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Aplidium (Ascidiacea, Polyclinidae) in central coast, Brazil

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Abstract

The genus *Aplidium* comprises a large number of species, seldom reported from Brazil. Here we describe some species in this genus, collected between 1999 and 2012, in coastal waters of the states of Bahia and Espírito Santo, in eastern central Brazil. Natural and artificial substrates were sampled by scuba diving at 5 to 23 m depths. Four species comprise the 16 samples. We propose synonymy of the species *A. lobatum* Savigny, 1816 and *A. quinquesusulcatum* Millar, 1977, both previously known from Brazil. The other species are *A. antillense* (first record for the Brazilian coast), and two new species, *A. elongatum* n. sp. and *A. selenium* n. sp.

Key words: Brazil, Tunicata, South Atlantic, taxonomy, biodiversity, antillense, lobatum, elongatum and selenium

Introduction

Polyclinidae is one of the most diverse families in the class Ascidiacea (Shenkar & Swalla 2011) within which *Aplidium* Savigny, 1816 is the most species-rich genus, with 50 known species in the Atlantic Ocean (Rocha *et al.* 2012). Of those 50 species, to date, only six have been reported in Brazil: *Aplidium accareense* (Millar, 1953), *A. lobatum* Savigny, 1816, *A. multisulcatum* Millar, 1977, *A. pentatrema* (Monniot, 1972), *A. quinquesusulcatum* Millar, 1977 and *A. traustedti* Millar, 1977. Of these, only *A. traustedti* in Ceará and *A. multisulcatum* in Maranhão and Pernambuco are endemic in Brazil (Millar 1977).

Aplidium accareense has been reported in two places in Africa, Gold Coast (Millar 1953) the type location, and Senegal (Monniot 1969; Lafargue & Whal 1987). Posteriorly, in the South Atlantic Ocean, the species has been reported in São Paulo (Rodrigues *et al.* 1998, Rocha & Bonnet 2009) and Santa Catarina, in the Arvoredo Archipelago (Rocha *et al.* 2005). This species has been considered cryptogenic due to its unknown origin and disjunct distribution (Rocha & Bonnet 2009). *Aplidium lobatum*, also cryptogenic, occurs in the Pacific and Atlantic Oceans, and has been reported from Alagoas and Bahia in Brazil (Lotufo 2002). *Aplidium pentatrema* (type location in Bermuda, Monniot 1972) has also been found in Guadeloupe (Monniot 1983) and southern Brazil (Rocha & Faria 2005), suggesting the possible introduction of the species in the South Atlantic.

Here, we describe three new species of *Aplidium* as well as a previously reported species from Brazil. We also propose a synonym for *A. quinquesusulcatum* Millar, 1977.

Material and methods

We collected in the Brazilian states of Bahia (BA) and Espírito Santo (ES) (Fig. 1), from 1999 to 2012, from both natural and artificial substrates at 5–23 m depth by SCUBA diving. In Bahia we collected at Pier Salvador, Pedra Verde, Quebramar Norte, Forte São Marcelo, Marina Mercado Modelo, Naufrágio Maraldi (shipwreck), Boião da