

### On the presence of the subfamily Epitraninae (Hymenoptera: Chalcidoidea, Chalcididae) in Iran

The family Chalcididae (Hymenoptera: Chalcidoidea) contains five subfamilies (Noyes 2017) only three of which have been reported from Iran (Lotfalizadeh et al. 2012). It contains 61 species in 16 genera including Chalcidinae with 37.7% of species, Dirhininae with 8.2% of species and Haltichellinae with 54.1% of species (Tavakoli Roodi et al. 2016).

Chalcididae, whose known hosts encompass Lepidoptera, Diptera, Hymenoptera, Coleoptera, Neuroptera and Strepsiptera, are primary parasitoids, but few species are facultative or obligatory hyperparasitoids (Bouček 1982, Lotfalizadeh et al. 2012, Aydoğdu 2014, Lotfalizadeh & Jafari-Nadushan 2015). In spite of its high economic importance, Chalcididae is poorly known in the Middle East; only 61 species from Iran (Lotfalizadeh et al. 2012, Kazemi & Lotfalizadeh 2014, Tavakoli Roodi et al. 2016), 41 species from Turkey, 31 species from Israel and five species from Iraq are known (Noyes 2017).

This communication is the second publication of the authors' investigation on the Chalcidoidea of Khuzestan province in South-Western Iran (Moravvej et al. 2016), which exclusively reports a new subfamily for the fauna of Iran, viz. Epitraninae of the family Chalcididae.

Collecting and preserving methods were introduced in our first contribution (Moravvej et al. 2016). Terminology follows Bouček (1982).

#### Systematics

##### Epitraninae Burks, 1936

Epitraninae includes only the genus *Epitranus* with 68 nominal species (Noyes 2017) which are probably native of the

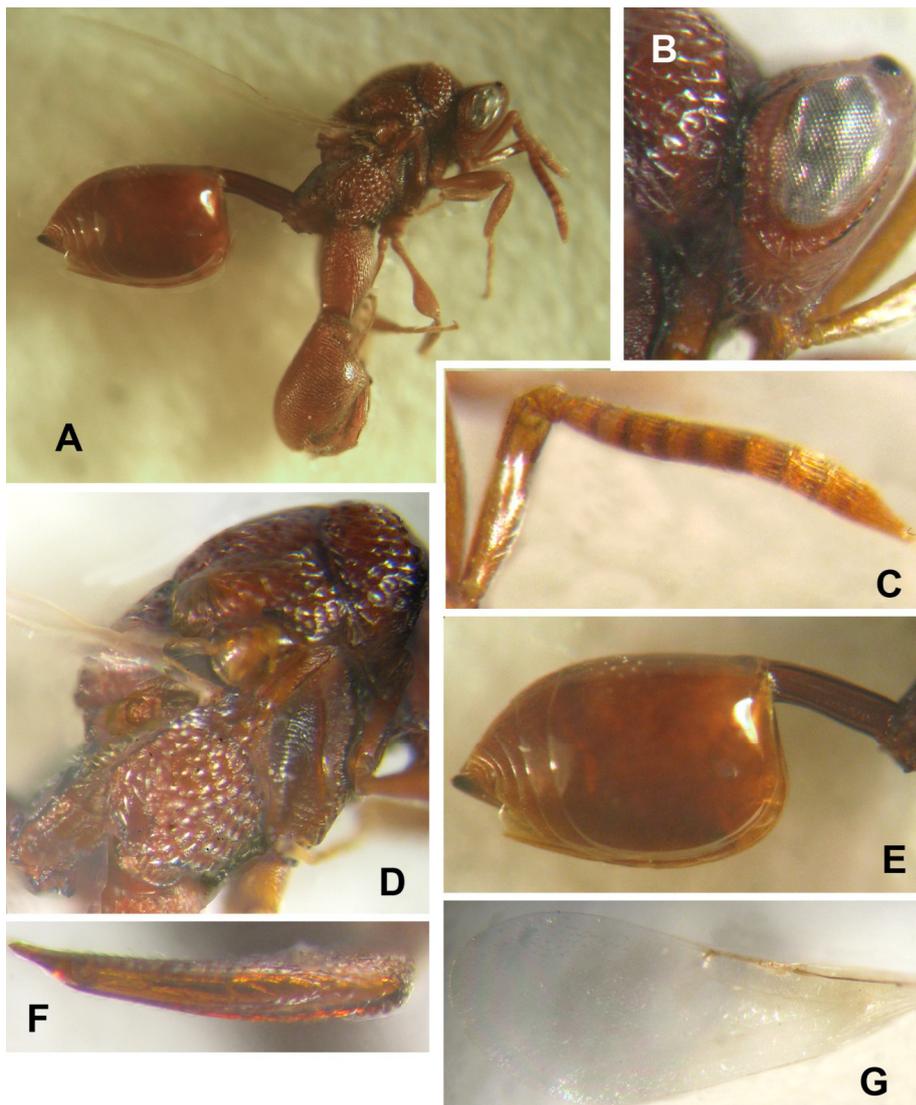


Figure 1. Female *Epitranus clavatus*. A. Body, lateral view. B. Head, lateral view. C. Antenna. D. Mesosoma, lateral view. E. Metasoma, lateral view. F. Hind tarsus, indicating carinate sulcus, ventral view. G. Fore wing, dorsal view.

Old World and were introduced to Nearctic and Neotropical regions (Bouček 1982). The hosts of Epitraninae are also little known but records suggest they parasitize lepidopterous pests associated with stored products such as Tineidae and Pyralidae (Bouček 1982).

#### Genus *Epitranus* Walker, 1834

##### *Epitranus clavatus* (Fabricius, 1804) (Figs. 1A-G)

*Chalcis clavata* Fabricius, 1804

*Epitranus fulvescens* Walker, 1834

*Epitranus lacteipennis* Cameron, 1883

*Anacryptus insidiosus* Masi, 1917

*Anacryptus anpingius* Masi, 1933

*Anacryptus cawnporensis* Mani & Dubey, 1973

**Material Examined:** Iran, Khuzestan province, Ahwaz, Chamran University campus, July 2017, Yellow pan trap, S. A. Moravvej leg., 1 ♀. Deposited in the Insect Collection of Chamran University, Ahwaz.

**Diagnostic features:** Body mainly reddish (Fig. 1A), with some slightly dark parts; thorax with regular punctuations (Fig. 1D), without patches of hairs, interspaces finely granulate or partly obliterated; hind femur with fewer than 15 teeth which are relatively broader and less regular than in *albipennis* and *nitens*, hind tibia with strong angulate subbasal tooth, crenulate under hairs and tarsal sulcus with distinct oblique carina, extending over more than 3/4 up towards subbasal tooth (Fig. 1F); hind coxae ventrally with very coarse but not very dense punctuations (Fig. 1A); propodeum dull, with distinct granulate sculpture, also interstices on thorax (at least partly) and bottoms of punctures with distinct reticulation, propodeal areolae very dull with reticulation, but thorax and occiput slightly shiny; in female petiole dorsally flattened and only up to 3 times as long as broad (Fig. 1E); forewing hyaline with strongly reduced pilosity (Fig. 1G), virtually absent below marginal vein, especially not forming any distinct hairline recurrent from stigmal vein, venation distinct, pigmented, costal cell about 2 times as long as marginal vein.

Biology of our examined specimens is unknown in Iran, but outside it has been recorded from *Tinea* sp., *T. antricola* Meyrick, *T. palaechrysis* Meyrick and *Crypsithyris* sp. (Lepidoptera, Tineidae) (Noyes 2017) thus, its hosts seem to be small Lepidoptera, possibly associated with some tropical, probably stored products (Bouček 1982).

**Geographical distribution:** This species has been recorded from Oriental (India, Malaysia Taiwan), Nearctic (USA) and Neotropical (Brazil, Guyana) regions (Bouček 1982, Noyes 2017); this is a new record of species from Iran. Our finding of this species from southern part of Iran (Khuzestan) that located between Oriental and Afrotropical regions seems ordinary. Bouček (1982) believes this species is native in the Old World tropics, possibly in South Asia, but was repeatedly introduced to parts of tropical America.

**Acknowledgements.** We would like thank Research Deputy of Shahid Chamran University for financial help and reviewers for the comments on the manuscript.

#### References

Aydoğdu, M. (2014): Parasitoid abundance of *Archips rosana* (Linnaeus, 1758) (Lepidoptera: Tortricidae) in organic cherry orchards. North-Western Journal of Zoology 10(1): 42-47.

Bouček, Z. (1982): Oriental chalcid wasps of the genus *Epitranus*. Journal of Natural History 16: 577-622.

Kazemi, M.-H., Lotfalizadeh, H. (2014): *Hockeria magna* Bouček (Hymenoptera: Chalcididae): New record to Iranian chalcidid fauna. North-Western Journal of Zoology 10 (1): 183-186.

Lotfalizadeh, H., Ebrahimi, E., Delvare, G. (2012): A contribution to the knowledge of family Chalcididae (Hymenoptera: Chalcidoidea) in Iran. Journal of Entomological Society of Iran 31(2): 67-100.

Lotfalizadeh, H., Jafari-Nadushan, A. (2015): New records of two rare species of the family Chalcididae (Hymenoptera: Chalcidoidea) in Iran, with data on their associations. Acta Zoologica Bulgarica 67(2): 297-298.

Moravvej, S. A., Shishehbor, P., Lotfalizadeh, H. (2016): A checklist of Chalcidoidea (Insecta: Hymenoptera) of Khuzestan in southwestern Iran. Journal of Insect Biodiversity and Systematics 2: 121-142.

Noyes, J.S. (2017): Universal Chalcidoidea Database. The Natural History Museum, <<http://www.nhm.ac.uk/chalcidoids>>

Tavakoli Roodi, T., Fallahzadeh, M., Lotfalizadeh, H. (2016): Fauna of chalcid wasps (Hymenoptera: Chalcidoidea, Chalcididae) in Hormozgan province, southern Iran. Journal of Insect Biodiversity and Systematics 2(1): 155-166.

**Key words:** *Epitranus clavatus*, Epitraninae, Chalcididae, Iran, new record.

Article No.: e177202

Received: 04. August 2017 / Accepted: 19. October 2017

Available online: 29. October 2017 / Printed: December 2018

Seyed Abbas MORAVVEJ<sup>1\*</sup>, Hossein LOTFALIZADEH<sup>2</sup> and Parviz SHISHEHBOR<sup>1</sup>

1. Department of Plant Protection, College of Agriculture, Shahid Chamran University of Ahwaz, Iran.

2. Department of Plant Protection, East-Azərbayjan Agricultural and Natural Resources Research and Education Center, Agricultural Research, Education and Extension Organization (AREEO), Tabriz, Iran.

\* Corresponding author, S.A. Moravvej, E-mail: samoravvej@gmail.com