae) from Golestan National Park and vicinity, Northeastern Iran. — *Linzer biologische Beiträge* **42** (2): 1379-1384.
- GHAHARI H. & R. JUSSILA (2010c): A contribution to the knowledge of ichneumon wasps (Hymenoptera: Ichneumonidae) from Iranian cotton fields and surrounding grasslands. *Zoosystematica Rossica* **19** (2): 357-360.
- GUPTA V.K. (1987): The Ichneumonidae of the Indo-Australian area (Hymenoptera). — *Memoirs of the American Entomological Institute* **41** (1-2): 1-1210.
- KASPARYAN D.R. (1981): Opredelitel Nasekomich Europeiskoy Casti U.S.S.R. III. part. Pereponchato-krylye 3. Opredelitel Fauny SSSR. Nauka, Moscow-Leningrad, pp. 1-688. [In Russian].
- KOLAROV J. & H. GHAHARI (2005): A catalogue of Ichneumonidae (Hymenoptera) from Iran. — *Linzer biologische Beiträge* **37** (1): 503-532.
- KOLAROV J. & H. GHAHARI (2006): A study of the Iranian Ichneumonidae (Hymenoptera): I. Pimplinae and Tryphoninae. — *Zoology in the Middle East* **38**: 69-72.
- KOLAROV J. & H. GHAHARI (2007): A study of the Iranian Ichneumonidae (Hymenoptera): II. Brachycyrtinae and Cryptinae. — *Journal of Zoology in the Middle East* **42**: 79-82.
- KOLAROV J. & H. GHAHARI (2008): A study of the Iranian Ichneumonidae (Hymenoptera). III. Ichneumoninae. — *Acta entomologica serbica* **13** (1-2): 61-76.
- TOWNES H. (1969): The genera of Ichneumonidae, part 1. — *Memoirs of the American Entomological Institute* **11**: 1-300.
- TOWNES H.K. (1972): Ichneumonidae as biological control agents. — *Proceedings of the Tall Timbers Conference on Ecological Animal Control by Habitat Management 1971*: 235-248.
- YU D.S. & K. HORSTMANN (1997): A catalogue of world Ichneumonidae (Hymenoptera). — *Memoirs of the American Entomological Institute* **58** (1-2): 1558 pp.
- YU D.S., ACHTERBERG K. & K. HORSTMANN (2005): *World Ichneumonidae 2004 – Taxonomy, Biology, Morphology and Distribution*. — DVD/CD. Taxapad. Vancouver, Canada. <http://www.taxapad.com>.

Author's addresses:

Hassan GHAHARI
Department of Agriculture
Islamic Azad University, Shahre Rey Branch
Tehran, Iran
E-mail: hghahari@yahoo.com

Reijo JUSSILA
Zoological Museum, Section of Biodiversity and Environmental
Sciences, Department of Biology
FI-20014 University of Turku Finland
E-mail: reijo.jussila@utu.fi

ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: [Linzer biologische Beiträge](#)

Jahr/Year: 2011

Band/Volume: [0043_1](#)

Autor(en)/Author(s): Ghahari Hassan, Jussila Reijo

Artikel/Article: [A study on the ichneumonid wasps \(Hymenoptera: Ichneumonidae\) from some regions of Iran 753-758](#)