

**CHEMICAL COMPONENTS AND BIOLOGICAL ACTIVITIES OF SEA
CUCUMBER (*Stichopus horrens*) COLLECTED FROM
DIGUISIT, BALER, AURORA**

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ABSTRACT

INIEGO, MARY ANNE R., Department of Biological Sciences, College of Arts and Sciences, Central Luzon State University, Science City of Muñoz, Nueva Ecija Philippines, **JUNE 2019, CHEMICAL COMPONENTS AND BIOLOGICAL ACTIVITIES OF SEA CUCUMBER (*Stichopus horrens*) IN DIGUISIT, BALER, AURORA.**

Adviser: MA. ELIZABETH D.C. LEOVERAS, Ph.D.

This paper highlighted the chemical components and biological activities (antioxidant, teratogenicity and anti-inflammatory) of *S. horrens* extracts. The compounds present are phenols, sterols, essential oil, triterpenes, coumarins, anthrones, tannins, phenolics and flavonoids. The extracts contain 16.92% GAE/g sample and showed 41.41% radical scavenging activity. Further, the teratogenic activity of *S. horrens* was evaluated using hot water and aqueous crude extracts. *S. horrens* hot water extracts exhibited lethal and teratogenic activity on *D. rerio* embryo at concentration level of 10,000ppm. The highest mortality rate was recorded at 12 hours of exposure. Meanwhile, *S. horrens* aqueous crude efficacy showed no effect. On the other hand, the anti-inflammatory activity of *S. horrens* was determined using in vitro CAM (chorioallantoic membrane) assay. Highest percentage of inhibition was recorded at 1000 ug/ml with 79.38% and no inhibition was observed in the other treatments.

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