

🔊 De La Salle University - Dasmariñas **BIOLOGY PROGRAM**

TAXONOMIC CLASSIFICATION AND ABUNDANCE OF NUDIBRANCHS (SEA SLUGS) IN CORRELATION TO THE MARINE WATER PHYSICO **CHEMICAL PROPERTIES OF ANILAO, BATANGAS**

An Undergraduate Research presented to the Faculty of the Biological Sciences Department College of Science and Computer Studies De La Salle University-Dasmariñas Dasmariñas City

In Partial Fulfilment of the Requirements

for the Degree of Bachelor of Science Major in Human Biology

IVY CARLA I. GARCIA

SHARMANE L. JARIN

March 2013





Nudibranchs are soft bodied marine gastropod and there are almost 3000 of them out of 800 identified, 600 of them are found in Anilao. The objectives of the study were to identify species found in the study site, determine the abundance of nudibranchs, and to correlate the abundance of nudibranchs to the marine water physico chemical properties of Anilao, Batangas. Belt transect method was used, each site has a measure of 20m by 2m. Physico chemical was measuring using pH meter, DO meter, Dive computer watch and salinity meter. In the study site six species were identified namely Chromodoris annae, Chromodoris elizabethina, Phyllidia varicosa, Phyllidia pustulosa, Chromodoris strigata, and Chromodoris dianae.

Chromodoris annae has the highest relative abundance, relative frequency, and relative value. In order to get the relative value of each species, relative abundance, relative frequency, and relative density were added. The physico chemical parameters were also tested to correlate with the abundance of nudibranchs. The physico- chemical tests in marine water that were done are temperature with a value ranging from 27- 28°C, pH with a value ranging from 7-8, DO with 8.19- 8.29 mg/l, salinity with a value of 31- 31.80 ppt. Temperature and pH has a negative correlation coefficient while the dissolved oxygen and salinity has a positive correlation coefficient. As a result in the study abundance of nudibranchs are greatly affected by dissolved oxygen and salinity because

De La Salle University - Dasmariñas 🚱

nudibranchs has gills and they needed it for their respiration and as for salinity in the study site soft corals are commonly seen, these are the most abundant food of nudibranchs and it is typically found in deep portion of the sea and can tolerate any higher or slightly lower than the common amount of salinity.

Physico-chemical tests are important because it measures the capability of the environment to sustain the marine organism's life and this research study can be helpful for future researchers of nudibranchs because it can serve as one of their basis in locating nudibranchs and the factors that affect the population of nudibranchs.



De La Salle University - Dasmariñas



Title Page	1
Acknowledgements	2
Table of Contents	3
CHAPTER 1 INTRODUCTION	
1.1 Background of the Study	7
1.2 Objectives of the Study	8
1.3 Scope and Limitations	9
1.4 Significance of Study	10
CHAPTER 2 REVIEW OF RELATED LITERATURE	
2.1 Conceptual Literature	13
2.2 Related Studies	23
CHAPTER 3 METHODOLOGY	
3.1 Research Design	28
3.2 Research Setting	29
3.3 Research Procedure	30
3.4 Data Gathering and Statistical Analysis	31
CHAPTER 4 RESULTS AND DISCUSSION	32
CHAPTER 5 CONCLUSION AND RECOMMENDATIONS	43

De La Salle University - Dasmariñas

Cited References

Appendices

- A. Map of the study site
- B. Standard Procedure
- C. Photodocumentation
- D. Curriculum Vitae

52