



A revision of the genus *Paranarthrurella* Lang, 1971a (Crustacea: Tanaidacea)

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Abstract

The revised genus *Paranarthrurella* Lang, 1971a includes three species: *P. caudata* (Kudinova-Pasternak, 1965), the type species of the genus, *P. dissimilis* (Lang, 1972), and *P. voeringi* (G.O. Sars, 1877), which were all originally and subsequently classified in other genera (*Leptognathia*, *Cryptocope*, *Robustognathia* and *Biarticulata*). The genus is defined by a set of specific characters: a long and narrow labrum, a rounded molar, large *lacinia mobilis* widely separated from incisor; maxillule with eleven spiniform setae distally and numerous simple setae on outer margin; maxilliped with narrow endites and two flat setae on the distal margin; and a chela with well calcified ‘crushing margins’. The genus is most close related to *Armatognathia* Kudinova-Pasternak, 1987 and it is suggested that both genera may constitute a new family.

Key words: Arctic Ocean, Tanaidacea, *Cryptocope*, *Biarticulata*, *Robustognathia*, Agathotanaidae, Anarthruridae

Introduction

The genus *Paranarthrurella* was established by Lang in 1971 for *Leptognathia caudata* Kudinova-Pasternak, 1965 and primarily classified in the family Anarthruridae Lang, 1971a. It is unclear how Lang (1971a) deduced that the cheliped is attached to the cephalothorax by a pseudocoxa in *L. caudata*, as no such information was given in the original description. In his discussion Lang (*ibid.*) mentioned that the genus is an atypical anarthrurid owing to the regular structure of the uropods which are composed of two well-developed rami and they lack the protopod projection that characterizes all members of the Anarthruridae (and also Agathotanaidae Lang, 1971a). Based on the last feature, as well as the pseudocoxa on the chelipeds (*sic!*), Larsen and Wilson (2002) have classified *Paranarthrurella* in the Agathotanaidae.

The north-eastern Atlantic “*Tanais*” *voeringi* was initially described by G.O. Sars (1877, as *Tanais Vøringi*). G.O. Sars (1882, 1885) subsequently recognized it as member of *Cryptocope* G.O. Sars, 1882. Complementary descriptions were given by Hansen (1913) and G.O. Sars (1885) but they only concerned some superficial features such as habitus and general structure of the cheliped, pereopods and uropods. Sieg (1983) moved the species into the “catch-all” genus *Leptognathia* G.O. Sars, 1882. Larsen and Shimomura (2007) erected the genus *Biarticulata* to accommodate those leptognathid species with a biarticulated exopod of the uropod. That pragmatic and clearly polyphyletic genus incorporated *T. voeringi* along with eight other species (see Bird 2007). A comprehensive study of recent specimens of *T. voeringi* collected in Fram Strait (West of Spitsbergen) and of the types loaned from Natural History Museum (University of Oslo) allowed us to deduce *T. voeringi* and *P. caudata* belong in the same genus – *Paranarthrurella*.

Two other species that have to be included in *Paranarthrurella* on account of having the same peculiar mouthparts are: *Leptognathia dissimilis* Lang, 1972, which was classified to the monotypic genus *Robustognathia* by Kudinova-Pasternak (1989) and *Strongylura arctophylax* (Norman & Stebbing 1886) known from only one specimen. The later species was included to *Cryptocope* by Hansen (1913) and later by Sieg (1983) transferred to genus *Leptognathia*. In this paper *S. arctophylax* is synonymized with *T. voeringi*.