



First record of the genus *Kliopsyllus* Kunz, 1962 (Copepoda Harpacticoida, Paramesochridae) from Northeastern Brazil with description of the deep-sea species *Kliopsyllus minor* sp. nov.*

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Abstract

Sediment samples were collected from the deep sea adjacent to the State of Sergipe (Northeastern Brazil) within the framework of the Sergipe Continental Slope Environmental Characterization Project (coordinated by PETROBRAS, the Brazilian Petroleum Company S/A). These revealed a new species of the family Paramesochridae (Copepoda, Harpacticoida). *Kliopsyllus minor* sp. nov. is the smallest species discovered in this genus, with a body length of 0.19 mm in the adult male. Furthermore, it is one of the three *Kliopsyllus* species registered from the deep sea so far. In almost all *Kliopsyllus* species, the endopod of P4 is one-segmented. Only three species, i.e. *Kliopsyllus andeep* Veit-Köhler, 2004 from the abyssal Weddell Sea, a new species by Veit-Köhler and Thistle from the San Diego Trough (deep Pacific Ocean) and the new species presented here, show a two-segmented endopod in the P4. *Kliopsyllus andeep* is distinguished by the presence of strong, chitinous processes at the telson, and additional setae at the endopods of P3 and P4. The new Pacific species and the new species from Brazil can be distinguished by the shape of the segments of the swimming legs and detailed characteristics of their setae and spines.

Key words: Deep sea; Diversity; Harpacticoida; Paramesochridae; *Kliopsyllus*; Sergipe; Atlantic Ocean

Introduction

Compared to continental shelves, the diversity and species composition of Copepoda, Harpacticoida from the deep sea are poorly investigated. Although the number of harpacticoid copepod species is approximately 4,300 (Wells 2007), Seifried (2004) estimated that only about 460 species of Harpacticoida were described from the deep sea at that time.

As in most of the Paramesochridae, the species of the genus *Kliopsyllus* Kunz, 1962 are characterized by small cylindrical bodies and reduced segmentation and setation of the swimming legs. They frequently inhabit shallow waters and beaches (Nicholls 1939; Kunz 1962; Mielke 1984a, b, 1985, 1987; Mitwally & Montagna 2001). At present, *Kliopsyllus* includes 29 valid species and 7 subspecies described for these habitats.

Recently, two international deep-sea cruises, DIVA to the Angola Basin and ANDEEP to the northern Weddell Sea revealed the presence of two new *Kliopsyllus* species from the deep sea (Veit-Köhler 2004; 2005). *Kliopsyllus minor* sp. nov. is the third species described from the deep sea and raises the number of