



## ***Dina orientalis* sp. nov. —an overlooked new leech (Annelida: Hirudinea: Erpobdellidae) species from the Near and Middle East**

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The new species described here has, for a long time, been confused with *Dina stschegolewi* (Lukin & Epshtein, 1960), a species described from Krym (the Crimean Peninsula, Ukraine). Both species are similar in having rows of yellow spots on the dorsal surface. As the latter species had been poorly defined in the past, all yellow spotted specimens of the genus *Dina* Blanchard, from the area of the Near and Middle East, were attributed to *Dina stschegolewi* (Rückert 1985, Neesemann 1993, Neesemann & Neubert 1999). Prof. V. M. Epshtein (Wuppertal/Germany, oral communication) suspected that the specimens attributed to *Dina stschegolewi* by Neesemann (1993) and Neesemann & Neubert (1999) differed from the species from Krym. Furthermore, Grosser & Pešić (2006) mentioned that populations of *Dina stschegolewi* sensu Neesemann, 1993 most probably belong to a new species.

In this paper, *Dina orientalis* sp. nov., is recognized as a species distinct from *D. stschegolewi* (Lukin & Epshtein, 1960). Both the external morphology and internal anatomy have been examined. The new species is characterized by a combination of the following characters: (1) leeches of medium size with a typical *Dina*-annulation; (2) the dorsal surface with numerous yellow spots, one wide and bright central longitudinal strip and two dark paramedian stripes; (3) genital pores are separated by two annuli (male in furrow b2/a2, female in furrow b5/b6); (4) the cornua of the atrium are short and curved; (5) the ovisacs are short and strongly coiled in the caudal part, reaching up to the end of the second somite behind the female genital pore or approximately up to annulus b2 of the third somite, the ovisacs are enlarged from the second ganglion behind the female genital pore; (6) the testes begin in the sixth (ca. annuli a2 to b6) or seventh (ca. on the level of furrow b1/b2) somite behind the female genital pore.

The taxonomy and nomenclature of Western Palaearctic yellow spotted *Dina*-species was unclear for a long time. Gedroyć (1916) described a yellow spotted erpobdellid leech from the Eastern part of Poland (today Ukraine) as *Dina apathyi* Gedroyć, 1916. Johansson (1927) described an other yellow-spotted taxa as a variety of *D. lineata* from Spain under the name *Dina lineata* var. *punctata* Johansson, 1927. Later on, this species was reported by Soós (1963, 1966) also as a variety of *D. lineata*. Neesemann (1990) stated that *Dina punctata* is a separate species. Lukin (1976) confused *Dina apathyi* with *D. punctata*, believing the latter to be a synonym of *Dina apathyi* (see: Neesemann & Neubert, 1999). Lukin & Epshtein (1960) described *Dina stschegolewi* from Krym. Lukin (1976) compared *Dina stschegolewi* with *D. apathyi* (in fact with *D. punctata*, see: Grosser & Eiseler 2008) and described differences in the internal anatomy between these two species. Neesemann (1993) gave a redescription of *Dina apathyi* based on material from south-eastern Austria and Hungary, but without information on the shape of the ovisacs and vasa deferentia. It is very likely that these leeches, which differ from the North German populations in their internal anatomy, represent a different species. Namely, these leeches possess an atrium very similar to that of *Dina apathyi*, but the ovisacs and vasa deferentia are very similar to those of *D. stschegolewi* (for diagnostic differences between *Dina apathyi* and *D. stschegolewi*, see: Grosser & Eiseler 2008). In the same paper, based on material from Israel and the Lebanon, Neesemann (1993) redescribed *Dina stschegolewi*, following Rückert's (1985) concept of the species, but without giving details on the internal anatomy. Neesemann's (1993) redescription was used for the further identification of *Dina stschegolewi*, so all later records (e.g., Kazanci *et al.* 2009) of *D. stschegolewi* are questionable. The records of *D. stschegolewi* from the Lebanon (Neesemann 1993) and Iran (Grosser & Pešić 2006) are attributed to *Dina orientalis* sp. nov.

Leeches in this study were collected by hand or with pincers from the underside of roots and stones in water, as well on the banks. In total 31 specimens were examined. The external morphology (i.e. the number and position of eyes, the annulation, colouration, papillation and the position of genital pores) was examined on several specimens. The characters