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

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Abstract

A taxonomic review of the cosmopolitan genus *Filellum* was performed considering morphology, morphometry and cnidome. 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 coppinia, 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 taxonomical 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), *Halisiphonia* 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.

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