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First record of the genus *Anomalon* Panzer, 1804 (Hymenoptera: Ichneumonidae: Anomaloninae) in Syria

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ABSTRACT. We report the discovery of the parasitic wasp, *Anomalon cruentatm* (Hymenoptera: Ichneumonidae, Anomaloninae) for Syria. It is the first record of *A. cruentatm* in Syria. It was collected in a greenhouse in Lattakia province. Its description, distribution and photographs are provided.

Key words: Anomaloninae, parasitoid, first record, Syria

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Introduction

Ichneumonidae is a large group of Hymenoptera with about 44 subfamilies worldwide. Their host consist different families of Lepidoptera, Hymenoptera, Diptera, Coleoptera and other arthropod groups (Yu et al., 2016). The subfamily Anomaloninae Viereck, 1918 is one of diverse groups of the family Ichneumonidae that includes two tribes, Therionini Viereck, 1918 and Anomalonini Viereck, 1918 (Gauld, 1978). Anomalonini is represented by a single genus *Anomalon* Panzer, 1804. Ninety-eight species of this genus have been described worldwide (Yu et al., 2016) and 22 species are distributed in the Palaearctic region (Yu et al., 2016; Zardouei-Heydari et al., 2020). *Anomalon* is easily distinguished from the other Anomalonine by the combination of the following characters: frons with a median vertical ridge; mid tibia with a single long, strong apical spur; forewing with 2 + 3 *rs-m* joining *M* distal to 2 *m-cu*, hindwing with distal abscissa of *Cu1* entirely absent. Members of the genus seem to be parasitic primarily on coleopteran larvae. Many species of *Anomalon* are known to parasitize Tenebrionidae (Coleoptera) (Gauld & Mitchell, 1977), but others are recorded from species of Elateridae (Coleoptera), Noctuidae and Tortricidae (Lepidoptera) (Dasch, 1984).

Based on our knowledge, the family Ichneumonidae of Syria is poorly studied. This paper deals with report of a new record of an ichneumonid from Syria.

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Material and methods

This study was carried out in Lattakia province at northwest of Syria during 2019. The specimens were captured in a greenhouse of Tomato by net. Specimens were pinned and then identified using relevant keys and descriptions [Atanasov \(1981\)](#), [Gauld \(1978, 1980\)](#), [Gauld & Mitchell \(1977\)](#), [Schnee \(2014\)](#) and [Zardouei-Heydari et al. \(2020\)](#). Morphological terminology used in this study follow those in [Gauld et al. \(1997\)](#). Specimens were examined by stereomicroscope Nikon - Eclipse 80iDigital microscope (40X) equipped with Camera Nikon E8800 (8.0 Megapixel 10x) and attached with computer. The general distribution of the identified species is followed [Yu et al. \(2016\)](#). The voucher specimens are deposited in the private collection of General Commission of Scientific Agricultural Research, Damascus, Syria.

Results

Anomalon cruentatum (Geoffroy, 1785)

Syn.: *Ichneumon cruentatum* Geoffroy, 1785; *Ophion foliator* Fabricius, 1798; *Anomalon cruentatum* Panzer, 1804; *Trachynotus humerale* Brullé, 1832; *Nototrachys foliator* Marshall, 1872; *Nototrachys rufoorbitalis* Cameron, 1906; *Nototrachys flavoorbitalis* Cameron, 1907; *Anomalon foliator* Uchida, 1958; *Anomalon epiphany* Izquierdo, 1979.

Examined materials: Syria, Lattakia province, 35°3' N, 46°47' E, 11m (36Ft), 20.X.2019, 2♀♀, R. Muhsen Youssef leg., by net in greenhouse of Tomato.

Diagnosis: Female – Size. Body length 6.0–11.5 mm, Forewing length 3.91–4.58 mm, ovipositor sheath 1.3–2.3 mm. Ground color of body reddish brown to black; head and thorax conspicuously marked with yellowish spots. Frons concave, finely punctate and polished, with a distinct median vertical ridge and transverse striae beside the median vertical ridge on the basal part; occipital carina mediodorsally incomplete; temple constricted behind eyes, about 0.45–0.65 × as wide as the compound eye in lateral view, finely punctate and polished. Antenna with 25–28 flagellomeres. Pronotum entirely striate, without an impunctate area just behind epomia; scutellum convex, laterally carinate, entirely reticulate rugose. Marginal cell about 2.0 × as long as its distance from the end of the wing ([Fig. 1](#)). **Male** – Not collected in Syria.

Distribution: It is widely distributed in the Afrotropical, Oriental and Palaearctic ([Yu et al., 2016](#); [Zardouei-Heydari et al., 2020](#)).

Discussion

As a result of this paper, *Anomalon cruentatum* (Hym.: Ichneumonidae) is newly recorded for the fauna of Syria. Only one species of the genus *Anomalon* is known from Syria, while four and 23 species are known from Iran and the Palaearctic region, respectively ([Zardouei-Heydari et al., 2020](#)). Therefore, to assist in filling information gaps about occurrence of this taxa in Syria, complementary sampling can be recommended. There is a high possibility of the presence of undescribed species and new records of the Ichneumonids in Syria. Considering that the family Ichneumonidae were poorly studied in Syria, it seems further studies are necessary.

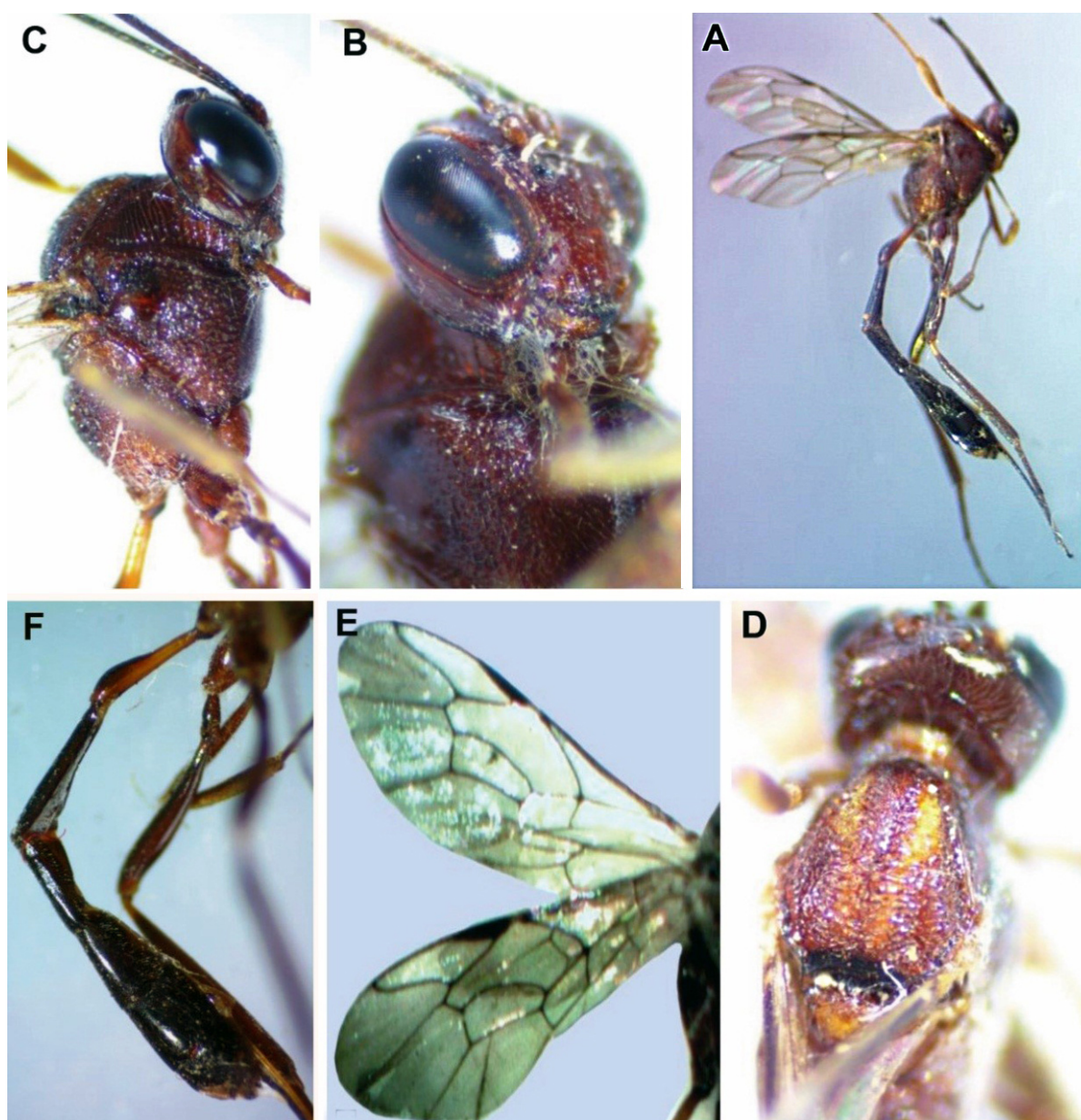


Figure 1. *Anomalon cruentatum* Geoffroy, 1785: **A.** Female, lateral view, **B.** Head in fronto-lateral view, **C.** Head and mesosoma in lateral view, **D.** Head and mesosoma in dorsal view, **E.** Fore wings, **F.** Metasoma in lateral view.

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Conflict of Interests

The authors declare that there is no conflict of interest regarding the publication of this paper.

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اولین گزارش جنس *Anomalon* Panzer, 1804 (Hymenoptera: Ichneumonidae: Anomaloninae) در سوریه

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چکیده: در این مقاله حضور زنبور پارازیتوئید *Anomalon cruentatm* (Hymenoptera: Ichneumonidae, Anomaloninae) در سوریه گزارش می‌شود. این، اولین گزارش از پراکنش گونه *A. cruentatm* در سوریه است. این زنبور در یک گلخانه در استان لاذقیه جمع‌آوری شد. توصیف، پراکنش و تصاویر مربوط به آن ارائه شده است.

واژگان کلیدی: Anomaloninae، پارازیتوئید، اولین گزارش، سوریه