IDENTIFICATION AND PHARMACOLOGICAL PROPERTIES OF COASTAL PLANTS FROM BARANGAY DIGUISIT, BALER, AURORA

ZEDRICK ALMOJERA VENTURA

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
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ACCEPTANCE SHEET

This undergraduate thesis (revised) entitled "**IDENTIFICATION AND PHARMACOLOGICAL PROPERTIES OF COASTAL PLANTS FROM BARANGAY DIGUISIT, BALER, AURORA**" prepared and submitted by **ZEDRICK A. VENTURA**, in partial fulfillment of the requirements for the degree of **BACHELOR OF SCIENCE IN BIOLOGY (BIOTECHNOLOGY)**, is hereby accepted.

EVARISTO A. ABELLA, Ph.D.
Adviser

Date Signed

DIANA C. CASTILLO, M.Sc.
Critic

Date Signed

RICH MILTON R. DULAY, M.Sc.
Department Research Coordinator

Date Signed

Accepted as partial fulfillment of the requirements for the degree of **BACHELOR OF SCIENCE IN BIOLOGY (BIOTECHNOLOGY)**

ANGELES M. DE LEON, Ph.D.
Chair, Department of Biological Sciences

Date Signed

RICH MILTON R. DULAY, M.Sc.
College Research Coordinator

Date Signed

EVARISTO A. ABELLA, Ph.D.
Dean, College of Arts and Sciences

Date Signed

BIOGRAPHICAL SKETCH

Zedrick Almojera Ventura was born on December 15, 1997 at Laoag City, Ilocos Norte. He is the only son of Mr. Roland T. Ventura and Mrs. Delita A. Ventura. He is the second of his siblings; Claudette and Nerissa.

He is currently living in Nancalabasaan, Umingan, Pangasinan While studying in Central Luzon State University, he lived his 1st year in Male's Dorm 10-11 and his remaining 3 years in Bagong Sikat, Science City of Muñoz, Nueva Ecija.

In 2004, he earned his first diploma at Caliguian DepEd Day Care Center, and that same school year, he enrolled at Burgos Central School in Caliguian, Burgos, Isabela. He completed his elementary education as class valedictorian of his batch 2010. He continued his secondary education at Caliguian National High School in Burgos, Isabela topping his class from 2010-2013. In his senior year, 2013-2014, he transferred school to Umingan National High School in Poblacion West, Umingan, Pangasinan where he luckily graduated as 1st Honorable. He took up Bachelor of Science in Biology major in Biotechnology from 2014-2018 at the Department of Biological Sciences, College of Arts and Sciences, Central Luzon State University in Science City of Muñoz, Nueva Ecija.

He was a scholar of the Department of Science and Technology under the program of DOST-JLSS 2016-2018. He was also an academic scholar; College Scholar for 2 semesters and Dean's Lister for another 2 semesters.

His biggest achievement on his field was when he won and participated in the 6th ICIST 2017 together with his co-researchers. He completed his on the job training in the Rice Chemistry and Food Science Division, PhilRice, Science City of Muñoz.

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ABSTRACT

VENTURA, ZEDRICK ALMOJERA., Department of Biological Sciences, College of Arts and Sciences, Central Luzon State University, Science City of Munoz, Nueva Ecija, Philippines, **JUNE 2018, IDENTIFICATION AND PHARMACOLOGICAL PROPERTIES OF COASTAL PLANTS FROM BARANGAY DIGUISIT, BALER, AURORA**

Adviser: EVARISTO A. ABELLA, Ph.D.

This study was conducted to screen the pharmacological properties of the different coastal plants located along coastal areas of Diguisit, Baler, Aurora. Six coastal plants were collected and were identified as *Dracaena fragrans*, *Pueraria montana* var. *lobata*, *Sphagneticola trilobata*, Urticaceae, *Nephrolepis cordifolia*, and Pandanaceae.

Ethanol extracts of plants were evaluated for antibacterial properties against *S. aureus* and *E. coli* using disc diffusion method. Positive results were revealed in *S. aureus* both in 24 and 48 hours as zones of inhibitions were manifested. *S. trilobata* and *P. montana* var. *lobata* has the largest zone of inhibition. On the other hand, only the *P. montana* var. *lobata*, *S. trilobata*, and Urticaceae showed positive result against *E.coli* at 24 hours. At the 48th hour of incubation, a decrease in zones of inhibition was observed.

Antioxidant activity assay was evaluated in 2,2-diphenyl-1-picrylhydrazyl (DPPH), trolox equivalent. All of the coastal plants collected showed antioxidant activity; Pandanaceae and *S. trilobata* were recorded with the highest antioxidant activity.

The results in test for antibacterial properties and antioxidant activities suggested that the coastal plants collected had the potential for pharmacological properties.

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