

CONTRACT AGREEMENT

This **STUDENT RESEARCH GRANT AGREEMENT** is made into by and between:

Philippine Association of Crab Processors, Inc., with principal address at G/F Benedicto College, A.S. Fortuna St., Mandaue City, Cebu, represented herein by its Chairman, Robert G. Eduardo, hereinafter referred to as "PACPI";

and

GRECEL FATIMA C. VENTURA of legal age, Filipino, with residence address at Brgy. Montible, Puerto Prinesa City, Palawan hereinafter called the "GRANTEE".

WHEREAS, PACPI is a non-profit organization that seeks to develop the common good and well-being of the blue swimming crab industry through collaborative work with government and non-government institutions,

WHEREAS, PACPI seeks to encourage student participation in Fisheries Improvement Projects for Philippine Blue Swimming Crab, *Portunus pelagicus*, through science research;

WHEREAS, the GRANTEE, equipped with proper training, skills, and education to undertake the project, accepts the Student Research Grant of PACPI with all its terms and conditions specified in this Agreement.

NOW, THEREFORE, for and in consideration of the foregoing premises and the mutual covenants hereinafter set forth, the parties agree on the following:

A. RESPONSIBILITIES OF PACPI

1. Provide financial support to the Grantee for one (1) year
2. Issue 40% of the grant to the Grantee within thirty (30) days upon signing of this Agreement, another 30% upon submission of progress report of any format to PACPI within 4 to 6 months and the remaining 30% upon submission of 1st thesis draft (for confirmation of adviser)
3. Recommend research areas aligned with the thrusts of PACPI
4. Issue one-time adviser's fee upon completion of the Grantee's thesis
5. Participate in partnership activities such as meetings, workshops and communication of findings
6. Consult with partners on the appropriate use, sharing, and publishing of data
7. Have the right to hold or terminate the grant for failure to comply with requirements or conduct activities expected from him/her
8. Hold no liability to the Grantee's acts or omissions resulting in damage, loss or injury to third persons, properties, WPU or to the Grantee himself/herself.

B. RESPONSIBILITIES OF THE GRANTEE

1. Enrol in MS Fisheries Management at the Western Philippines University (WPU) for the commencement of thesis study
2. Implement his/her thesis based on the approved topic
3. Maintain good academic performance set by WPU
4. Receive the following financial support:
 - i. Thesis support grant - Php 25,000 for B.S. and Php 50,000 for M.S.
 - ii. Local conference support - Php 5,000 for B.S. and Php 8,000 for M.S.
 - iii. Publication fee subsidy - Php 3,000 for B.S. and Php 5,000 for M.S (given as incentive if publication is free)
5. Submit the following requirements:
 - i. Proof of enrolment to the University
 - ii. Thesis proposal approved by the adviser
 - iii. Progress report within six (6) months of study
 - iv. One (1) hard-bound copy of final and approved thesis within one (1) month upon completion or not later than eighteen (18) months upon signing of this Agreement
6. Acknowledge PACPI in thesis papers, conference posters and related materials
7. Abide by school policies while under the jurisdiction of University
8. Pay the appropriate penalties if his/her grant has been terminated due to any grounds listed in Article D.
9. Advise PACPI for any extension in the study period. However, no additional monetary assistance will be given. Extension of more than six (6) months will forfeit local conference support and publication fee subsidy.


C. TERMINATION OF GRANT

1. Grounds for Termination of Grant
 - i. Breach of contract
 - ii. Wilful abandonment of the grant
 - iii. Gross misconduct
 - iv. Non-completion of study
2. Termination of the grant obligates the student to refund in full the financial support given to him/her with 10% one-time penalty.


This AGREEMENT shall be effective for one (1) year commencing upon signing, unless earlier revoked or extended and renewed by the parties.

This AGREEMENT is made under and shall be construed according to the laws of the Republic of the Philippines.

IN WITNESS WHEREOF, the parties hereto have signed this Agreement on this ____ day of _____ 2017 in _____.


ROBERT G. EDUARDO
Chairman
PACPI


GRECEL FATIMA C. VENTURA
Grantee
Western Philippines University


HERMINIE P. PALLA, MSc
Adviser
Western Philippines University

ACKNOWLEDGMENT

REPUBLIC OF THE PHILIPPINES)
MAKATI CITY CITY) S.S.

BEFORE ME, a Notary Public, for and in MAKATI CITY, personally appeared:

<u>Name</u>	<u>Comm. Tax Cert. No.</u>	<u>Date/Place of Issue</u>
1. ROBERT G. EDUARDO	Passport No. E0464205	March 4, 2014 DFA Manila

All known to me to be the same persons who executed the foregoing Contract Agreement, written and signed by the parties on each and every page thereof and acknowledged the same to be their free and voluntary act and deed as well as the entities represented.

WITNESS MY HAND AND SEAL this _____ day of JAN 27 2017 in the
aforementioned place.

Doc. No. 114 ;
Page No. 24 ;
Book No. I ;
Series of 2017



NOTARY PUBLIC

ERIKA PAOLA M. MIGRINO

Notary Public from Makati City

Appointment No. M-509 (2016-2017)

8th Floor, 139 Corporate Center, Valero Street

Salcedo Village/Makati City 1277

Roll of Attorneys No. 65997

Admitted to the BAR 2016

Lifetime IEF No. 1041090 06/24/2016; RSM

PTR No. 5703598 06/28/2016; Makati City

POPULATION PARAMETERS AND REPRODUCTIVE BIOLOGY ASPECTS OF BLUE SWIMMING CRAB *Portunus pelagicus* (LINNAEUS, 1758) IN MALANUT BAY, QUEZON, PALAWAN

INTRODUCTION

Most studies have focused mainly on fishing and catch of the fishermen with little attention given to such crab gathering. Blue swimming crab population and growth parameters study conducted in India (Josileen and Menon, 2012) reported that majority of the crabs are fished out by intensive trawling in the early part of their life, leaving only a few to reach their maximum age and the maximum size has reduced.

In Palawan, gathering of blue crabs is one of the main livelihoods of the fishermen and Malanut Bay, Quezon is one of the sources of blue swimming crabs. Two types of fishing gears they usually use are the crab gill net and crab pot and these gears do not have any sort of control in their harvest. Even the undersized and ovigerous are being caught. Although the population of the blue swimming crabs in the area does not decrease alarmingly, the sizes of their harvests are becoming smaller.

Information about growth is important for estimating the population size of a stock, specifically for the purpose of its exploitation, also sexual maturity and spawning periods are among important parameters for fishery management. It is necessary to conduct assessment on the crab stock to gain additional knowledge to be able to attain the goal of enhancing the local crab population. One of the important concerns of the fishery resources management is the uncontrolled collection which affects not only the target species but may have unpredictable consequences for the rest of the community and may even result to species depletion. The results of this research could be shared to the local fishermen and

other stakeholders who are involved in the production, to educate them in the more appropriate management of the crab population. At present, there is no active crab fishery management strategy or policy plan in Malanut Bay.

Objectives of the Study

The general objective of the study is to assess the current status of *P. pelagicus* population and reproductive biology in Malanut Bay with following specific objectives:

1. To determine the growth parameters (L_{inf} , K), growth performance index, mortality rates (Z , M , F) and exploitation rate (E).
2. To determine the size at sexual maturity, spawning season fecundity and sex ratio.

METHODOLOGY

Locale of the Study

This study will be conducted at Malanut Bay, Quezon, Palawan. As shown in figure 1 below, Malanut bay is strategically located in the surrounding waters of the famous Tabon cave, accessible thru the fish port which is located in Barangay Alfonso XIII, Quezon, Palawan. Bearing the coordinates of $9^{\circ} 15' 33''$ North and $117^{\circ} 59' 53''$ East, covering the area of approximately 24 km^2 . Surrounded by two Barangays, the Alfonso XIII and Tabon.



Figure 1. Map showing the location of Malanut Bay, Quezon, Palawan.

Sampling Procedure

The sampling of blue swimming crab will be conducted during new moon for 15 months, from January 2017 to April 2018.

All *Portunus pelagicus* caught from Malanut Bay that will be landed to the fishport will be counted and recorded. All berried samples will be examined, classified and recorded based on the physical egg appearance using pictures of egg colouration (DA-BFAR The Philippine blue swimming crab management plan) per stage as shown in plate 1. Appearance of male and female molting crabs will be also recorded.

Random samples of at least 30 healthy hard-shelled with all appendages individuals of *P. pelagicus* will be taken monthly for the measurement of external carapace width, which is defined as the distance between tips of the 9th antero-spine carapace of the crab, to the nearest 1 cm using vernier caliper shown in diagram 1, and will be weighed also to the nearest gram using digital electronic balance.

Schedule of Activities

Appendix 1.

Activities	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	
	2016			2017												2018						
Proposal																						
Defense																						
Proposal																						
Editing																						
Preliminary																						
Survey																						
Thesis																						
Conduct																						
Data Analysing																						
Thesis Writing																						
Thesis																						
Defense																						
Thesis Editing																						
Convention																						
/Symposium																						

Budgetary Requirements

Appendix 2

Particulars	Unit Price	Total Amount (Php)
Travels expenses Van (back and Fort)	Php 700.00 X 15	Php 10,500.00
Meals	Php 150.00 X15	Php 2,250.00
Crab samples	Php 700 X15	Php 10,500.00
Printing Colored/Blank		Php 5,500.00
Lodging	Php 600 X15	Php 9,000.00
Misc.		Php 5,000.00
Total=		Php 42,750.00