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## A new species and first record of the genus *Shoemakerella* Pirlot, 1936 (Crustacea: Amphipoda: Lysianassidae) from Brazil

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### Abstract

A new species of the genus *Shoemakerella* Pirlot, 1936 is described for the Southeastern Brazilian continental shelf. The new species is easily recognized from the others in the genus mainly by the shape of the gnathopod 2. This is the first species of *Shoemakerella* from Brazilian waters.

**Key words:** taxonomy, Biodiversity, Lysianassoidea, *Shoemakerella subchelata* sp. nov., Southwestern Atlantic, Brazil.

### Introduction

The superfamily Lysianassoidea Dana, 1849 is characterized by lacinia mobilis only on left mandible or absent, antenna 1 with peduncle short and stout, and flagellum with callynophore, antennae with calceoli, rostrum reduced, gnathopod 2 with ischium elongate, dactylus minute, and propodus mitten-shaped. It is an abundant and diverse part of several marine ecosystems, apparently with high success in cold water. However, some papers have shown that the lysianassoids are highly important also in low-latitude environments (Ledoyer 1986; Lowry & Stoddart 1993, 1994, 1995, 1997).

Recent studies indicate that the Brazilian fauna is rich in Amphipoda and in the superfamily Lysianassoidea Dana, 1849. So far, there are 16 species recorded for Brazilian waters, of which 13 were described or recorded after the end of the twentieth century (Freire & Serejo 2004; Senna 2007, 2009; Senna & Serejo 2007, 2008a, b; Senna & Souza-Filho 2010). In the early 1970's, the Instituto Oceanográfico da Universidade de São Paulo conducted many campaigns along the south and south-eastern Brazilian Continental Shelf, in the scope of the MBT Project (Mini Biological Trawl), resulting in the discovery of several taxa (Souza-Filho *et al.* 2012a, b; Marques-Junior & Senna 2013). In this paper we establish a new species of *Shoemakerella* in the family Lysianassidae Dana, 1849 with material collected off the northern coast of the state of Rio de Janeiro.

### Material and methods

The material examined is composed of three females and was collected from a single sample, on 5 September 1970, coordinates 22°00'S, 40°06'W, off the municipality of Quissamã, northern coast of the state of Rio de Janeiro, at a depth of 90 m, along with pieces of the seaweed *Laminaria*, with a *Mini Biological Trawl* rectangular dredge, in the scope of Projeto MBT, organized by Instituto Oceanográfico da Universidade de São Paulo (IO-USP). The specimens of the type series are kept in 70% ethanol in the Crustacea Collection of *Museu de Zoologia da Universidade Federal da Bahia*, Salvador (UFBA). For the taxonomic study, the appendices and mouthparts of the

dactylus simple, curved. Gnathopod 2 strongly subchelate, coxa  $2.5 \times$  as long as wide, with small posteroventral notch, basis long,  $1.8 \times$  longer than the ischium, posteriorly curved; ischium long,  $3 \times$  as long as wide; merus rounded in the posterodistal margin, with tuft of setae; carpus expanded posteriorly, with setae on the side and 10 large setae in the anterodistal margin; propodus, subtrapezoidal, distally broadened, anterodistal corner truncate with one tuft of stout setae, anterior margin setose, palm acute, concave, slightly setose, palmar corner produced and rounded, covered by small scales; dactylus with a robust unguis, curved, small setae in the inner margin, not reaching the palmar corner.

Pereopod 3, coxa  $2.4 \times$  longer than wide; merus, margin slightly expanded anteroventrally, with one seta; dactylus simple. Pereopod 4, coxa expanded posteroventrally, anteroventral corner rounded. Pereopod 5, coxa rounded in the distal margin. Pereopod 6, coxa small; anterodistal margin expanded, posterior margin densely setose, concave. Pereopod 7, coxa small, posterior margin serrate, concave, anterior margin setose. Epimeral plate 1, posterior margin retracted and convex. Epimeral plate 2, posterior margin quadrate, anterior margin rounded with three setae. Epimeral plate 3, posterior margin straight, posteroventral corner rounded, with 1 anterior seta.

Uropod 1, peduncle with 3 dorsal setae; rami of subequal length. Uropod 2, peduncle with five setae; outer ramus with five setae; inner ramus with three setae and constriction present. Uropod 3, peduncle, dorsolateral flange present, with three small dorsal setae; outer ramus 1-articulate. Telson entire, slightly longer than wide, apical margin slightly concave, with asymmetrical setation, with one small stout seta and three submarginal plumose setae.

**Geographic distribution and bathymetry.** The new species is known only from the type locality,  $22^{\circ}00'S$ ,  $40^{\circ}06'W$ , off Quissamã, Northern coast of Rio de Janeiro State, 90 m depth.

**Remarks.** *Shoemakerella subchelata* **sp. nov.** can be easily distinguished from the other species in the genus by: maxilla 1 STA simple and subconical; gnathopod 2 strongly subchelate, with propodus, subtrapezoidal, distally broadened, palm acute, concave, and palmar corner produced and rounded.

In addition, the basis of pereopod 7 in *S. subchelata* **sp. nov.** has a concave posterior margin, similar to the Australian species, *S. barnardi*, not present in *S. cubensis* or *S. lowryi*. *Shoemakerella subchelata* **sp. nov.** differs from *S. barnardi* in having a concave posterior margin on the basis of pereopod 6 and a slightly concave apical margin on the telson. The Australian species, *S. barnardi*, has a slightly convex posterior margin on the basis of pereopod 6 and the apical margin of telson is rounded to angulate.

The genus was known until now only from the western North Atlantic Ocean and the Indo-West Pacific Ocean (Lowry & Stoddart 2009). *Shoemakerella subchelata* is the first record of *Shoemakerella* from the South Atlantic Ocean.

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