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Taxonomy and distribution of *Terebellides* (Polychaeta, Trichobranchidae) in Icelandic waters, with the description of a new species

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Abstract

Based on material collected during the BIOICE project, the taxonomy and distribution of *Terebellides* (Polychaeta; Trichobranchidae) in Icelandic waters is presented. *Terebellides stroemii* Sars, 1853 and *Terebellides gracilis* Malm, 1874 (as *Terebellides williamsae* Jirkov, 1989) were previously reported from the area. *Terebellides atlantis* Williams, 1984 is reported for the first time after the original description and redescribed. *Terebellides bigeniculatus* **sp. nov.** is diagnosed by the presence of two thoracic chaetigers with geniculate chaetae. *Terebellides williamsae* Jirkov, 1989 is proposed as a junior synonym of *T. gracilis*, whose holotype is redescribed herein. Several body characters with high taxonomic value in *Terebellides* are reviewed under the SEM; additions to the diagnosis and new potential characters for a future taxonomic revision and phylogenetic study of the genus are also suggested. The geographical and bathymetric distribution of each species in relation to the GIF Ridge is discussed, and a key to *Terebellides* species from North East Atlantic waters is provided.

Key words: Deep sea, distribution, Iceland, new species, taxonomy

Introduction

Since the description of *Terebellides stroemii* Sars, 1853 in Norwegian waters, type species of the genus *Terebellides* (Polychaeta, Trichobranchidae), the global knowledge of the taxonomy and diversity of this genus in world oceans did not substantially improve until the 1980s. The only significant previous contributions were those derived from the study of material collected in a number of oceanographic expeditions, which resulted in the description of several new species (e.g. McIntosh 1885; Hessle 1917; Caullery 1944; Hartman & Fauchald 1971). The work by Williams (1984), who reviewed the taxonomic status of *T. stroemii*, at that time considered a cosmopolitan species, and cited in a wide variety of habitats in all oceans (e.g. Day 1967), represented the beginning of a general review of the taxonomy and diversity of this genus. Williams (1984) examined specimens identified as *T. stroemii* from different parts of the world and compared them with material from the type locality, concluding that this species is not cosmopolitan. She described four new species and left four others undescribed, awaiting new material. Soon after, Imajima and Williams (1985) found three sympatric species of *Terebellides* in two bays of Japan, all of them new to science; no specimens of *T. stroemii* were found among that material. Holthe (1986a) still suggested in his work a cosmopolitan distribution for *T. stroemii*, but aware of Williams' research, recognized that many records might correspond to misidentified material or undescribed new species. Nevertheless, he argued that the only species present in Norwegian waters was *T. stroemii*. In the 1990s, Solis-Weiss *et al.* (1991) and Bremec and Elias (1999) described new species from the Atlantic coast of Central and South America.

More recently the taxonomical knowledge of trichobranchids increased substantially with revisionary work from Australia (Hutchings & Peart 2000), the description of new species in California, Venezuela, Brazil, Indone-

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