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Two new species of cheilostome bryozoans from the South Atlantic Ocean

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Abstract

Two new species of cheilostome bryozoans are described from Bahia and Espírito Santo States, Brazil—*Calyptooecia conuma* n. sp. and *Hippotrema fissurata* n. sp. Both genera are registered for the first time in the South Atlantic Ocean. Inter alia, *Calyptooecia conuma* n. sp. is characterized by the presence of dimorphic brooding zooids with relatively small orifices and no perial tubercles, contrasting with bigger non-brooding zooids having larger orifices surrounded by perial tubercles. *Hippotrema fissurata* n. sp. differs from congeners in colony morphology and colour, in details of the oecium and in zooidal metrics. Specimens were collected on varied substrata, commonly calcareous nodules and shells as well as other bryozoans and sponges.

Key words: Bryozoa, Cheilostomata, *Calyptooecia*, *Hippotrema*, new species, taxonomy, Brazil

Introduction

Bryozoans constitute a phylum of colonial lophotrochozoan animals that are predominantly marine and occur in all the world's seas from the shore to abyssal depths (Dick *et al.* 2006). About 83% of the approximately 6000 named Recent species belong to the Cheilostomata (Bock & Gordon 2013), the most diverse living order, with a huge diversity of colonial morphologies and zooidal polymorphism. Cheilostomes are associated with virtually all types of marine ecosystems and substrata, including other organisms (e.g. Carter & Gordon 2007), hard outcrops, and sandy to muddy seabeds. The global bryozoan fauna, however, is still incompletely known (Florence *et al.* 2007), as is the distributional range of most species (Tilbrook, 2012).

Research on the Brazilian bryozoan fauna is increasing and fully 60 species of cheilostomes have been described since Vieira *et al.* (2008) published their checklist of Recent marine Bryozoa from Brazil (Ramalho *et al.* 2008; Santana *et al.* 2009; Ramalho *et al.* 2010; Vieira *et al.* 2010a,b; Ramalho *et al.* 2011; Vieira *et al.* 2012, 2013; Winston & Vieira 2013). The current number of cheilostome bryozoans from Brazil is 309 species.

Up to the present, 74 species have been reported from Bahia state and 100 from Espírito Santo (Vieira *et al.* 2008). These numbers, however, are preliminary since further studies are being conducted in both regions, allowing the identification and description of more species.

This paper describes two new species of Cheilostomata collected from Bahia and Espírito Santo, representing the first records of the genera *Calyptooecia* Winston, 1984 and *Hippotrema* Canu & Bassler, 1927 in the South Atlantic Ocean.

Material and methods

Specimens were collected by dredge on the continental shelf of Camaçari (12°40' S, 38°19' W) and Camamu Bay (13°53' S, 38°59' W), Bahia State, and at Monte Besnard (19°40' S, 38°08' W) and Ilha de Trindade (20°30' S, 37°18' W), Espírito Santo State, Brazil (Fig. 1). Specimens are lodged in the Bryozoa collection of the Museu de Zoologia at Universidade Federal da Bahia (UFBA). They were examined using scanning electron microscopy

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