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Morphological variation in the atlantic genus *Siderastrea* (Anthozoa, Scleractinia)

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ABSTRACT

Siderastrea *is a small genus of scleractinian corals, composed by zooxanthellate massive colonial forms. Besides contributing to the consolidation of the reef structure, represent a group with significant resistance to environmental stress. Until the 70's, its taxonomy was a complicated task, limited by the difficulty in identifying morphotypes. More recently, interspecific boundaries were redefined for 'Atlantic* Siderastrea *Complex'. However, despite new perspectives, including the occurrence of* S. radians *and* S. siderea *for Brazil, morphological patterns are still poorly studied and inconspicuous for several coastal areas. In order to characterize levels of intraspecific and interspecific morphological variation in* S. stellata *and* S. radians, *morphometric analysis were carried out in colonies from Bahia State coast. Samples were taken in Todos-os-Santos Bay and North Coast. We applied the Canonical Discriminate Analysis upon six corallite characters to evaluate the different levels of variation. The tests revealed that diameter of corallites, columella depth and number of septa varied among populations. Number of septa was the most important character for the species differentiation.* Siderastrea stellata, *with three different morphological patterns, was more variable than* S. radians.

Key-Words: Systematics; Modular organism; Morphotypes; Zooxanthellate coral; South Atlantic.

INTRODUCTION

Siderastrea is a small genus of scleractinian corals, composed by zooxanthellate, massive colonial forms. Besides contributing to consolidation of the reef structure, representes a group with wide environmental distribution and high resistance to environmental stress (Leão, 1986; Leão *et al.* 2003). In fact, it is commonly observed in the reef plateau where they usually occupy pools and semi-exposed areas (Laborel, 1967; Veron, 2000; Neves, 2004). Five species represents this group, of which, *Siderastrea savignyana*

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