Redescription of the Oriental *Thermocyclops taihokuensis* (Harada, 1931) (Copepoda: Cyclopoida) from its westernmost population

by Vladislav I. Monchenko

Abstract. A full redescription of the Oriental cyclopoid copepod *Thermocyclops taihokuensis* (Harada) is given from its most western area, the river Uzboy in West Turkmenistan, based on metric and meristic characters and their statistical processing. The most significant feature of the species, a shortened inner apical spine on segment 3 of endopodite P4, and some other morphological characters are compared with those of five other populations from the extensive range of the species. This comparison characterises the Uzboy population as a western peripheral isolate.

Key words. Cyclopoida, *Thermocyclops taihokuensis*, westernmost population, redescription, Turkmenistan.

During copepod investigations in the Caspian Sea and adjacent water-bodies, we examined 342 samples collected from 77 sites in the course of individual expeditions along the perimeter of this sea (excluding the Iranian shore) and 776 samples from the holdings of the Zoological Institute, RAS (St. Petersburg), collected by different workers at different times between 1900 and 1939. This extensive material allowed us to show conclusively the presence of five species of the genus *Thermocyclops* in this region, viz. *T. oithonoides* Kiefer, 1978, *T. crassus* (Fischer, 1853), *T. rylovi* (Smirnov, 1928), *T. dybowskii* (Lande, 1890) and *T. taihokuensis* (Harada, 1931) (MONCHENKO 2003). All these species were also found in a careful investigation of the species of this genus, further east in Uzbekistan (Central Asia), by MIRABDULLAYEV & KUZMETOV (1997).

Here, we will focus our attention on *T. taihokuensis*, which has a well-expressed subtropical Oriental range. The records cited above from south of the Aral Sea were the westernmost for this species. We have now found it considerably further west, in two lakes on the ancient bed of the Uzboy river that used to connect the Caspian and Aral Seas. However, more important from our point of view is the problem of its taxonomic status. It is necessary to emphasise that *T. taihokuensis* has not been well described up to the present, including its biometric characteristics (as proposed by RZOSKA 1930, developed by KOZMINSKY 1933, 1936, and used by RYLOV 1948, LINDBERG 1957, MONCHENKO 1974, etc.). DEFAYE et al. (1987: 3153) therefore stated that *T. taihokuensis* "should not be listed as valid until it has been critically studied". Here, we give a redescription of this species based on material collected by STAROSTIN in 1936 (holdings of Zoological Institute, RAS, St Petersburg).

Thermocyclops taihokuensis (Harada, 1931)

taihokuensis Harada, 1931: 149 [Mesocyclops (Thermocyclops)]; Shen et Sung Ta-Hslang, 1965: 175 (Thermocyclops); Herbst, 1986: 175; Mirabdullayev & Sharapova, 1994: 42; Mirabdullayev & Kuzmetov, 1997: 201.

Zoology in the Middle East 43, 2008: 99–104. ISSN 0939-7140 © Kasparek Verlag, Heidelberg