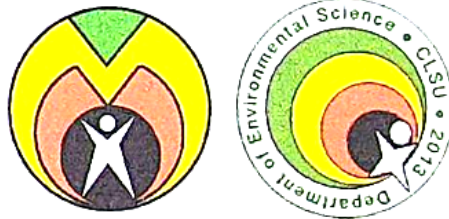


**CHINESE SPINACH (*Amaranthus viridis* Linn.) AS BIOPESTICIDES  
AGAINST GOLDEN APPLE SNAIL  
(*Pomacea canaliculata* Lamareck)**

**REGINE M. CATABONA**



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

**BACHELOR OF SCIENCE IN ENVIRONMENTAL SCIENCE**


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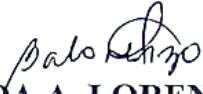
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## APPROVAL AND ACCEPTANCE


The undergraduate thesis entitled **CHINESE SPINACH (*Amaranthus viridis* Linn.) AS BIOPESTICIDES AGAINST GOLDEN APPLE SNAIL (*Pomacea canaliculata* Lamarek)** prepared and submitted by **REGINE M. CATABONA** in partial fulfillment of the requirements for the degree of **BACHELOR OF SCIENCE IN ENVIRONMENTAL SCIENCE** is hereby

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**CHINESE SPINACH (*Amaranthus viridis* Linn.) AS BIOPESTICIDES  
AGAINST GOLDEN APPLE SNAIL  
(*Pomacea canaliculata* Lamarck)<sup>1</sup>**

**REGINE M. CATABONA**

**ABSTRACT**

**Background:** Golden apple snail (*P. canaliculata*) is an invasive pest which destroyed the wide range of agricultural crops, especially rice. It has been found to be a major pest resulting to losses in rice production. To control this pest easily farmers used synthetic molluscicides which can lead to several problems such as environmental contamination and health hazards. In view of this, some plants have been investigated for their intrinsic molluscicidal properties in an attempt to find an alternative pesticides which is not only safe and environmental friendly but also readily available and affordable. This study aims to determine the molluscicidal activity of chinese spinach (*A. viridis*) leaf extracts against the hatchability of *P. canaliculata* eggs. **Methods:** Plant samples were prepared and extracted using expression extraction method. Different concentrations of molluscicides using the extracts of *A. viridis* were prepared. Four experimental treatments (i.e. 25%, 50%, 75%, and 100% *A. viridis*), one negative control (distilled water), and one positive control (molluscicide) were used in the study. **Results:** Results showed that the leaf extracts of *A. viridis* altered the normal development *P. canaliculata* eggs. **Conclusions:** Plant extracts of *Amaranthus viridis* caused alterations on the development of *P. canaliculata* by greater anti-hatching ability of its eggs. The results obtained demonstrated that *A. viridis* is a potential alternative pesticides which is not only safe and environment friendly but also readily available and affordable that will surely benefit farmers.

**Keywords:** *Pomacea canaliculata* Lamarck, *Amaranthus viridis* Linn., anti-hatching, molluscicidal effect

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