ABUNDANCE OF MACROBENTHIC INVERTEBRATES AND PHYSICOCHEMICAL CHARACTERISTICS OF LAYON BILOG RIVER, BRGY. AGA, NASUGBU, BATANGAS

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ABSTRACT

Macrobenthic invertebrates are essential to the aquatic community. They are bottom-dwelling organisms. Their presence and absence can be a good indicator of both chronic and episodic impact of human disturbance to river condition and other aquatic environment. The research design used in this study is descriptive correlation. There were three sampling sites in Layon Bilog River, Nasugbu, Batangas such as the upstream, midstream and downstream. The sampling was conducted twice in dry season and twice in rainy season.

Eight species of macrobenthos were collected from the river. The most abundant species was *Melanoides maculata* followed by *Melanoides granifera*, *Melanoides* sp. 2, same abundance for *Melanoides* sp. 1 and *Corbicula* sp., then *Lymnaea* sp*., Planorbis* sp. and *Pomacea canaliculata* which has the least abundance.

The physico-chemical characteristics of the Layon Bilog River were determined. The average water temperature of the river is 23.79^{o}C. The average water pH is 7.62. The average salinity is 0.1. The average DO is 7.96 mg/L. The average Total Dissolved Solid is 0.08 mg/L. The average Conductivity is 176.07 S/m. The average nitrate content of the water is 1.73 ppm. The average phosphate content of the water is 1.82 ppm.

There was no significant difference in the abundance of macrobenthic invertebrates in terms of stations and season. Among all the physico-chemical characteristics, the dissolved oxygen showed a significant difference in season while the pH showed a significant difference in terms of both stations and season. Two-way ANOVA was used.

Pearson's Correlation Coefficient revealed a slight correlation, which means it is almost negligible, between the abundance of macrobenthos and the physicochemical characteristics of the river.