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# Dolerus (Poodolerus) subalatus Kerensky, 1926, threatened and rare species in the Hungarian fauna

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HARIS, A.: Dolerus (Poodolerus) subalatus Kerensky, 1926, threatened and rare species in the Hungarian fauna. Abstract: Extremely rare, threatened sawfly species Dolerus (Poodolerus) subalatus Kerensky, 1926 captured in Zselicszentpál (Hungary, Zselic Hills). Description, genitalia figures and comparison to similar species are provided.

Keywords: Dolerus (Poodolerus) subalatus Kerensky, 1926, Hymenoptera, Tenthredinidae, Hungary, Zselic Hills

## Introduction

Dolerus (Poodolerus) subalatus Kerensky, 1926, is known only from few specimens in its whole distribution area. This species belongs to the very few brachypterous Tenthredinidae, where females are short winged and flightless. Males have normally developed wings.

This species was described by Kerensky (1926) from Rostov Region (Russia) at River Don in 1926. According to the Ukrainian red book (Ermolenko & Kotenko 2010), it also occurs in Herson, Dinepropetrovsk and Luhansk provinces of Ukraine. Out of Ukraine, it was reported from Central, South Russia and from the Caucasian part of Russia without any closer localities (Lelej et al. 2017).

We have detailed data from Varvarovka (Ukraine). It was collected on a grass-sedge meadow next to a pond at the bottom of a steppe gully. In 7th May 1960, 2 females were collected (Ermolenko & Apostolov, 1969). Out of Ukraine and Russia, it was reported only from Hungary (Roller & Haris 2018) from Pilisszántó: Hosszúhegy, one male was captured by Jenő Papp (former curator of Hymenoptera collection at the Hungarian Natural History Museum) in his weekend plot, on 20th May 1991 (Roller & Haris 2008).

## Material and Methods

The applied method was net sweeping from April till the last decade of May. For identification, the Palaearctic key of genus *Dolerus* (Haris 2000), Zhelochovtsev's work on the sawflies of the European part of the former USSR (ZHELOCHOVTSEV 1988), the handbook of Lacourt on the identification of the European sawflies (LACOURT 2020) were

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Fig. 1: Map of Zselic Landscape Protection Area at Zselicszentpál



Fig. 2: Habitat of *Dolerus subalatus* Kerensky, 1926 (photo: Haris, A.)

consulted. For the discussion of the distribution of sawflies, we consulted the book of ROLLER & HARIS (2008) titled Sawflies of the Carpathian Basin, History and Current Research, the most recent European checklist of species (TAEGER et al. 2006) and the monograph of Sundukov on sawflies of Russia (SUNDUKOV 2017).

#### Results

Dolerus (Poodolerus) subalatus Kerensky, 1926, 1 male, 26. 04. 2022, Zselicszentpál: Ropoly: forest reservation (Fig. 1). Coordinates: between 46°15'25.64"N, 17°48'37.82"E and 46°15'49.84"N, 17°48'43.46"E (coll. A. Haris). Habitat: undergrowth of Illyrian thermophile beech forest (*Vicio oroboidi-Fagetum*) (Fig. 2).

Male: Body black, reddish yellow: apical halves of all femora, basal third of all tibiae. Cenchri ivory white with light brown shadow. Wings hyaline, costa, subcosta, stigma, veins black. Head densely and roughly, moderately deeply punctured, gently shiny. Postoccipital carina missing. Head strongly contracted behind eyes (Fig. 3). Head and thorax densely covered with long, white pubescence about 1.2-1.5x as long as diameter of anterior ocellus. Length: width of vertex as 5:2. OOL: POL: OCL: 10:5:8. Ratios of antennal segments: 11:9:43:43:42:38:32:32:30. Upper half of mesopleuron densely, deeply and uniformly punctured, dull. Lover half of mesopleuron with moderately deep, moderately large punctures with shiny interspaces between punctures. Pronotum and anterior lobe of mesonotum deeply and densely punctured, hardly shiny. Lateral lobes with shiny interspaces between punctures, interspaces about 1-2x as large as diameter of a puncture (in this aspect, it is similar to D. puncticollis Ths.). Mesoscutellum with dense, moderately deep punctures, slightly shiny. Mesoscutellar appendage and metascutellum smooth and shiny. Abdominal tergites from tergite 2 with fine striated surface, tergite 1 with rough, dense surface sculpture, moderately shiny. Claws with hardly visible minute inner tooth. Penis valve in Fig. 4. Length: 7.7 mm.

Females are brachypterous. No female has been captured in Hungary so far. Wings of female don't cover the last two abdominal tergites which clearly differentiate it from the other extremely short winged sepcies, *Dolerus (Poodolerus) ciliatus* Konow, 1891. For the identification, the extremely contracted head and the long pubescence of males seem reliable identification features, however, most of the exemplars holding similar characters proved to be irregular form of *Dolerus (Poodolerus) puncticollis* Thomson, 1871 after genitalia dissection (except the 2 above mentioned males from Pilisszántó and Zselicszentpál). Therefore, for the safe identification of males, genitalia dissection is always necessary.

To make easy the rare yellow legged *Dolerus* species, male genitalia of *Dolerus sub-alatus* Kerensky and the related 5 species species with yellow marked legs are provided in Figs 4: A-F.



Fig. 3: Head of male of Dolerus subalatus Kerensky, 1926 (photo: Haris)

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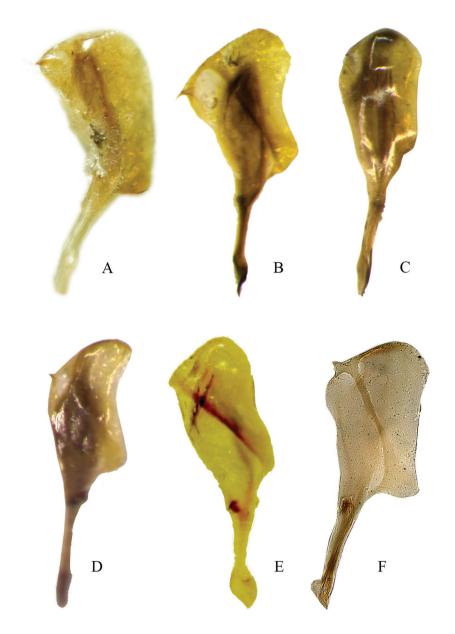


Fig. 4: Penis valve of A - *Dolerus subalatus* Kerensky, 1926 (photo: Haris), B - *Dolerus puncticollis* Thomson, 1871 (photo: Haris), C - *Dolerus gonager* (Fabricius, 1781) (photo: Haris), D - *Dolerus liogaster* Thomson, 1871 (photo: Haris), E - *Dolerus vernalis* Ermolenko, 1964 (photo: Haris), F - *Dolerus ciliatus* Konow, 18914 (photo: Heidemaa)

## References

- Ermolenko, V. M. & Apostolov, L. G., 1969: Materials on the sawfly fauna (Hymenoptera, Symphyta) in the Dinepropetrovsk region of the Ukrainian SSR. Vestnik Zoologii 6:53-57.
- Ermolenko, V. M. & Kotenko, A. G. 2010: Red list of Hymenoptera in Ukraine 2010: https://redbook-ua.org/item/dolerus-subalatus-kerensky/ Last accessed: 23. 06. 2022.
- HARIS, A. 2000: Study on the Palaearctic Dolerus Panzer, 1801 species (Hymenoptera: Tenthredinidae). Folia Entomologica Hungarica Supplement 61: 95-148. https://doi.org/10.17112/FoliaEntHung.2015.76.259
- KERENSKIJ, I. P. 1926: Korotkokrylye pililshhiki iz okr. Rostova na Donu. (Short-winged sawflies from the area of Rostov-on-Don). Izvestija Severo-Kavkazkogo Gosudarstvennogo Universiteta, Rostov-na-Donu 9: 55-69
- LELEJ, A. S., PROSHCHALYKIN, M. Y. & LOKTIONOV, V. M. 2017: Annotated Catalogue of the Hymenoptera of Russia. Volume I Symphyta and Apocrita: Aculeata. Proceedings of the Zoological Institute RAS, Supplement 6. 389 pp. https://doi.org/10.31610/trudyzin/2017.supl.6.5
- ROLLER, L. & HARIS, A. 2008: Sawflies of the Carpathian Basin, History and Current Research. Natura Somogyiensis 11: 1-261.
- ZHELOCHOVTSEV, A. N. 1988: Otryad Hymenoptera Pereponchatokrylye, Podotryad Symphyta Sidyachebryukhie, 7-234. In: Medvedev, K. H. (ed.) Opredelitel nasekomykh evropeiskoi chasti SSSR, Vol. 3 Hymenoptera, Part 6, Nauka, Leningrad.