



## ***Phalloseucon abyssalis*, a new cumacean genus and species (Crustacea: Peracarida: Leuconidae) from the Peru Basin**

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### **Abstract**

A new genus and species, *Phalloseucon abyssalis*, of the cumacean family Leuconidae from the Peru Basin is introduced. The new genus is characterised in having penial lobes and one pair of pleopods in males. It is suggested that the species *Eudorella redacticruris* Watling and McCann, 1997 is transferred into a new leuconid genus: *Pseudeudorella*.

**Key words:** Peru Basin, deep sea, taxonomy, new genera, Cumacea, Leuconidae

### **Introduction**

Nothing was known about the deep-sea Cumacea of the eastern Pacific until Bacescu (1972) described the new genus *Archaeocuma* from the Peru–Chile Trench and erected the new family Archaeocumatidae. Some years later, Muradian (1979 a, b) described three new nannastacid species from deep waters of Peru and Chile. Around the turn of the last century, Petrescu (1991, 1992, 1993, 1994, 1995, 2000, 2001) described 13 more species from the deep sea of the south eastern Pacific. Until now one species of the family Archaeocumatidae, four species and two genera of the Bodotriidae, ten species of one genus of the Leuconidae, and 13 species of five genera of the Nannastacidae are known from the south-eastern deep Pacific.

Only two cumacean genera, characterised by the presence of penial lobes in males, were known until now. *Archaeocuma* Bacescu, 1972 (Archaeocumatidae), comes from the Peruvian Trench (1016–2846 m). The penial lobes in this species are two penial conical tubercles between the fifth pereopods. The second species, *Campylaspenis* Bacescu and Muradian, 1974 (Nannastacidae), is described from the deep western Atlantic, south of Cape Hatteras (2081 m) with a “copulatory organ...” which is “...served in two cylindrical penes. Along the penis, unexpectedly well developed in the cumacean group, the ejaculatory duct may be noticed” (Bacescu and Muradian, 1974).

Watling and McCann (1997) described *Eudorella redacticruris* from the area off Santa Barbara, California, a species with highly reduced or missing fifth pereopods in both sexes, and the male having strongly developed penial lobes at the fifth pereonite. The authors followed the suggestions of Day (1978) and Ledoyer (1988) who were not convinced that the presence of penial lobes is a sufficient difference to warrant the erection of a new genus or family respectively. So they transferred *Campylaspenis rowei* into *Campylaspenis rowei* and *Archaeocuma*, remaining a genus, as a member of the family Lampropidae.

In order to keep the diagnosis of taxa clear, I would like to suggest the reinstatement of the genus status *Campylaspenis*.

In the case of *Archaeocuma*, the character which makes the members unique is not only the presence of penial lobes in males, but also the presence of pleopods and the rudimentary exopod of pereopod 4 in adult