

A new tanaidacean subfamily, Bathytanaidinae (Crustacea: Paratanaididae), from the Australian continental shelf and slope

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Abstract

Four new species of the paratanaid genera *Bathytanais* Beddard and *Pseudobathytanais* Kudinova-Pasternak are described from Australia. *Bathytanais culterformis* and *B. arenamans* were found on the northwestern continental shelf off western Australia. *Bathytanais fragilis* and *Pseudobathytanais gibberosus* are described from the southeastern Australian continental slope. *Bathytanais* and *Pseudobathytanais* are placed in the new subfamily Bathytanaidinae, which represents a group of highly derived tanaidomorphs with uniquely modified long setulated setae on the antennule and antenna. The new subfamily is further characterized by having a well-developed, anteriorly directed, epistomal process. The distinctive morphology of the antennule and antennae indicate that members of the Bathytanaidinae have evolved as suspension or filter feeders. A key to the species within the Bathytanaidinae is presented. An unidentified tantulocarid crustacean parasite occurred on the pleotelson of two specimens of *P. gibberosus*, constituting the first host record on a member of the Paratanaididae.

Key words: Tanaidacea, Paratanaididae, *Bathytanais*, *Pseudobathytanais*, Australian shelf and slope

Introduction

Members of the paratanaid genus *Bathytanais* Beddard, 1886b are presently known only from the Indo-Pacific region (Larsen & Wilson, 1998; Bird & Bamber, 2000), while the related monotypic genus *Pseudobathytanais* Kudinova-Pasternak, 1990 is known from the eastern Pacific off South America. Both genera are distinguished from *Paratanais* Dana, 1852 (the only other genus currently assigned to the family) and other tanaidaceans by the unique setation of antennule and antenna. The members of *Bathytanais* can all be identified from structures on antennal articles 2 and 3. Three species, *B. bathybrotus* (Beddard,