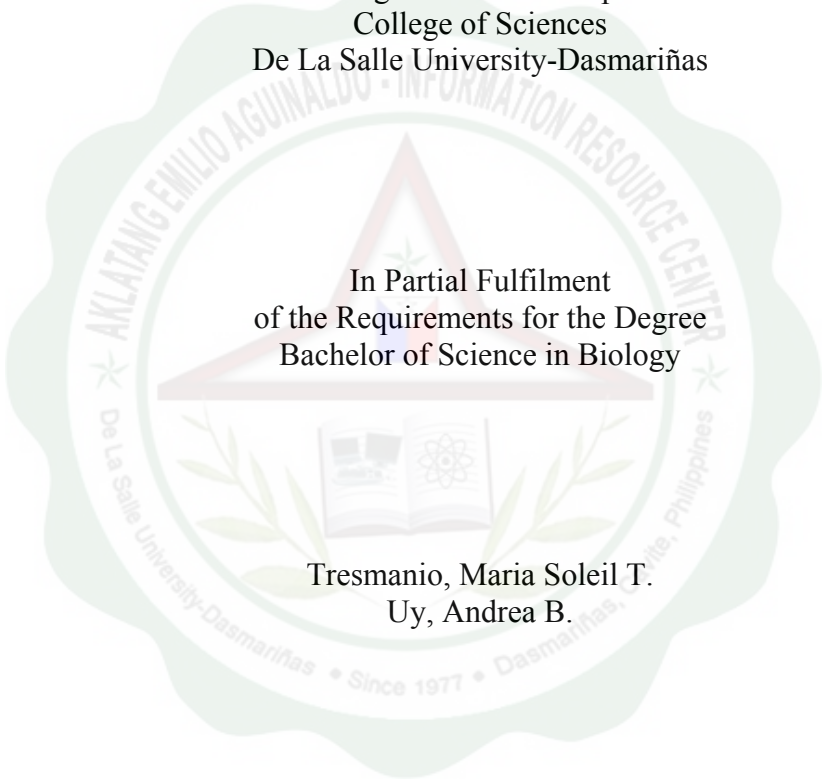


PRELIMINARY SCREENING OF THE EFFECTS OF *Impatiens caviteana* (ARAW-
ARAW) FLOWER AND LEAF EXTRACTS ON *Artemia salina* (BRINE SHRIMP)

An Undergraduate Research
Presented to
The Biological Sciences Department
College of Sciences
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 red triangle with a white cross inside. Below the triangle is an open book with a flower on its cover, flanked by green laurel branches. The text "AKLATANG EMILIO AGUINALDO - INFORMATION RESOURCE CENTER" is written in a circle around the top, and "De La Salle University-Dasmariñas • Since 1977 • Dasmariñas, Cavite, Philippines" is written around the bottom.

In Partial Fulfilment
of the Requirements for the Degree
Bachelor of Science in Biology

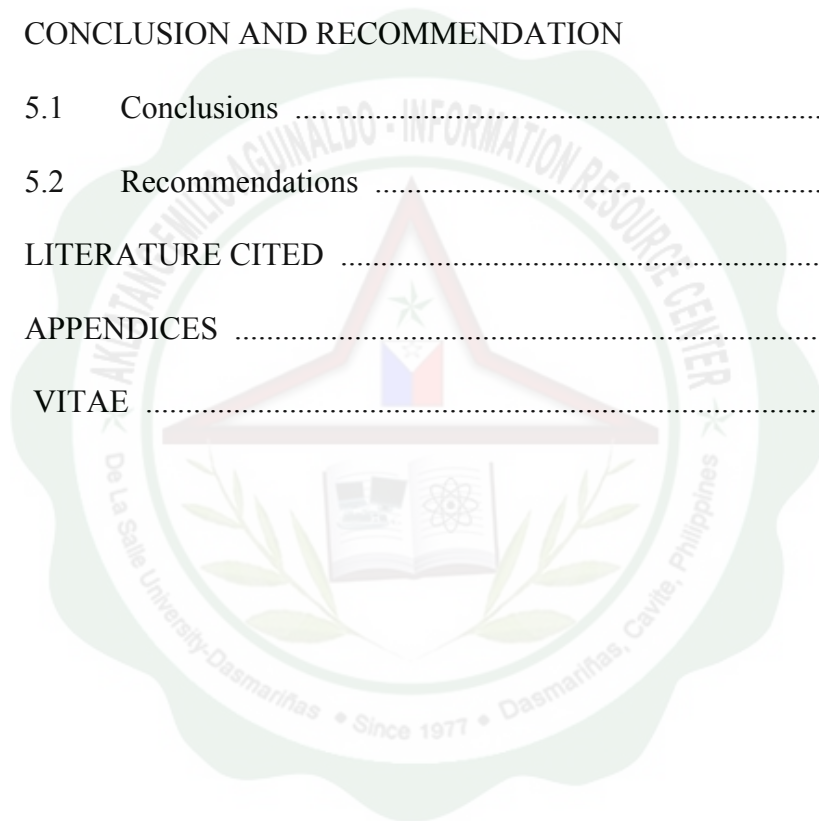
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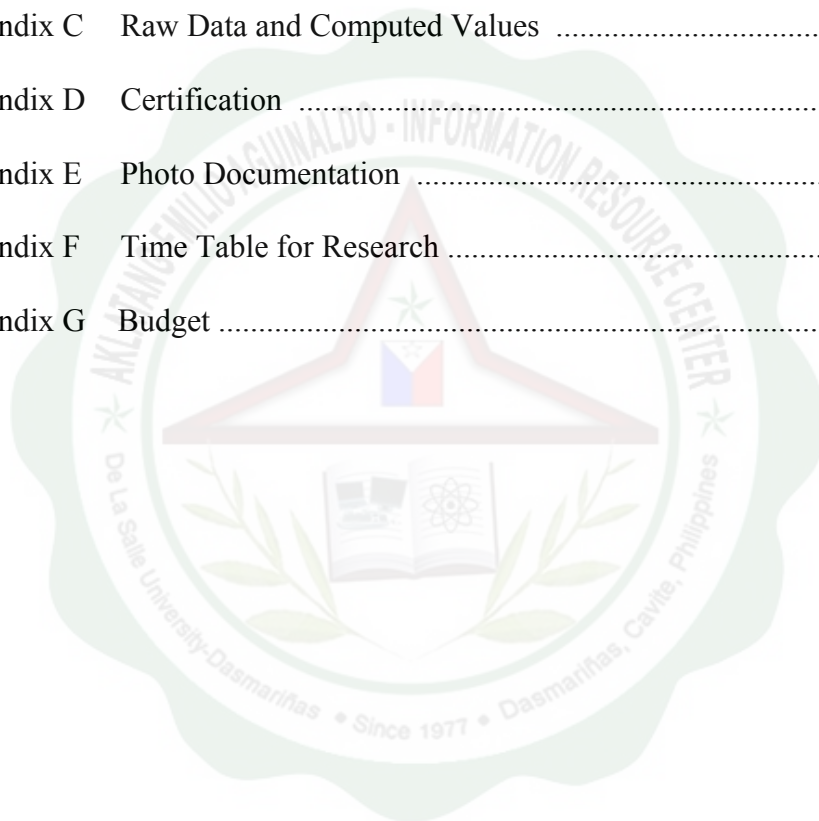
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ABSTRACT

This study presented substantial observation and analysis regarding *Artemia salina*, Brine Shrimp, mortality when *Impatiens caviteana* leaf and flower extracts were applied in an invertebrate bioassay. It aimed to know the percentage mortality of *Artemia salina*, Brine Shrimp, exposed to different concentrations of *Impatiens caviteana* flower and leaf extracts, the probable causes of the mortality of *Artemia salina*, Brine Shrimp, and the effects of different concentrations of *Impatiens caviteana* flower and leaf extracts on the gross morphology of *Artemia salina* Brine Shrimp. Oxygen deprivation as a physical factor and the phytochemical contents as a chemical factor were regarded as the prime causative agent of Brine Shrimp mortality and changes in the gross morphology. The mortality was analyzed through percentage and computation of the mean number of mortality. Despite the absence of the physical and observable effects on the Brine Shrimps, the properties of the phytochemicals-Phenolics, Flavonoid and Alkaloid in altering the Brine Shrimp system could not be disregarded. Physical factors, most importantly the oxygen deprivation during the 24 hour bioassay, was considered since it was an observed factor for Brine Shrimp hatching but absent in the bioassay. Observable effect was the color change of some of the Brine Shrimps to orange for oxygen deprivation and some to yellow due possibly to Tannin. The loss or absence of appendage was mainly attributed to the carnivorous nature of the Brine Shrimp.

