



Leptathanas powelli gen. nov., sp. nov, a new infaunal alpheid shrimp associated with upogebiid mudshrimps in Nigeria (Crustacea, Decapoda)

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Abstract

A new alpheid shrimp genus and species is described from the Niger delta in Nigeria. *Leptathanas powelli* gen. nov., sp. nov. appears to be associated “commensally” with burrows of mudshrimps, *Upogebia furcata* (Aurivillius, 1898) (Thalassinidea, Upogebiidae). *Leptathanas* gen. nov. is superficially similar to *Leptalpheus* Williams, 1965, a genus composed exclusively of infaunal species. However, it is more closely related to a generic complex around *Athanas* Leach, 1814, and in particular to *Athanopsis* Coutière, 1896. The main diagnostic features of *Leptathanas* gen. nov. are the presence of an articulated plate on the sixth pleonite; the frontal margin of the carapace with a very short rostral projection and without orbital teeth; the asymmetrical and unequal chelipeds carried folded, with the propodus fitting in a ventral excavation of the merus; and the presence of stout cuspidate setae on the protopod of the uropod.

Key words: Crustacea, Decapoda, Caridea, Alpheidae, *Leptathanas*, new genus, new species, infaunal shrimp, Nigeria, West Africa, eastern Atlantic

Introduction

Alpheid shrimps represent one of the most diverse families of the order Decapoda, with over 600 species classified in 44 genera. However, as the steady stream of new genera described since 2000 (Anker & Iliffe, 2000; De Grave & Anker, 2000; Dworschak *et al.*, 2000; Xuân, 2001; Anker & Felder, 2005; Anker & Jeng, 2006, 2007; Anker, Poddoubtchenko & Jeng, 2006; Anker, Poddoubtchenko & Werthmann, 2006; Anker & Dworschak, 2007; Anker, 2007) highlights, the total biodiversity of this family is relatively unknown, even at the generic level. Remarkably, the vast majority of these new genera are not due to taxonomic reorganisation of already described species, but represent previously unknown lineages discovered in the field. Many of these new genera/species were collected from burrows of larger animals, such as Thalassinidea, Stomatopoda, or other Alpheidae.

The alpheid fauna of the eastern Atlantic Ocean is relatively species-poor, especially compared to that of the Indo-West Pacific and the western Atlantic; it currently comprises about 50 species in 10 genera (Holthuis, 1951; Crosnier & Forest, 1966; Dworschak *et al.*, 2000; Anker & Dworschak, 2004; Anker *et al.*, 2005; Anker & Ahyong, 2007a). The vast majority of these species were recorded from tropical latitudes, i.e., from Senegal and the Cape Verde Islands south to the Gulf of Guinea. Within the tropical eastern Atlantic, only a few alpheid genera/species were previously known as infaunal with other invertebrate taxa: *Salmeoneus caboverdensis* Dworschak, Anker & Abed-Navandi and *Deioneus sandizelli* Dworschak, Anker & Abed-Navandi, both associated with *Neocallichirus pachydactylus* (A. Milne Edwards) (Thalassinidea, Callianassidae) in Cape Verde (Dworschak *et al.*, 2000), and *Alpheus ribeiroae* Anker & Dworschak from burrows of an