

DESCRIPTION OF ASSEMBLAGE STRUCTURE OF FREE LIVING GENICULATE CORALLINE ALGAE BED IN ARRAIAL DO CABO, RJ.

Gessica da S. P. Lima¹; Frederico T. de S. Tamega²; Ricardo Coutinho¹

¹Programa de Pós-Graduação em Biotecnologia Marinha, IEAPM/UFF; Departamento de Biotecnologia Marinha, Instituto de Estudos do Mar Almirante Paulo Moreira (IEAPM)

*²Programa de Pós-Graduação em Oceanologia, Universidade Federal do Rio Grande - FURG.
e-mail: ¹limaahg@gmail.com*

Algae's beds are known as a place of high biodiversity and productivity. In Arraial do Cabo (RJ), Brazil, a free living geniculate coralline algae (GCA) bed was found in Cherne's bay at 10 meters depth. The aim of this research is to present a preliminary analysis of the assemblage of GCA bed. The samples were collected in different seasons (spring, summer and autumn). Ten meters transects (n=3) were placed at the bed. Along the transects the samples were photographed using quadrats (25x25cm) and collected at each 2 meters. Those samples were separated in similar morphological groups as rhodoliths, GCA, non-calcareous algae and fauna. To obtain the biomass, the calcareous algae was dried at 60°C until the complete drying and consecutively the weight was measured. Photoquadrats images were analysed using CPCe 4.1 to quantify the coverage. Both the seasons spring and summer were characterized by a high biomass of rhodoliths, while the GCA biomass was lower, however the coverage higher than the rhodoliths, probably because GCA are species presents in surface of the bed. During the autumn, ripple marks were visible, probably caused by a physical effect; when the biomass and the coverage of GCA was lower than the observed in others seasons. These results are important to understand the poorly known structure of the GCA bed, and to contribute in future studies to determine the primary productivity of the area.

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