

TAXONOMY AND VERTICAL DISTRIBUTION OF
EUTHECOSOMATOUS PTEROPODS IN THE
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PHILIPPINES

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APPROVAL SHEET

This thesis entitled, "TAXONOMY AND VERTICAL DISTRIBUTION OF EUTHECOSOMATOUS PTEROPODS IN THE HILUTANGAN CHANNEL, CEBU, PHILIPPINES," prepared and submitted by Mr. Noel B. Solis in partial fulfillment of the requirements for the degree of Master of Science in Biology has been examined and is recommended for acceptance and approval for ORAL EXAMINATION.

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ABSTRACT

Seven genera with 11 species (the species virgula was represented by four subspecies) of Euthecosomata were separated from 126 plankton samples taken by horizontal tows at 1 m, 20 m, 50 m, 70 m and 100 m levels in Hilutangan Channel, Cebu, Philippines on January and February, 1972. The species are listed in order of decreasing abundance: Creseis acicula (Rang 1836), 21.7%; Limacina trochiformis (d'Orbigny 1836), 21.2%; Creseis virgula constricta (Chen and Be' 1964), 15.5%; Limacina inflata (d'Orbigny 1836), 11.2%; Clio pyramidata (Linnaeus 1767), 10.6%; Creseis virgula conica (Eschscholtz 1829), 9.4%; Limacina bulimoides (Rang 1828), 7.8%; Creseis virgula virgula (Rang 1828), 1.1%; Diacria quadridentata (de Blainville 1821), 0.7%; Cavolinia longirostris (de Blainville 1821), 0.7%; Hyalocylix striata (Rang 1828), 0.1%; Creseis virgula clava (Rang 1828), 0.07%; Cuvierina columnella (Rang 1827), 0.01%; and Cavolinia uncinata (Rang 1829), 0.002%.

The shells of these species were described and the synonyms for each species were provided.

Hilutangan Channel euthecosomes show the unusual shallow vertical distribution compared with other areas. Found within the upper 20 m level were: Cr. v. conica, Cr. v. constricta, Cr. acicula, and Cr. v. virgula; while L. trochiformis was usually found at less than 50 m and L. bulimoides at less than 70 m.

Temperature, salinity and oxygen content did not seem to influence the distribution of euthecosomes within the 100 m layer of the channel.

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I. INTRODUCTION

The sea is a potential source of food for the rapid growing population. In the sea is a complex ecosystem composed of microscopic and macroscopic organisms the interaction of which are influenced by various physical and chemical factors. These organisms constitute the base of the animal food chain.

In order to know more of their neighboring seas, the University of San Carlos initiated a survey of the planktonic community, their abundance and distribution and the hydrography of Hilutangan Channel, Cebu, Philippines in 1972. One aspect of this survey is the taxonomy, vertical distribution and abundance of euthecosomatous pteropods.

Euthecosomatous pteropods are tiny, shell bearing marine holoplanktonic opisthobranch mollusks. Their sizes generally range from less than a millimeter to more than a centimeter. They possess a wing-like fins which are modified extension on the foot, thus they are called "pteropods." The shell-shape differs among the members of the group. For this reason, the shells are effectively used for taxonomic purposes.

There are about 35 species of euthecosomatous pteropods (McGowan, 1960). Being one of the most