



Description of two new species of *Dorsiceratus* Drzycimski, 1967 (Copepoda: Harpacticoida: Ancorabolidae) from Sedlo and Seine Seamounts (Northeastern Atlantic) and remarks on the phylogenetic status of the genus* §

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Abstract

Two new species of *Dorsiceratus* Drzycimski, 1967 (Copepoda, Harpacticoida, Ancorabolidae), *Dorsiceratus wilhelminae* sp. nov. and *D. dinah* sp. nov. are described from Sedlo and Seine Seamounts, respectively (both northeast Atlantic). These are the first records of *Dorsiceratus* species from seamount summits. Both new species resemble the described species *D. octocornis* Drzycimski, 1967, *D. triarticulatus* Coull, 1973, and *D. ursulae* George, 2006, with respect to most morphological features. On the other hand, *D. wilhelminae* sp. nov. has long spinules at the inner margin of the A2 enp, while *D. dinah* sp. nov. bears two, rather than one, tubepores dorsally on third abdominal somite, and a geniculate first outer seta on P1 exp2. These characters are considered as apomorphic relative to the described *Dorsiceratus* species. As discussed in the present paper, the maintenance of a genus *Dorsiceratus* appears to be problematic. Although specimens may be assigned without difficulty to a group “*Dorsiceratus*”, such assignments are based on diagnostic features only; no clear-cut apomorphies have been detected so far to characterize the monophyly of *Dorsiceratus*. Just two apomorphic characters appear to be synapomorphies for all of the described *Dorsiceratus* species: 1) P2 enp2 with one rather than two setae and 2) P4 exp sexually dimorphic. Unfortunately, these features are relatively widespread within the *Ceratonotus*-group sensu Conroy-Dalton (2001) and therefore of rather low value. The authors decided, however, to retain the genus *Dorsiceratus* until new insights provide more information to support or disprove that hypothesis.

Key words: Systematics, deep sea, seamounts, OASIS, Ancorabolinae, *Ceratonotus*-group, *Dorsiceratus wilhelminae* sp. nov., *Dorsiceratus dinah* sp. nov.

Introduction

As seamounts are of increasing interest for marine biologists (cf. Pitcher *et al.* 2007), the number of research cruises aiming to sample seamount summits increased remarkably in the past decade and are likely to continue increasing. For meiobenthologists, some important questions centre around chorological, phylogenetic, and biogeographical themes (e.g. Bartsch 2003; Gad & Schminke 2004; George 2004; George & Schminke 2002). We are interested in structure and composition particularly of the summit communities, asking e.g. (i) is there frequent (geographical and/or bathymetrical) species exchange?; (ii) are there isolated communities with high numbers of endemic species?; (iii) how did the meiofauna get there?; (iv) are the summit communities characterized by high or low species diversity (see Thistle 1998)? In the framework of biogeographical questions, it is important to establish where the species that inhabit a seamount’s summit