



PHYTOCHEMICAL SCREENING AND TERATOGENIC EFFECT OF *Durio zibethinus* ON ZEBRAFISH (*Danio rerio*) EMBRYOS

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An Undergraduate Thesis Presented to the Faculty of the Department of  
Biological Sciences, College of Arts and Sciences Central  
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the Requirements for the Degree of

**BACHELOR OF SCIENCE IN BIOLOGY**

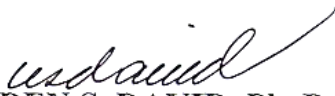
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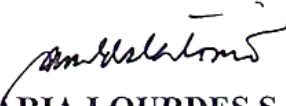
  
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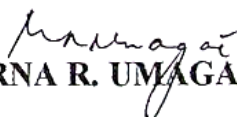
  
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## ABSTRACT

**ESTANISLAO, JANINE E.** Bachelor of Science in Biology, Department of Biological Sciences, College of Arts and Sciences, Central Luzon State University, Science City of Munoz, Nueva Ecija, Philippines, July 2016. **PHYTOCHEMICAL SCREENING AND TERATOGENIC EFFECT OF *Durio zibethinus* EXTRACT ON ZEBRAFISH EMBRYOS (*Danio rerio*) EMBRYOS.**

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In this study, teratogenic effect of *Durio zibethinus* plant parts (leaves, stem-bark and fruit rind) were evaluated using zebrafish embryos and phytochemicals screened on the aqueous extract of durian plant parts was done.

Higher concentrations such as 2% and 3% in the stem-bark showed coagulation of embryos, as well as in leaves and fruit rind after 24 hours of exposure which is a manifestation of the lethality of the extract. The heartbeat of the embryos in the lower concentrations was significantly lower to the heartbeat of the embryos in the control.

Phytochemical screening was carried out qualitatively following the protocol described by Sofowora (1993). The study revealed that saponins were found present in the fruit rind and stem bark of the *D. zibethinus*, while cardiac glycosides were found present in the stem-bark.

*D. zibethinus* stem-bark was the most toxic plant part followed by the leaf then fruit rind. *D. zibethinus* exhibits teratogenic property and growth retardation was the most notable teratogenic effect of the plant.



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