

**First report of *Ecclitura primoris* Kokujev, 1902 in Hungary
(Hymenoptera: Braconidae)**

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Abstract – *Ecclitura primoris* Kokujev, 1902, the sole European species of the genus *Ecclitura* Kokujev, 1902 (Hymenoptera: Braconidae: Euphorinae) is reported for the first time from Hungary, representing its northernmost record and first occurrence outside the Mediterranean area in Europe.

Key words – Euphorinae, faunistics, new record, distribution

INTRODUCTION

Ecclitura Kokujev, 1902 (Hymenoptera: Braconidae: Euphorinae) is a rarely collected genus with only two described species, which are known from the Palearctic (BELOKOBYSKIY *et al.* 2013) and Neotropical (DE ALMEIDA 2019) regions. Several undescribed species are known from India, Vietnam (BELOKOBYSKIY 2000), and from the USA (SHAW 1985). The genus is quite distinct within Euphorinae due to the absence of submarginal cell and RS+M vein of the fore wing, long scape and strongly converging eyes (BELOKOBYSKIY *et al.* 2013).

Ecclitura primoris Kokujev, 1902 was described from Turkmenistan and is known from Tajikistan, Iran, Azerbaijan, Russia (Dagestan), Turkey, Albania and Italy (BELOKOBYSKIY *et al.* 2013). In this paper, this species is reported for the first time from Hungary. This also represents the first record of the genus from the country.

The voucher specimen was collected by the second author in Hungary. Based on images posted on an identification group of Facebook (namely, “European Ichneumonoidea”) the first author identified the genus, then later, by receiving the specimen for identification, the species as well. The voucher

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specimen was initially stored in ethanol (70%), then prepared according to the AXA method (VAN ACHTERBERG 2009), and glued on a small cardpoint. Morphological terminology follows VAN ACHTERBERG (1988). The photos of the voucher specimen were taken with a Keyence VHX-7000 camera, paired with an illumination dome as described in KAWADA & BUFFINGTON (2016); post-image works were done with Adobe Photoshop. The voucher specimen is deposited in the Hungarian Natural History Museum, Budapest (HNHM).

RESULTS

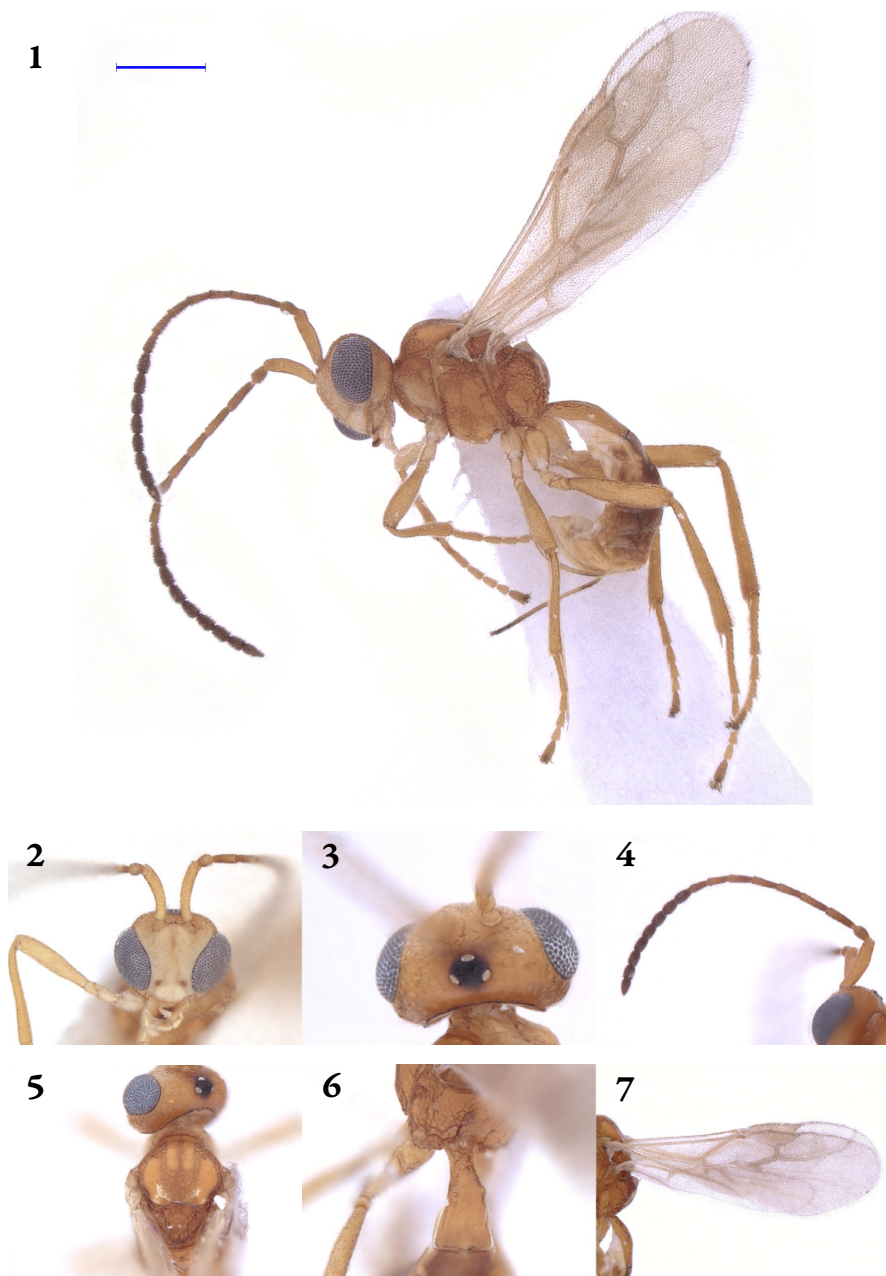
Ecclitura primoris Kokujev, 1902 (Figs 1–7)

Material examined – Hungary: Pest County, Kocsér, 47.004621, 19.917324, VIII.2022, leg. B. Magyar, one female.

Remarks – First record from Hungary, representing the northernmost record and first occurrence of the species outside the Mediterranean area in Europe. The voucher specimen fits well with the redescription of the species by BELOKOBYSKIY *et al.* (2013) based on specimens from Italy, Turkey and Turkmenistan. However, minor morphological differences and a significant difference in the COI region were observed in Italian and Iranian specimens, hence more research is required to clarify whether these differences reflect intraspecific variation or the presence of possible cryptic species (J. Stigenberg, personal communication). No host species of *Ecclitura primoris* has been known so far. *Ecclitura* species are attracted to light (BELOKOBYSKIY *et al.* 2013), similarly to several other species of Euphorinae (STIGENBERG 2011).

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Figs 1–7. *Ecclitura primoris* Kokujev, 1902, 1 = habitus, scale bar = 0.5 mm, 2 = head, frontal view, 3 = head, dorsal view, 4 = antenna, 5 = mesoscutum, 6 = propodeum and first tergite, 7 = wings (photos by Augustijn De Ketelaere)

REFERENCES

- BELOKOBYLSKIY S. A. 2000: *Subfam. Euphorinae*. – In: LEHR P. A. (ed.): *Keys to insects of the Russian Far East. Neuroptera, Mecoptera, Hymenoptera*. Dal'nauka, Vladivostok, pp. 192–399.
- BELOKOBYLSKIY S., LONI A., LUCCHI A. & BERNARDO U. 2013: First records of the genera *Histeromerus* Wesmäl (Hymenoptera, Braconidae, Histeromerinae) and *Ecclitura* Kokujev (Hymenoptera, Braconidae, Euphorinae) in Italy. – *ZooKeys* **310**: 29–40. <https://doi.org/10.3897/zookeys.310.5136>
- DE ALMEIDA L. F. V., SOUZA-GESSNER C. D. S. & PENTEADO-DIAS A. M. 2019: Three new species of the subfamily Euphorinae (Hymenoptera: Braconidae) from Brazil. – *Zootaxa* **4638**(2): 255–263. <https://doi.org/10.11646/zootaxa.4638.2.5>
- KAWADA R. & BUFFINGTON M. 2016: A scalable and modular dome illumination system for scientific microphotography on a budget. – *PLoS One* **11**(5): e0153426. <https://doi.org/10.1371/journal.pone.0153426>
- SHAW S. R. 1985: A phylogenetic study of the subfamilies Meteorinae and Euphorinae (Hymenoptera: Braconidae). – *Entomography* **3**: 277–370.
- STIGENBERG J. 2011: Revision of the Western Palearctic Meteorini (Hymenoptera, Braconidae), with a molecular characterization of hidden Fennoscandian species diversity. – *Zootaxa* **3084**(1): 1–95.
- VAN ACHTERBERG C. 1988: Revision of the subfamily Blacinae Foerster (Hymenoptera, Braconidae). – *Zoologische Verhandelingen Leiden* **249**: 1–324.
- VAN ACHTERBERG C. 2009: Can Townes type Malaise traps be improved? Some recent developments. – *Entomologische Berichten* **69**: 129–135.