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Selected species of the family Diastylidae (Cumacea, Peracarida, Crustacea) from the deep-sea of the NW Pacific

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Abstract

New species of the genera *Diastylis*, *Divacuma* and *Leptostylis* are described. Also a new species of the genus *Pseudoleptostyloides*, known from the Atlantic, is described for the NW Pacific. Additional information is given on *Leptostyloides quadridentata***.**

Key words: Cumacea, Diastylidae, new species, deep sea, NW Pacific

Introduction

The genus *Pseudoleptostyloides* Mühlenhardt-Siegel, 2014 was erected to accommodate species from the deep Atlantic with a short, globose carapace with battlement-like crenulations, long uropods, uropod exopods longer than the endopods, and a short telson. A very important diagnostic character for the genus is a short median cuspidate seta detectable at high magnification between the two strong terminal telson setae. Although usually the diastylids do have a pair of terminal setae on the telson, there are some exceptions: in some species of the genus *Dimorphostylis* Zimmer, 1921 the adult male develops a third terminal spine (Harada, 1960) and in *Diastylopsis trisetosa* Gerken 2014, which has three terminal telson setae in females.

As the telson in the new genus has the typical diastylid form and the specimens resemble at the first glance very much the genus *Leptostylis* Sars, 1869, the new genus was placed in the family Diastylidae. The uropod exopods of all specimens were much longer than the endopods.

The genus *Leptostyloides* Jones, 1969 was monotypic for a long time, the diagnosis was "Similar to *Leptostylis* but with the exopods of the uropods longer than the endopods" (Jones, 1969). Băcescu (1992) synonymized it with the genus *Leptostylis* but Ledoyer (1997) resurrected the genus *Leptostyloides* based on the character of the uropod exopod being longer than the endopod , to accommodate a second species *Leptostyloides longiappendiculata*. However, Mühlenhardt-Siegel (2014) argued that the dorsal hump (which usually bears strong teeth) on pleonite 5 is a more striking character, and placed *L. longiappendiculata* in the new genus *Pseudoleptostyloides*.

The genera *Diastylis* and *Leptostylis* are represented in the deep sea of the NW Pacific Ocean with nine *Diastylis* species (*D. aspera* Calman, 1912, *D. bidentata* Calman, 1912, *D. dalli* Calman, 1912, *D. loricata* Lomakina, 1955, *D. moskalevi* Vassilenko & Tzareva, 2004 , *D. omorii* Gamô, 1968, *D. ornata* Lomakina, 1952, *D. paraspinulosa* Zimmer, 1926, *D. samurai* Zimmer, 1943) respectively one known *Leptostylis* species (*L. spinescens* Gamô, 1987). One additional species for each genus is described in the following.

Material and methods: The material was collected with a camera-epibenthic sledge (C-EBS) modified after Brenke (2005) during the Russian-German KuramBio (Kurile Kamchatka Biodiversity Studies) Expedition with the German RV "Sonne" (cruise 223) in August 2012. For details see Table 1.

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