DIVERSITY ASSESSMENT OF SEAWEEDS IN MANGROVE AND SEAGRASS ECOSYSTEMS IN SELECTED COASTAL MUNICIPALITIES OF ZAMBALES, PHILIPPINES

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ACCEPTANCE SHEET

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BIOGRAPHICAL SKETCH

The author of this undergraduate thesis proposal is Kathleen Mae C. Bautista, livesw in Barangay Salvacion, Rosales, Pangasinan. She was born on May 25, 1999 at Rosales, Pangasinan. She was an honor student during her elementary years. She finished her elementary education at Rosales North Central School and finished her secondary level at Rosales National High School. She also belonged to the first section. She is now in her tertiary level at the Central Luzon State University taking up Bachelor of Science in Environmental Science major in Environmental Biology. She is a scholar of Tulong Dunong. She is currently a founding member of the Central Luzon State University Association of Future Environmental Scientists (CAFES).

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ABSTRACT

BAUTISTA, KATHLEEN MAE C., Department of Environmental Science, College of Arts and Sciences, Central Luzon State University, Science City of Munoz, Nueva Ecija, Philippines, **JUNE 2019, DIVERSITY ASSESSMENT OF SEAWEEDS IN MANGROVE AND SEAGRASS ECOSYSTEM IN SELECTED COASTAL MUNICIPALITIES OF ZAMBALES, PHILIPPINES.**

Adviser: ANNIE MELINDA P. ALBERTO, Ph.D.

This study aimed to determine the different kinds of seaweeds present in seagrass and mangrove ecosystems, the distribution pattern of the seaweeds, the economic and ecological value and the threats and problems that could affect the seaweeds. The collection of seaweeds in seagrass and mangrove ecosystems made use of random sampling method and quadrat method in selected coastal resources in the municipalities of Palauig, Masinloc, Sta. Cruz and Candelaria of Zambales, Philippines. Seaweeds from the area were collected, described, identified, classified and preserved. The vegetation of the area was determined using different ecological parameters. Results of the study revealed that there were 8 species of seaweeds existed in the seagrass and mangrove ecosystem, namely *Sargassum ilicifolium, Sargassum fulvellum, Turbinaria ornata, Halimeda macroloba, Padina australis, Neomeris annulata, Sargassum polycystum and Sargassum muticum*. From the eight (8) seaweeds species that were collected, *Sargassum fulvellum* had the highest importance value index from the four selected coastal municipalities in Zambales. The species diversity of the seaweeds is very low in the selected mangrove and seagrass ecosystems in the four coastal municipalities in Zambales that had been assessed and monitored. The seaweeds are sources of food and

medicines, used as fertilizers, cosmetics and for the extraction of industrial gums and chemicals. Based on the survey done, the seagrass and mangrove ecosystems had been greatly affected by human activities and natural calamities.

Keywords: seaweeds; diversity; assessment; economic and ecological value

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