CENTRAL LUZON STATE UNIVERSITY

EVALUATION OF MOLLUSCICIDAL PROPERTIES OF *Calotropisgigantea* L. PLANT EXTRACT AGAINST GOLDEN APPLE SNAIL (*Pomaceacanaliculata* L.)

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An Undergraduate Thesis Submitted to the Faculty of the Department of Biological Sciences, College of Arts and Sciences, Central Luzon State University, Science City of Muñoz, Nueva Ecija, Philippines, In Partial Fulfilment of the Requirements for the Degree

BACHELOR OF SCIENCE IN BIOLOGY

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Department of Biological Sciences

APPROVAL SHEET

The Undergraduate Thesis entitled: **EVALUATION OF MOLLUSCICIDAL PROPERTIES OF *Calotropis gigantea* L. PLANT EXTRACT AGAINST GOLDEN APPLE SNAIL (*Pomacea canaliculata* L.)** prepared and submitted by **GIA VANESSA TADATADA BALANZA** in partial fulfilment of the requirements for the degree of **BACHELOR OF SCIENCE IN BIOLOGY** is hereby approved and accepted.

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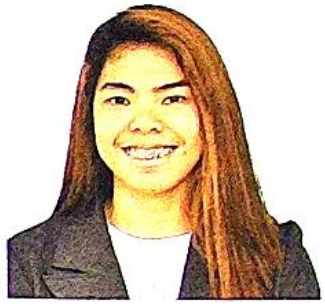

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GIA VANESSA T. BALANZA

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BALANZA, GIA VANESSA T.
BS Biology 2017

ABSTRACT

BALANZA, GIA VANESSA T., 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, June 2017, **EVALUATION OF MOLLUSCICIDAL PROPERTIES OF*Calotropisgiganteа*L. PLANT EXTRACT AGAINSTGOLDEN APPLE SNAIL (*Pomaceacanaliculata*L.)**

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This study was conducted to determine the moluscicidal property of *C. giganteа*using ethanol extraction compared to a chemical molluscicide against golden apple snail (*Pomaceacanaliculata* L.). Ten young golden apple snail and ten adult golden apple snail were used to test the molluscicidal effect of*C. gigantea* extract. Different symptoms resulting to the death of snails was also observed. Statistical result showed that *C.giganteа*extract and chemical molluscicide has no significant difference to each other in both young and adult golden apple snail Thus, this indicate that *C. giganteа*extract has the same killing effect with the chemical molluscicide to eradicate golden apple.

The result also showed that the eradication of golden apple snail in *C. giganteа*ethanolextract was influenced by the time of exposure,the longer the exposure period, the higher the mortality rate of young and adult golden apple snails. Behavioral and morphological symptoms of both young and adult golden apple snail were also affected by *C. gigantea* extract. Paralysation, mucus secretion open operculum,

withdrawal of body inside the sell and the change in shell color was observed after treatment application. In addition, most golden apple snailwithdrew into their shells after treatment that indicates nerve poisoning. Thus, the overall result revealed that *C. giganteahas* the potent molluscicidal capabilitywhich can be use as an alternative botanical molluscicide that are much affordable, environmental friendly and less harmful to human.

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