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Three new species of *Dysponetus* Levinsen, 1879 (Polychaeta: Chrysopetalidae) from the South Atlantic and Southern Ocean, with a re-description of *Dysponetus bulbosus* Hartmann-Schröder, 1982

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Abstract

Three new species of *Dysponetus* (Polychaeta: Chrysopetalidae) are described from the South Atlantic and Southern Ocean: *Dysponetus ovalisetosus* n. sp. from the Falkland Islands, *Dysponetus bricklei* n. sp. from South Georgia and *Dysponetus antarcticus* n. sp. from Antarctica are all characterized by having notochaetae that are oval in cross-section in contrast to the D-shape described for seven of the other species of *Dysponetus*. *Dysponetus antarcticus* n. sp. is the most distinct due to the combination of both a ventral cirrus on segment 3 and four eyes. Formerly mis-identified as *Dysponetus bulbosus* Hartmann-Schröder, 1982, it was discovered while clarifying the contradictory descriptions of that species published by Hartmann-Schröder in 1982 and 1986. *Dysponetus bulbosus* is re-described and newly figured. *Dysponetus bricklei* n. sp. and *Dysponetus ovalisetosus* n. sp. can be determined by comparing several characters including position of the median antenna, shape of the palps and cirri, and the number and shape of both the noto- and neurochaetae.

Key words: taxonomy, notochaetae, Antarctica, South Georgia, Falkland Islands

Introduction

There are currently thirteen described species of the genus *Dysponetus* Levinsen, 1879 from around the world, with the most recent descriptions being from Europe (*Dysponetus joeli* Olivier *et al.*, 2012; Darbyshire 2012) and the Pacific coast of North America (*Dysponetus populonectens* Pleijel *et al.* 2012). Most species are described from shallow water although a small number have been reported from deep (> 400 m) to abyssal depths (*Dysponetus caecus* (Langerhans, 1880)—Böttgemann 2009, Watson *et al.* 2014; *Dysponetus gracilis* Hartman, 1965—Hartman & Fauchald 1971, Aguirrezabalaga *et al.* 1999; *Dysponetus hesionides* Böttgemann, 2009; *Dysponetus profundus* Böttgemann, 2009). All other species occur in shallow (less than 100 m) water, often 0–10 m, with the exception of *Dysponetus paleophorus* Hartmann-Schröder, 1974a which was described from 255 m off Norway. Most recently, Watson *et al.* (2014) listed an unidentified species of *Dysponetus*, from 133 m on a Northeast Atlantic seamount. Although not in good enough condition to identify definitively or describe separately, *Dysponetus* sp. 1 was described as being most like *D. joeli*, a shallow water European species currently known from water depths to 47 m.

A survey of the shallow subtidal and intertidal Falkland Islands Polychaeta was initiated in 2011 and several specimens of *Dysponetus* were collected in both 2011 and 2013. Subtidal sites were sampled both to the east and west of East Falkland, with *Dysponetus* collected only from the eastern sites. Additionally, two specimens of *Dysponetus* were collected as part of a large, quantitative intertidal and subtidal species and habitat survey of South Georgia (Shallow Marine Surveys Group, unpublished data). The survey spanned the entire north coast of South Georgia, but despite the scope of the survey, only a single specimen was collected at each of two sites.

There have been no previous records of this group from the southwest Atlantic and the only records from