HABITAT COMPLEXITY OF TWO DIFFERENT SUBSTRATES INFLUENCING PERIPHYTIC COMMUNITIES IN ANAPU RIVER BASIN

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ABSTRACT: Habitat complexity is one of the most important factors structuring biotic communities. In aquatic ecosystems, this complexity may be provided by macrophytes, which offers habitat for many aquatic organisms, especially periphyton. The objective of this study was to evaluate the substrate complexity on periphyton community. I tested the hypothesis that structural complexity level provided by roughness of the Nymphaea and Cabomba macrophytes will differently affects the periphyton community, increasing genus richness and density in more complex substrate (Cabomba), and that the genus composition and life forms will be different between both types of substrate. I found more exclusive genus in a substrate with a higher complexity (21, Cabomba), than substrate with a less complexity (10, Nymphaea). However, there was no significant difference in genus richness and density between two types of substrates. Furthermore, genus composition and life forms also were not showed difference between them. These results indicate that habitat complexity not influenced periphyton community in this study, but the beneficial effects of habitat complexity on this community cannot be completely excluded. Maybe, in a seasonal study it will be possible to see differences, since periphyton communities are driven by a complex interaction between seasonal water changes. Another explanation about the results of this study can to be attributed to different ages of the macrophytes, which were not considered here. Finally, the periphyton identification to species level maybe show a different pattern found at genus level.

Key words: *Caxiuanã; Macrophyte; Periphyton; Substrate complexity*.