

TAXONOMY OF REEF-FORMING CORALS
IN EASTERN CEBU

A Thesis
Presented to
the Faculty of the Graduate School
University of San Carlos

In Partial Fulfillment
of the Requirements for the Degree
Master of Science in Biology

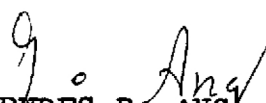
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TABLE OF CONTENTS

	Page
ACKNOWLEDGMENTS	iv
ABSTRACT	vi
LIST OF FIGURES	vii
LIST OF TABLES	vii
LIST OF PLATES	vii
I. INTRODUCTION	1
II. MATERIALS AND METHODS	6
Localities	7
III. RESULTS AND DISCUSSIONS	26
1. Ecology	26
2. Anatomy and Morphology	37
3. Systematics	49
REFERENCES CITED	216
PLATES	226

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ABSTRACT

This is a taxonomy of reef-forming corals in Eastern Cebu, using four different places to represent the coral formation of Cebu island namely, Tuyom, Carcar; Tuyan, Naga; Silut, Liloan; and Sabang, Danao City. Brief accounts of the ecology and the skeletal anatomy of the reef-building corals are given as background materials. A glossary of terms is supplied to guide beginners in the systematics of the group.

Among the Scleractinians, two classes, two sub-classes, four orders, five suborders, 14 families, 41 genera, three subgenera, 126 species and nine varieties are described herein. One species and two varieties are believed to be new to science. Included because of their close association on the reefs although they are not Scleractinians are the blue coral, Helipora, the organ pipe coral, Tubipora musica, and three species of fire corals, Millepora.

One species is reported for the first time in the Philippines.

LIST OF FIGURES

	Page
Fig. 1. Map of Cebu showing the four different places studied	9
Fig. 2a. A view of the tidal flat of Tuyom, Carcar taken at the edge of the cliff overlooking the reef	11
2b. A portion of the tidal flat showing dead coralline rocks presumably loosened by wave action	11
Fig. 3. A portion of the tidal flat of Tuyan, Naga from the northeast	15
Fig. 4. Sketch outline of Silut Bay, showing the various substrata, location of the islands and the trenches	18
Fig. 5. Aerial view of Silut Bay, Liloan	19
Fig. 6. A portion of the tidal flat of Sabang, Danao City from the northeast	24
Fig. 7A. Diagrammatic vertical section of the polyp and corallite	47
7B. Tangential section of a septum showing dark spots as centers of calcification	47
Fig. 8A. Magnified corallites	48
8B. Showing costae and peritheca	48

LIST OF TABLES

Table 1. List of corals collected from the areas studied	221
Table 2. Ecological conditions of the different areas studied	225

LIST OF PLATES

Plate 1-41.	226-307
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INTRODUCTION

Between the low tide line and the deep sea, there is a region where water is relatively shallow and where many kinds of animals and plants abound. In this region are found animals such as hydroids, sponges, snails, starfishes, fishes of all sizes and colors, and many other animals and plants. Prominent among them are coral polyps. In tropical and subtropical seas, coral polyps build extensive reefs which are of two general kinds namely, fringing reefs close to the shore and the barrier reefs far off from the shore.

The coral reef is rich in animal and plant life, exhibiting varied, complex and very interesting ecological relationships like mutualism between algae and coral polyps. The algae living in the bodies of the coral polyps are benefited by the release of carbon dioxide from the coral polyps and the coral polyps receive in return oxygen released by the algae. Adaptation is shown by crabs, fishes and worms of various species assuming the colors of the coral polyps on which they live. Predation is shown by the coral polyps themselves grabbing and conveying tiny animals into their mouths.

In many coral banks, fishing along the reef has developed into a growing and lucrative industry. Wherever corals are abundant, a large community of fishes is also present. These fishes, along with many other animals utilize the reefs as their homes and breeding places. Fishermen place fish traps near or on coral reefs. Divers with arrows or spear guns fish most of the time in the reef for octopuses, crustaceans, fishes and other animals.

Corals are used as building materials. The massive forms like Porites, Goniopora and other lighter forms are chopped and shaped into different forms and sizes. The walls of old houses and churches constructed during Spanish times are made of corals. At present coral blocks are used as decorative walls in some fashionable modern houses.

Corals are sources of lime. They are dried, burned and powdered. The lime serves as disinfectant, fertilizer and ingredient in poultry feeds.

Some corals specially the branching ones, because of their aesthetic appeal, are used as decorations in homes and gardens.

Corals now in the form of fossils which were deposited millions of years ago enable geologists to determine the approximate age of the rock strata.