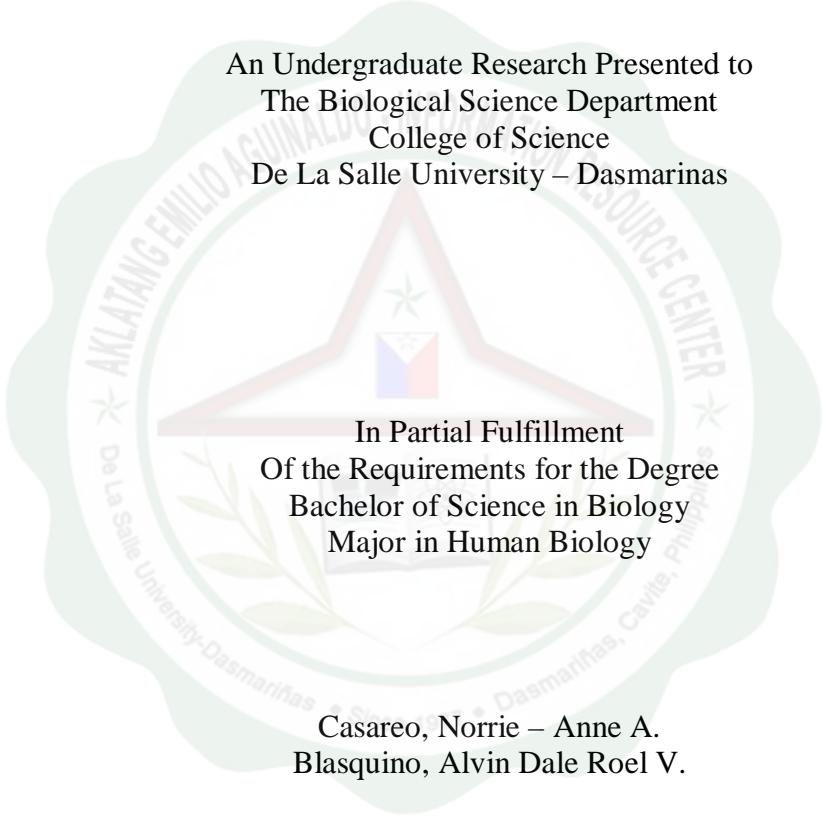


DIVERSITY OF DIATOMS IN RELATION TO THE PHYSICO-CHEMICAL
CHARACTERISTICS OF DASMARINAS RIVER,
DASMARIÑAS CAVITE

An Undergraduate Research Presented to
The Biological Science Department
College of Science
De La Salle University – Dasmariñas

The seal of De La Salle University - Dasmariñas is a circular emblem with a scalloped border. It features a central shield with a blue and red field, a white field with a green star, and a white field with a blue and red field. The shield is flanked by green laurel branches. The text "AKLATANG EMILIO AGUIBALDO" is written in a semi-circle at the top, and "DE LA SALLE UNIVERSITY - DASMARIÑAS" is written in a semi-circle at the bottom. The words "SOURCE CENTER" are also visible on the right side of the seal.

In Partial Fulfillment
Of the Requirements for the Degree
Bachelor of Science in Biology
Major in Human Biology

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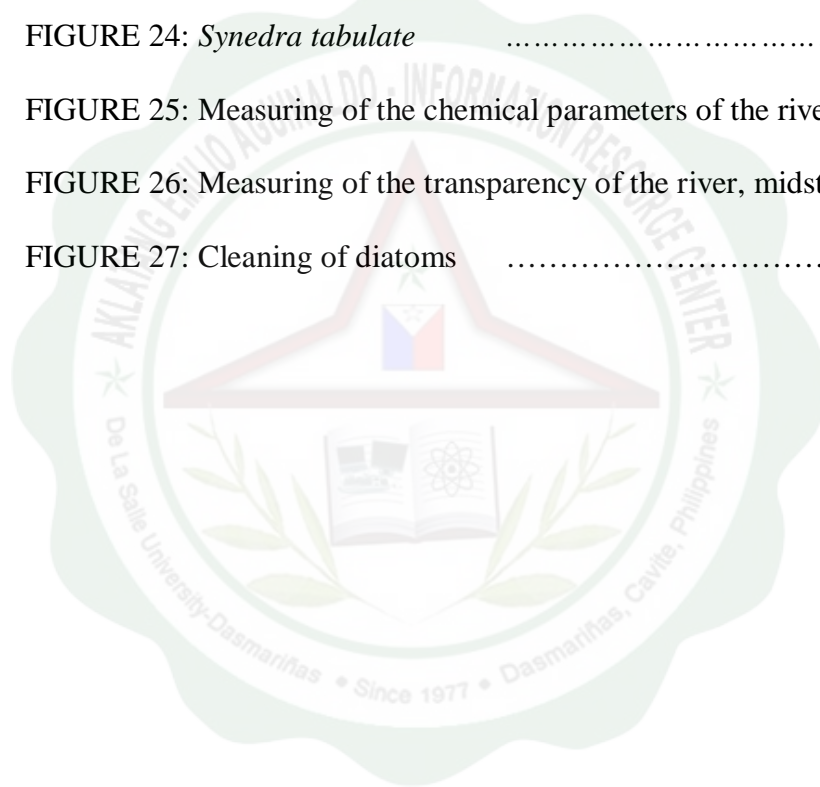
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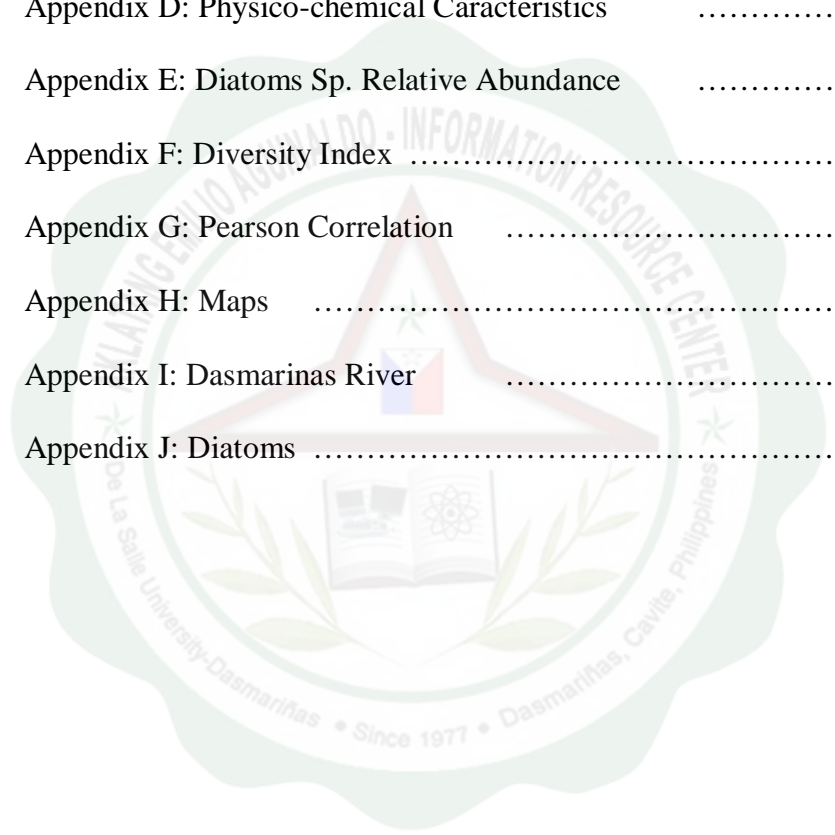
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ABSTRACT

The study entitled: Diversity of Diatoms in Relation to the Physico-chemical Characteristics of Dasmarinas River talks about the diatom species that can be found in Dasmarinas River in relation to its physico-chemical characteristics namely: pH, salinity, transparency, DO, temperature, TDS and BOD. Dasmarinas River is classified according to the water standard set by the DENR under Administrative Order No. 34 Series of 1990 and it is categorized under Class D which means that the river is suitable for use in irrigation, livestock watering and agriculture. Collections of samples were done twice, one during the dry season and the other during the rainy season from the duration of May to August. The species collection was done using plankton net with a mesh size of 2 μ m and was subjected to centrifugation using a rocket type centrifuge to isolate and identify the diatom species. Testing for its physico-chemical characteristics on the other hand was done on field except for the BOD. It was found out that more diatom species emerged during the rainy season because of factors like the fulvic acid content of the river and the richness of the environment after the rain. There are nineteen species of diatoms identified and were computed for its Simpson and Shannon indices, both used in identifying the diversity of diatoms. Their diversity was also correlated to the physico-chemical characteristics of the river using the Pearson r correlation and showed that the higher the diversity index of the species, the more diverse the organisms are. However, there are no rare species found in the river thus, the site might be ideal for industrial building purposes.