

First Records of Three Species of the Family Chrysididae (Hymenoptera: Aculeata) for the Turkish Fauna

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Abstract: This study reports the first records of *Chrysis bilobata* Balthasar, 1953, *Chrysis coa* Invrea, 1939 and *Chrysis rubricata* Mocsáry, 1902 from Turkey.

Key words: Chrysididae, *Chrysis*, first records, Bingöl, Turkey.

Introduction

This superfamily Chryridoidea (Hymenoptera: Aculeata) consists of three families (Bethyridae, Chrysididae and Dryinidae) that are moderately species-rich and four further families (Embolemidae, Plumariidae, Sclerogibbidae and Scolebythidae) containing few and rare species. The majority of these families are highly specialised and all are parasitoids. The family Chrysididae has four subfamilies (Chrysidinae, Cleptinae, Amiseginae and Loboscelidiinae) but some authors recognise also Parnopinae as a distinct subfamily (GOULET & HUBNER 1993, FARHAD et al. 2016). The family Chrysididae, commonly called cuckoo wasps, contains 87 genera and 2509 species (AGUIAR et al. 2013). Previous extensive studies on the fauna of the Chrysididae in Turkey were carried out by STRUMIA & YILDIRIM (2007, 2011), YILDIRIM & STRUMIA (2000a, 2000b, 2006a, 2006b) and WIŚNIEWSKI & STRUMIA (2007). However, studies on the diversity of cuckoo wasps in the Province of Bingöl have not been carried out until now.

Materials and Methods

Specimens were collected in April–October 2016–2017 by using a net (sight hunting) in various habitats in the Province of Bingöl (Fig. 1). Specimens were examined

under a Nikon SMZ745T stereomicroscope. Images were taken with a Nikon digital camera attached to the stereomicroscope. The identification of the genera followed KIMSEY & BOHART (1991). The diagnoses of species and species groups followed LINSSENMAIER (1987, 1994, 1999), ROSA (2006), ROSA & SOON (2012) and SMISSEN (2010). All specimens were deposited in the insect collection of the Department of Biology in the Faculty of Science and Arts, Bingöl University.

Results

SUBFAMILY CHRYSIDINAE

Genus *Chrysis* Linnaeus, 1761

Chrysis bilobata Balthasar, 1953

Material examined: Bingöl: Genç, Center, 997 m a.s.l., 15.VIII.2016, 2♀♀. **Distribution:** Algeria, Jordan, Iran, Lebanon, Syria (KIMSEY & BOHART 1991, STRUMIA & FALLAHZADEH 2015), Turkey (present study).

Chrysis coa Invrea, 1939

Material examined: Bingöl: Genç, Center, 997 m a.s.l., 22.VIII.2016, 2♂♂; Bingöl: Kiğı, 1702 m a.s.l., 06.VIII.2016, 1♀. **Distribution:** Greece, Iran, Italy, Russia (KIMSEY & BOHART 1991, STRUMIA & FALLAHZADEH 2015), Turkey (present study).

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Fig. 1. Collecting places of *Chrysis bilobata* Balthasar, 1953 (A), *Chrysis coa* Invrea, 1939 (B) and *Chrysis rubricata* Mocsáry, 1902 (C) in the Province of Bingöl.

Chrysis rubricata Mocsáry, 1902

Material examined: Bingöl: Center, 1145 m a.s.l., 25.VIII.2016, 3♂♂; Bingöl: Genç, Center, 997 m a.s.l., 15.VIII.2016, 2♂♂; Bingöl: Solhan, Dilektepe, 1280 m a.s.l., 17.V.2016, 2♂♂, 1♀. **Distribution:** Azerbaijan, Egypt, Iran, Libya and Tunisia (KIMSEY & BOHART 1991, ROSA et al. 2013), Turkey (present study).

Discussion

Until now, 443 species of the family Chrysididae are known from Turkey (STRUMIA & YILDIRIM 2011). Our study adds three new species to the fauna of the Chrysididae in Turkey. Thus, the number of the species of this family in Turkey is now increased to 446. In this country, with its various geographical regions and diverse climate regions, the number of the Chrysididae species is likely much higher than currently recognised. Therefore, further studies on this group of insects should be carried out.

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