# DIVERSITY AND ZOOCHEMICAL PROPERTIES OF SEA CUCUMBER (CLASS HOLOTHURIA) SPECIES IN THE SHALLOW WATER OF BRGY. CULAT, CASIGURAN, AURORA, PHILIPPINES

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# ABSTRACT

**LINSANGAN, CRYSTAL KAYE M.,** Department of Biological Sciences, College of Arts and Sciences, Central Luzon State University, Science City of Munoz, Nueva Ecija, Philippines, **JUNE 2019, DIVERSITY AND ZOOCHEMICAL PROPERTIES OF SEA CUCUMBER (CLASS HOLOTHURIA) SPECIES IN THE SHALLOW WATER OF BRGY. CULAT, CASIGURAN, AURORA, PHILIPPINES**

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This study was conducted to assess the diversity and zoochemical properties of sea cucumbers collected in the area. Modified quadrat method guided by transect lines was used to survey the area. Population indices of the sea cucumbers species and environmental condition in the area such as temperature, salinity and pH were determined. Methanol was used as extraction solvent and Thin Layer Chromatography method (TLC) was used in evaluation of zoochemical properties.

Four species were collected and identified as *Holothuria leucospilota, Actinopyga echinites, Stichopus horrens and Synapta maculata* with a total of 68 individuals. *H. leucospilota* was the most occurring species with a total of 48 individuals, followed by *S. horrens* and *A. echinites* with 11 and 7 total number of individuals respectively. However, *S. maculata* had the least number of individuals with only 2. *H. leucospilota* had the highest frequency with 66.67%, while *S. maculata* had the lowest frequency of 3.03%. Also, *H. leucospilota* was the most dominant in the area with a computed value of 71.00%.

The computed diversity index (H') of the area was 0.88 which is considered very low. Zoochemical screening showed that the methanol extract of the samples have different metabolites such as tannins, alkaloids, flavonoids and terpenoids.

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