

SCIENTIFIC NOTE

**A COMMENT ON IRANIAN ENSIGN WASPS
(HYMENOPTERA: EVANOIDEA: EVANIIDAE)****Hassan Ghahari* and Andrew R. Deans****

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Insects in the family Evaniidae (Hymenoptera: Evanoidea) develop as solitary egg predators within the oothecae of cockroaches (Dictyoptera: Blattaria). A total of 439 extant (plus 19 fossil) species and 21 extant (plus 11 fossil) genera are recognized as valid. The superfamily Evanoidea is monophyletic and sister to Ceraphronoidea + Proctotrupeoidea + Platygastroidea + Cynipoidea + Chalcidoidea (Deans 2005, Deans & Huben 2003, Deans & Kawada 2008). The fauna of these beneficial insects has not been studied in Iran very well and the single paper is Tirgari (1975) with two species from one genus. With attention to many ambiguities in Iranian insects fauna and especially preventing the probable scientific mistakes, revising the old data which have been fundamentally changed is very necessary. Therefore, the poor fauna of Iranian Evaniidae is discussed in this paper. Two ensign wasps including, *Evania caspia* Eichwald 1830 and *Evania cribrata* Semenow 1892 were collected by the first author and other researchers from many regions of Iran. The voucher specimens are deposited in the collections of the authors.

Genus *Evania* Fabricius, 1775

Type species: *Sphex appendigaster* (Linnaeus), designated by Latreille (1810).

Number of valid species: 67 (33 confirmed spp. + 34 spp. incertae sedis).

***Evania caspia* Eichwald 1830**

Syn.: *Evania dimidiata* Spinola, 1838; *Evania abyssinica* Westwood, 1841; *Evania thoracica* Guérin-Méneville 1844; *Evania dimidiata* var. *rufa* Magretti, 1884; *Evania dimidiata dimidiata* Kieffer, 1912; *Evania (Evania) dimidiata*: Hedicke 1939.

Distribution in Iran (Provinces): East Azarbaijan, Golestan, Guilan, Isfahan, Markazi, Mazandaran, Semnan, Tehran.

Distribution outside Iran: Azerbaijan, Egypt, Ethiopia, Israel, Libya, Sudan, Transcaucuses, Turkmenistan.

Material examined: Semnan province: Damghan, iv.2001 (1 specimen), leg. H. Sakenin, det. A. Deans; Golestan province: Gorgan, v.2003 (2 specimens), leg. H. Ghahari, det. A. Deans; Semnan province: Semnan, iv.2005 (4 specimens), leg. H. Sakenin, det. A. Deans; Tehran province: Shahreyar, vii.2006 (3 specimens), leg. H. Ghahari, det. A. Deans; East Azarbaijan province: Ahar, viii.2006 (2 specimens), leg. M. Havaskary, det. A. Deans; Mazandaran province: Ghaemshahr, vi.2006 (3 specimens), leg. H. Ghahari, det. A. Deans.

Comment: *Evania caspia* Eichwald 1830 was listed as a potential synonym of *Evania dimidiata* Spinola, 1838 by Dalla Torre (1902) and was later formally synonymized by Hedicke (1939). Dalla Torre and Hedicke both treated *dimidiata* as the name with priority. Eichwald (1830), however, published his name prior to Spinola (1838), and the correct name for this species should be *Evania caspia* Eichwald. *Evania dimidiata* Spinola does not

satisfy ICZN condition 23.9.1.2 for reversal of precedence and is a junior synonym of *Evania caspia* Eichwald (Deans 2005).

***Evania cribrata* Semenow 1892**

Syn.: *Evania schlettereri* Kohl, 1892; *Evania schlettererii* {sic}: Dalla Torre 1902; *Evania* subg. *Evania cribrata*: Hedicke 1939.

Distribution in Iran (Provinces): East Azarbaijan, Isfahan, Khuzestan, Mazandaran, West Azarbaijan, Yazd.

Distribution outside Iran: Armenia, Azerbaijan, Georgia, Russia (Caucases and Transcaucases).

Material examined: Mazandaran province: Ghaemshahr, vi.2006 (1 specimen), leg. H. Ghahari, det. A. Deans; East Azarbaijan province: Arasbaran, viii.2006 (1 specimen), leg. M. Havaskary, det. A. Deans.

Iran is a large country and also with diverse fauna of cockroaches as the main hosts of ensign wasps. Therefore, more species of Evaniidae is expected for Iranian fauna which can be surveyed by researchers as an interesting research and valuable topic.

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