

**SURVEY OF MANGROVE SPECIES IN SELECTED
COASTAL AREAS OF CAVITE**

THESIS

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June 2018

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COASTAL AREAS OF CAVITE**

Undergraduate Thesis
Submitted to the Faculty of the
College of Arts and Sciences
Cavite State University
Indang, Cavite

In partial fulfillment
of the requirements for the degree
Bachelor of Science in Biology

APRILYN R. MACASA
June 2018

ABSTRACT

MACASA, APRILYN R. Survey of Mangrove Species in Selected Coastal Areas of Cavite, Undergraduate Thesis, Bachelor of Science in Biology Major in General Biology, Cavite State University, Indang, Cavite, May 2018. Adviser: Prof. Michele T. Bono.

The study was conducted to assess the mangrove species found in the selected coastal areas of Cavite. Specifically, it aimed to; 1) describe the physiographic features and the status of the selected coastal areas of Cavite; 2) determine the physico-chemical characteristics of the selected coastal areas of Cavite; 3) identify mangroves found in the selected coastal areas of Cavite and; 4) determine the diversity indices of mangroves observed in selected coastal areas of Cavite. The study was conducted in the selected coastal areas of Cavite namely; Bacoor City, Cavite City, Naic and Rosario.

Three 10x10 m quadrats were established in each sampling site where the number of mangrove species were counted and physico-chemical parameters of the water were measured. Physiographical features of each sampling sites were also described.

Findings of the study revealed that all of the mangrove forests were near the residential areas. This was because they used the mangrove area as their source of livelihood. The physico-chemical properties found in the selected study sites were still within the standard values of the required levels for it to accommodate marine organisms except for light intensity and dissolved oxygen.

Mangrove species composition in Bacoor had the highest Shannon-Weiner diversity index with a value of 1.04, however, this value still indicates low diversity in the area. The mangrove species with the highest relative frequency, relative dominance, relative density and importance value is *Rhizophora mucronata*.

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An undergraduate thesis submitted to the faculty of the Department of Biological Sciences, College of Arts and Sciences, Cavite State University, Indang, Cavite in partial fulfillment of the requirements for graduation with the degree Bachelor of Science in Biology major in General Biology with Contribution No.CMS 2013-0 Prepared under the supervision of Prof. Michele Bono.

INTRODUCTION

Mangrove forests are the tropical equivalent of salt marshes. They are found along some 70 percent of gently sloping sandy and salty coastlines in tropical and subtropical regions, especially Southeast Asia. The dominant organisms in these nutrient-rich coastal forests are mangroves—69 different tree species that can grow in salt water. They have extensive root systems that often extend above the water, where they can obtain oxygen and support the trees during periods of changing water levels (Miller and Spoolman, 2009).

Mangroves ecosystems are ecologically valuable for a variety of reasons. First, they are critical components of the coral reef ecosystem in that they provide complex habitat structure for numerous juvenile fish species. In fact, more than 75 percent of commercially caught fish may inhabit mangroves at some point of their life. In addition to providing essential habitat, mangrove ecosystems stabilize near shore sediments and help mitigate coastal erosion. Mangroves also interrupt freshwater discharge, are sinks