Revision of the genus Filellum Hincks, 1868 (Lafoeidae, Leptotheccata, Hydrozoa)

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Abstract

A taxonomic review of the cosmopolitan genus Filellum was performed considering morphology, morphometry and cndome. Species for which we had access to materials were redescribed and morphologically characterized based on optical and scanning electron microscopy (SEM). The materials examined belong to museum collections, including type specimens. All records found in the literature were checked. Our analyses confirmed the validity of 10 out of the 18 nominal species referred to the genus, and established four others (F. adnatum, F. bouvieri, F. contortum and F. plicatum) as species inquirenda. A new species, Filellum bouvetensis sp. nov., is described. The species Reticularia annulata Watson, 1973, type species of the genus Corystolona Watson, 2002, has its type specimen referred to the genus Filellum, composing Filellum annulatum (Watson, 1973). We provide a key for the identification of the valid species of the genus Filellum.

Key words: Lafoeidae, Filellum, taxonomy, morphology, species inquirenda

Introduction

The taxonomy and phylogenetic relationships of the hydrozoan family Lafoeidae are obscure. Historically, many subfamilies have been assigned to Lafoeidae: Bonneviellinae Broch, 1909; Hebellinae Fraser, 1912; Lafoeinae A. Agassiz, 1865; Lictorellinae Naumov, 1960; and Zygophylacinae Quelch, 1885. Some of these groups/names are not used in association with Lafoeidae anymore, either because of affinities with other taxa (e.g., Bonneviellinae) or taxonomical priority (e.g., Lictorellinae). Calder (1991: 30–32) gave an historical account of the taxonomy of the family and its subfamilies, and a complete list of the names associated with the family is provided in Marques et al. (2006a). Marques et al. (2006a) carried out cladistic analyses of the families Lafoeidae and Hebellidae in order to investigate former suprageneric classifications and the boundaries of the families, concluding that classical ‘Lafoeidae’ must be separated into two families: Hebellidae and Lafoeidae, the latter including the subfamilies Lafoeinae and Zygophylacinae. Members of Lafoeidae are characterized by the presence of copinia, a reproductive structure composed of aggregated gonothecae, in which modified hydrothecae may be present as a protective structure (Peña Cantero et al. 1998; Marques et al. 2006a–the character is reversed in Cryptolarella, see Marques et al. 2005a).

The confusing taxonomic history of Lafoeidae is also observed in many of its genera. In a series of papers, we have reviewed several genera included in the Lafoeidae / Hebellidae, such as Bedotella Stechow, 1913a (Marques et al. 2004), Abietinella Levinsen, 1913 (Marques et al. 2005b), Cryptolarella Stechow, 1913a (Marques et al. 2005a), Hallisiphonia Allman, 1888 (Marques et al. 2006b), and Acryptolaria Norman, 1875 (Peña Cantero et al. 2007, see also Peña Cantero et al. 2004a). Herein we continue this series and review the genus Filellum Hincks, 1868.