


PHYTOPLANKTON AND ITS RELATION WITH PHYSICO-CHEMICAL
PARAMETERS DURING DRY SEASON AND WET SEASON
IN LAKE CALIRAYA, LUMBAN, LAGUNA



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ABSTRACT

The identification of the phytoplankton was correlated to the physico-chemical parameters of the Lake Caliraya, Lumban, Laguna in terms of the transparency, nitrogen, phosphorus, dissolved oxygen and pH from 2 designated stations on the day and night collections. The study showed variety of phytoplankton species during wet and dry season. There were 51 species from the 5 taxonomic divisions under 5 classes, 9 orders and 22 families that have been identified dominating the population of phytoplankton during the months of April and May collection. Thirty nine phytoplankton species are collected during dry season and 36 phytoplankton species are identified during the wet season. The top 3 phytoplankton species with the highest importance value during the dry season are *Lyngbya contorta*, *Spirulina princeps* and *Melosira italica* while during wet season, the top 3 phytoplankton species with the highest importance value of species are *Lyngbya contorta*, *Melosira princeps* and *Melosira italica*. The water qualities of the lake were determined and measured using different physico-chemical parameters that showed different degrees of correlation with the phytoplankton species: the temperature of water has moderately small negative correlation, the pH and D.O showed moderately small positive, thereby it is inversely proportional to the temperature while the transparency and phosphorus showed no correlation.

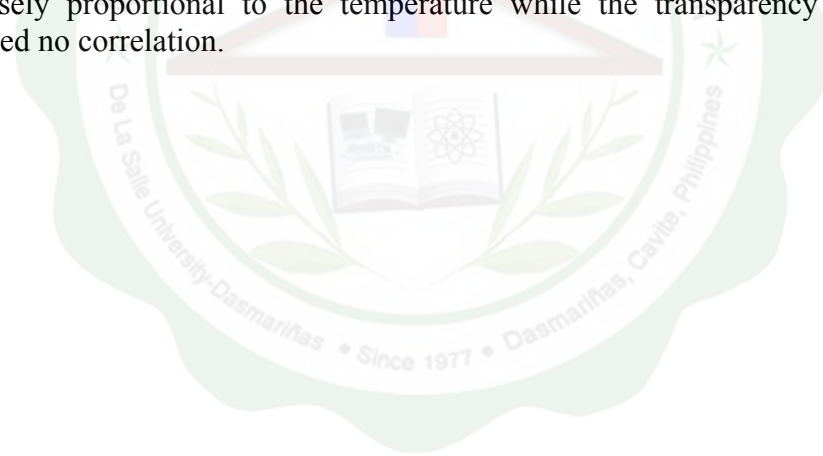


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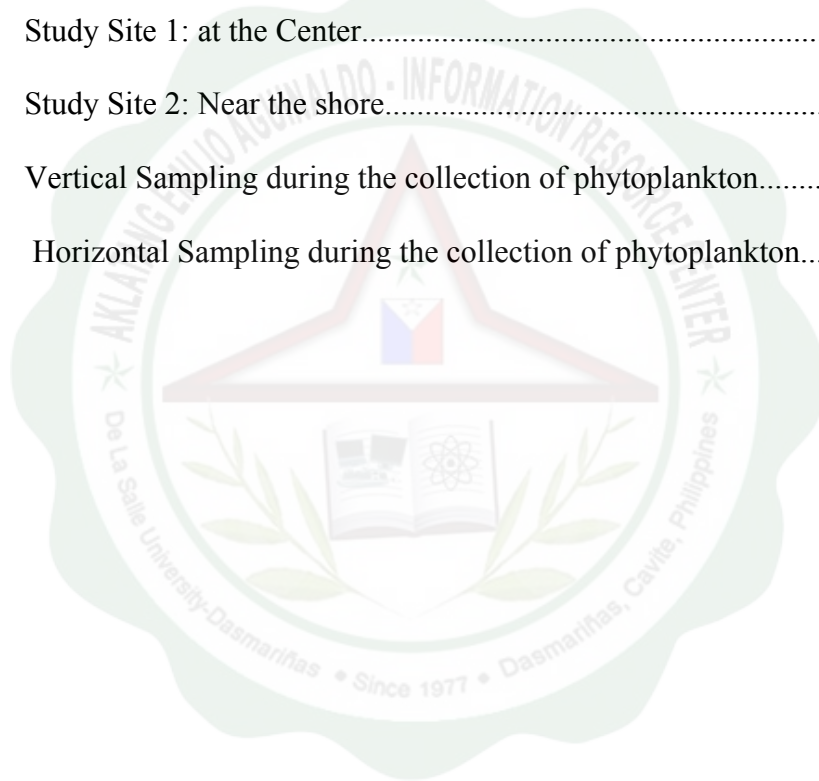
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