CORRELATION BETWEEN SEAGRASS ABUNDANCE AND PHYSICO-CHEMICAL CHARACTERISTICS OF MARINE WATERS IN CALATAGAN, BATANGAS

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ABSTRACT

Seagrass are highly productive marine angiosperms that grow in marine waters. This study focused primarily on the selected physico-chemical parameters such as temperature, pH, N, P, light, salinity, DO, and TDS in the marine waters of Calatagan, Batangas. These factors were correlated to the abundance of seagrasses in the sampling stations. A total of 5 species of seagrass were recorded during the sampling: These species are *Cymodocea serrulata* and *Halodule pinifolia*, under Family *Cymodoceaceae* and *Thalassia hemprichii*, *Halophila minor*, *Enhalus acoroides* under Family *Hydrocharitaceae*. The species with the highest relative abundance and importance value is *Cymodocea serrulata* and among the sampling sites in Calatagan, Batangas, Station 1 has the greatest species diversity of seagrass (Shannon diversity Index). The physico-chemical parameters temperature, nitrite and phosphate has a perfect negative correlation with the abundance of seagrass and the physico-chemical parameters pH, nitrate, light, salinity, DO and TDS showed a perfect positive correlation with the abundance of seagrass in Calatagan, Batangas.

Keywords: Correlation, Importance value, Physico-chemical parameters, Seagrass, Species diversity

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