

Short communication

Two new records of Crabronidae (Hymenoptera: Apoidea) from Iran

Mahdi Khosroabadi¹, Majid Fallahzadeh^{1&*}, Christian Schmid-Egger² & Abu Fazel Dousti¹

1. Department of Entomology, Jahrom Branch, Islamic Azad University, Jahrom, Iran & 2. Fischerstr.1, 10317 Berlin, Germany

*Corresponding author, E-mail: mfalahm@yahoo.com

گزارش جدید دو گونه زنبور خانواده

Crabronidae (Hymenoptera: Apoidea) از ایران

مهدی خسروآبادی^۱، مجید فلاح‌زاده^{۱*}، کریستین اش‌مید-ایگر^۲ و ابوفاضل دوستی^۱

۱- گروه حشره‌شناسی، واحد جهرم، دانشگاه آزاد اسلامی، جهرم، ایران و ۲- خیابان فیشر، ۱۰۳۱۷، ۱۰، برلین، آلمان

* مسئول مکاتبات، پست الکترونیکی: mfalahm@yahoo.com

چکیده

در میان نمونه‌های حشرات جمع‌آوری شده به وسیله تله مالیز از نقاط مختلف استان فارس، دو گونه خانواده Crabronidae (Hymenoptera: Apoidea) جمع‌آوری و شناسایی شد که برای اولین بار از ایران گزارش می‌شود.

واژگان کلیدی: زنبور، فون، تله مالیز، ایران

دریافت: ۱۳۹۷/۲/۲۰، پذیرش: ۱۳۹۷/۳/۹.

Crabronidae (Hymenoptera: Apoidea) is a diverse and abundant family of Aculeata wasps, with more than 8891 known species and many more to be discovered (Aguiar *et al.*, 2013; Puławski, 2018). Biologically, members of the family attacks a wide range of prey, including other insects and arthropods, which may help maintain a healthy balance between insect populations in various habitats (Vieira *et al.*, 2011).

The fauna of Iranian Crabronidae has currently poorly known. Recently, Ebrahimi (2014) listed the species of Ampulicidae, Sphecidae and Crabronidae deposited in the Hayk Mirzayans Insect Museum (HMIM), Tehran, Iran. More recently, Jahantigh *et al.* (2017) catalogued 315 species of Crabronidae in 56 genera and 6 subfamilies from Iran.

The current study continues a series of publications dealing with the family Crabronidae in southern Iran (Fallahzadeh *et al.*, 2009; Atbaei *et al.* 2015; Rezaei & Fallahzadeh, 2015; Schmid-Egger *et al.*, 2016). Here, two following species are added to the Iranian insect fauna.

Specimens were collected by Malaise-traps from different area of Fars province in southern Iran. The specimens were identified by third author. The voucher specimens are deposited in Department of Entomology, Jahrom Branch, Islamic Azad University, Jahrom, Iran (JIAU). The taxonomy and distributional data were adapted from Puławski (2018).

Tachytes matronalis Dahlbom, 1845

Specimens examined: 2♂♂, 1♀, Fars province, Neyriz-Jaafarabad (29°16'N, 54°19'E), 07.ix.2012, leg. M. Khosroabadi; 1♀, same data, 07.viii.2012.

General distribution: Egypt, Algeria, Israel, Italy, Spain, Turkey, Greece, Cyprus, Afghanistan, Kazakhstan, Ukraine, former USSR, China.

Remarks: The genus *Tachytes* Panzer, 1806 is a large, cosmopolitan genus of the tribe Larrini that currently includes about 297 valid species (Puławski, 2018). The Palaearctic species of *Tachytes* revised by Puławski (1962). This revision is still a basic reference for identification of *Tachytes* specimens from Iran. The female of *T. matronalis* differs from other species of the genus by the following combination of characters: clypeus without teeth; least interocular distance distinctly less than 1.5x length of flagellomere I; at least first and second gastral segments ferruginous; hind femur with dense, regular, erect setae (Li *et al.*, 2008).

***Trypoxylon aegyptium* Kohl, 1906**

Specimens examined: 1♀, Fars province, Neyriz-Ghatruyeh (29°10'N, 54°41'E), 15.ix.2012, leg. M. Khosroabadi.

General distribution: Egypt, Libya, Algeria, Israel, Mauritania.

Remarks: The genus *Trypoxylon* Latreille, 1796 is a large and cosmopolitan genus of the tribe Trypoxylini that currently consists of over 631 species (Puławski, 2018). *Trypoxylon aegyptium* belongs to the *Trypoxylon scutatatum* species-group. It can be distinguished from all known species of *scutatatum* species-group by the following combination of characters: frontal shield strongly elongate, with elliptical medial pit, straight lower carinae, acute ventral angle, and small enclosed space; scutum and mesopleuron moderately punctate by small punctures, with interspaces microstriate, mat or half-mat. Male gastral sternite 8 with obliquely truncate apicolateral projections separated by almost semicircular apical emargination (Antropov, 2011).

Acknowledgements

This research was supported by Department of Entomology, Jahrom Branch, Islamic Azad University, Jahrom, Iran.

References

- Aguiar, A., Deans, A., Engel, M., Forshage, M., Huber, J., Jennings, J., Johnson, N., Lelej, A., Longino, J., Lohrman, V., Mikó, I., Ohl, M., Ramusen, C., Taeger, A. & Ki Yu, D. (2013) Order Hymenoptera. pp. 51–62 in Zhang, Z.Q. (Ed.), *Animal Biodiversity: An Outline of Higher-level Classification and Survey of Taxonomic Richness*, Addenda. *Zootaxa* 3703: 1–82.
- Antropov, A.V. (2011) Order Hymenoptera, family Crabronidae, genera *Trypoxylon*, *Pseudomicroides* and *Belomicroides*. pp. 609–629 in van Harten, A. (Ed.), *Arthropod fauna of the U.A.E.* Vol. 5, 744 pp. Dar Al Ummah Printing, Abu Dabi, UAE.
- Atbaei, M., Fallahzadeh, M. & Ljubomirov, T. (2015) A contribution to the fauna of Crabronidae (Hymenoptera, Apoidea) in South-Western Iran. *Journal of Insect Biodiversity* 3(11): 1–30.
- Ebrahimi, E. 2014. The list of Hymenoptera in the Hayk Mirzayans insect museum, suborder Apocrita. superfamily Apoidea (Spheciformis series). families Ampulicidae, Sphecidae, Crabronidae. pp. 1–62, in Askari, H., Farazmand, H., Hosseini Nezhad, A., Manzari, S., Mirabolfathi, M., Mofidi-Neyestanak, M., Morovati, M., Zand, E. & Zare, R. (Eds.), *Insects of Iran*. Publication No. 20. Iranian Research Institute of Plant Protection, Tehran.
- Fallahzadeh, M., Ostovan, H. & Saghaei, N. (2009) A contribution to the fauna of

- Sphecidae and Crabronidae (Hymenoptera) in Fars province, Iran. *Plant Protection Journal* 1: 234–248.
- Jahantigh, F., Rakhshani, E., Mokhtari, A., & Ramroodi, S.** (2017) Catalogue of Ampulicidae, Crabronidae and Sphecidae of Iran (Hymenoptera, Apoidea). *Zootaxa* 4307(1): 1–96.
- Li, T., Cai, W., & Li, Q.** (2008) Two new species and five new records of the genus *Tachytes* Panzer (Hymenoptera, Crabronidae) from China, with a key to the Chinese species. *Deutsche Entomologische Zeitschrift* 55(1): 153–159.
- Pulawski, W.J.** 1962. Les *Tachytes* Panz. de la région paléarctique occidentale et centrale (Hym., Sphecidae). *Polskie Pismo Entomologiczne* 32:311–475.
- Pulawski, W.J.** 2018. Catalog of Sphecidae. Available on: http://www.calacademy.org/research/entomology/Entomology_Resources/Hymenoptera/sphecidae/Genera_and_species_PDF/introduction.htm (accessed 14 April 2018).
- Rezaei, Sh. & Fallahzadeh, M.** 2015. New data on the digger wasps (Hymenoptera, Apoidea, Crabronidae) in Southern Iran. *Far Eastern Entomologist* 303: 1–18.
- Schmid-Egger, C., Fallahzadeh, M., Khosroabadi, M. & Ljubomirov, T.** 2016. A new species of *Holotachysphex* de Beaumont, 1940 (Hymenoptera, Apoidea, Crabronidae) from Iran with identification key to species. *Zootaxa* 4169 (1): 187–193.
- Vieira, L., Oliveira, N. & Gayubo, S.** (2011) On the use of Apiformes and Spheciformes (Insecta: Hymenoptera) populations as a management tool. *Biodiversity and Conservation* 20(3): 519–530.
-