

## First records of the subfamily Adelognathinae (Hym.: Ichneumonidae) from Iran

Abbas MOHAMMADI-KHORAMABADI

Department of Plant Production, College of Agriculture and Natural Resources of Darab, Shiraz University, PO. Box: 74811-96711, Iran,  
E-mail: mohamadk@shirazu.ac.ir

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**Abstract.** The subfamily Adelognathinae (Hym.: Ichneumonidae) with two species, *Adelognathus brevis* and *A. pilosus*, is newly recorded from Iran.

**Key words:** *Adelognathus*, new record, distribution, Iran.

The family Ichneumonidae consists about 24,281 described species, classified into 48 subfamilies (Yu et al. 2012). Adelognathinae is a relatively small subfamily with a single genus, *Adelognathus* Holmgren comprises 46 species (Kasparyan 1990; Yu et al. 2012). They are biologically known as parasitoids of three families (Pamphilidae, Diprionidae and Tentredinidae) of sawflies (Hymenoptera: Symphyta) (Kasparyan 1990, Kasparyan & Kopelke 2009). Adelognathins have antenna with 12 or 13 flagellomeres and labrum conspicuously exposed under clypeus, which make them easily recognizable among other subfamilies of Ichneumonidae (Broad 2011). In general, there have been recorded species of 24 subfamilies of Ichneumonidae from Iran (Barahoei et al. 2012), excluding Adelognathidae

In this paper, the subfamily Adelognathinae is newly recorded from Iran with first records of two species.

The specimens were collected using sweep net in the north of Iran and were identified by the key and descriptions provided by Kasparyan (1990). They were deposited in the insect museum of college of Agriculture and Natural Resources of Darab, Shiraz University, Shiraz, Iran.

### *Adelognathus brevis* Kasparyan, 1986 (Figs. 1-3)

**Material examined:** 1♀, IRAN, Guilan province, Ziaz (36° 52' N, 50° 13'E, 530 m a.s.l.), 04.X.2010, Leg. A. Mohammadi-Khoramabadi.

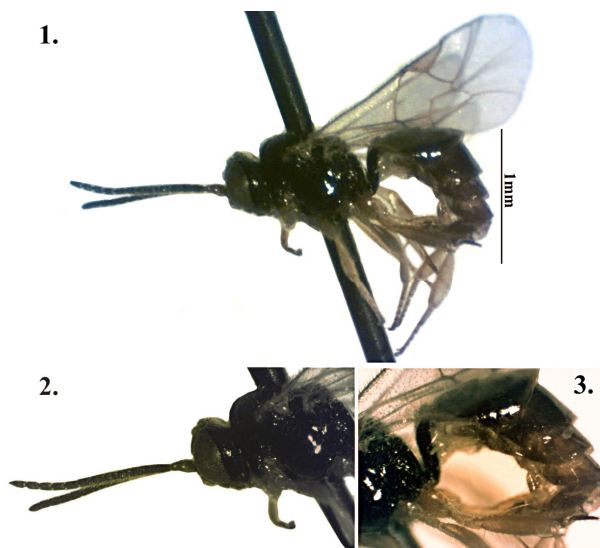
**Diagnosis:** Face and clypeus yellow, antenna 12-segmented, total length of first and second antennal flagellomeres 0.5X as long as longitudinal diameter of compound eye (Figs. 1-2), occipital carina reaches the base of mandible, epicnemial carina not fully developed and not reached to the anterior edge of mesopleuron, propodeum with petiolar area strongly widened anteriorly, second tarsomere of hind leg equal to the 5<sup>th</sup> one (Fig. 1), second metasomal tergite smooth and shiny (Fig. 3).

**General distribution:** Belarus, Bulgaria, Germany, Iran (new record), Italy, Poland, European part of Russia (Yu et al. 2012).

### *Adelognathus pilosus* Thomson, 1888 (Figs 4-7)

**Material examined:** 2♀♀ 1♂, IRAN, Guilan province, Ziaz (36° 52'N, 50° 13'E, 530 m a.s.l.) 10.VI.2011, leg. A. Mohammadi-Khoramabadi.

**Diagnosis:** Antenna 12-segmented (Fig. 4), face in female completely yellow (Fig. 6), in male black with a central patch, clypeus yellow, propodeum with a large petiolar area and a short basal area (Fig. 5), second metasomal tergite

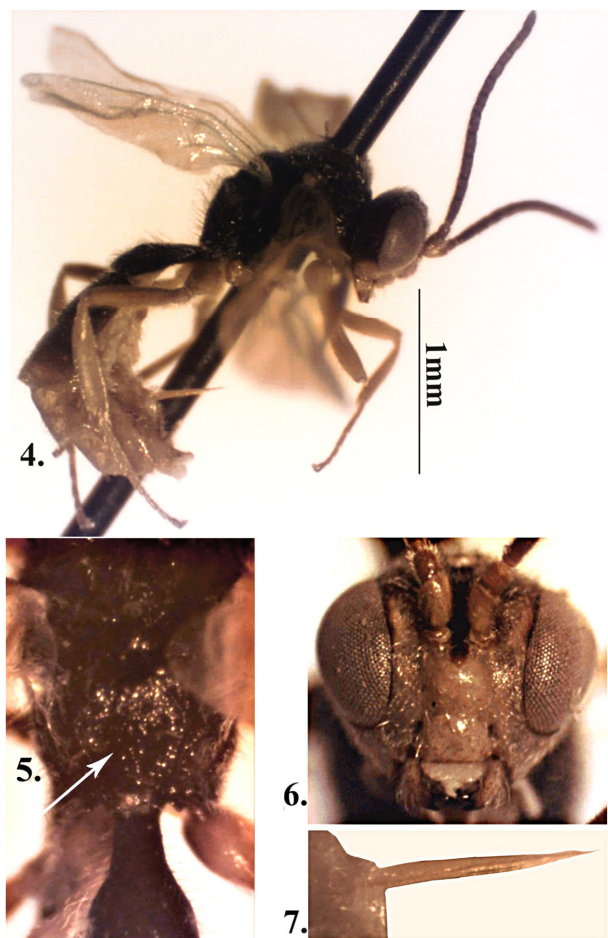


**Figures 1-3.** *Adelognathus brevis*. 1.) female habitus, 2.) lateral aspect of head and mesosoma, 3.) lateral aspect of metasoma.

black with coarse coriaceous sculpture, 3rd metasomal tergite brown with smoother coriaceous sculpture than 2<sup>nd</sup> metasomal tergite, the rest of tergites brown (Fig. 4), ovipositor as in Fig. 7.

**General distribution:** Armenia, Bulgaria, England, Finland, France, Iran (new record), Italy, Kazakhstan, Moldova, Norway, Poland, Russia, Serbia & Montenegro, Sweden, Ukraine, Yugoslavia, (Yu et al. 2012).

Considering the newly reported subfamily (Adelognathinae) of family Ichneumonidae, the number of recorded subfamilies in Iran is now reached to 26 (Barahoei et al. 2012; Hooshyar et al. 2014). Guilan province along with Mazandaran and Golestan provinces in the north of Iran consist of the Hyrcanian (Caspian) forests, a unique and rich natural biome in the world (Siadati et al. 2010). A recently long term period of sampling showed that these forests inhabit a diverse fauna of the some subfamilies of Ichneumonidae (Mohammadi-Khoramabadi et al. 2011; Mohammadi-Khoramabadi & Talebi 2013; Mohammadi-Khoramabadi et al. 2013a, b). Here, two species of the subfamily Adelognathinae are reported for the first time from the north of Iran. Most species of the subfamily Adelognathinae distributed in the Palaearctic region and mainly have been reported from Europe and Russia (Kasparyan & Kopelke 2009; Yu et al. 2012). Comparing the Adelognathinae fauna of some ad-



**Figures 4-7.** *Adelognathus pilosus*. 4.) female habitus. 5.) propodeum, arrow shows petiolar area, 6.) face, 7.) ovipositor.

adjacent countries such as Turkey and Iran (Kolarov 2009) demonstrates that more samplings are needed to get a complete picture of the fauna of this subfamily in this region and all over Iran.

According to literature, there is no any host record for the two newly recorded adelognathins in the world (Kasparyan 1990; Kasparyan & Kopelke 2009; Yu et al. 2012). Sawflies as the hosts of the family Adelognathinae (Kasparyan & Kopelke 2009) have a relatively rich fauna and density in Guilan province. From a total of 178 known species of sawflies in Iran, more than 72 species exist in this province (Khayrandish et al. 2015). Future studies and rear-

ing will hopefully reveal some host-parasitoid relationships for sawflies and adelognathins in Iran.

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