

The occurrence of *Scolymia cubensis* in Brazil: revising the problem of the Caribbean solitary mussids

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Abstract

Identification of scleractinian corals is traditionally based upon morphological analysis of skeleton traits. However, due to the influence of the environment on coral development, and the pattern highly variable of most diagnostical characters, additional information related to anatomy of soft parts, reproductive behavior and ecological interactions have been argued to support the distinction among similar morphotypes. Caribbean and South Atlantic *Scolymia* comprise a small group of solitary zooxanthellate corals: *Scolymia lacera*, *S. cubensis* and *S. wellsii* have been far subject of taxonomical misunderstandings. Aggressive interactions between *S. lacera* and *S. cubensis* were useful to validate their specific status. Nevertheless, *S. wellsii* has been erroneously suggested to be synonym of *S. cubensis*. Following Laborel, Lang and Wells' studies, we reinforce the individuality of the Atlantic *Scolymia* species, confirming the occurrence of *S. cubensis* to Brazil. Supporting newly-reported occurrences of Caribbean species along the Brazilian littoral, this finding is likely to contribute with a new perspective to assess the 'variability' among scleractinian corals. A key for the identification of the *Scolymia* species is provided.

Key words: Scleractinia, Mussidae, *Scolymia*, taxonomy, South Atlantic, Brazil

Introduction

Madrepora lacera from the West Indian was originally described by Pallas in 1766. Milne Edwards and Haime (1849) described a second species, *M. cubensis*, from St. Thomas,