

FLUCTUATIONS IN THE POPULATION DENSITY
OF A MEIOFAUNA COMMUNITY IN A TROPICAL SANDY BEACH

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

by
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March 1977

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This thesis entitled "FLUCTUATIONS IN THE POPULATION DENSITY OF A MEIOFAUNA COMMUNITY IN A TROPICAL SANDY BEACH" prepared and submitted by Marietta R. Natividad in partial fulfillment of the requirements for the degree of M. S. in Biology major in Zoology has been examined and is recommended for acceptance and approval for ORAL EXAMINATION.

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ACKNOWLEDGMENT

The author wishes to thank Ms. Helen Vicente and Paciencia Sia who assisted the author on statistical analysis, criticized the methodology, and acted as readers for the manuscript.

Special acknowledgment is likewise extended to Misses Elena Favoy and Jovita Nacario who patiently typed the manuscript; Fr. Enrique Schoenig for the challenge offered to the author and also for giving the author a free hand to use his equipments, and Mr. Vicente Rosaroso for assisting the author during monthly sampling.

But most of all, the author is greatly indebted to her adviser, Dr. Jesus V. Juario, for suggesting the topic, for his valuable technical guidance and encouragement, and for his generosity in lending his valuable references to the author.

Whatever merit this work may have, is shared by all who have given the author light and encouragement along the way.

ABSTRACT

Monthly fluctuations of a tropical meiofaunal community were studied from July 1975 to July 1976. The total number of meiofauna individuals ranged from 417 to 1142 10 cm^{-2} and dry weight biomass from 978 - 3009 $\mu\text{g } 10 \text{ cm}^{-2}$. Free-living nematodes were the most abundant of all the meiofauna groups constituting about 67% of the mean total meiofauna population. Copepods, polychaetes, turbellarians, decapod larvae and the other unidentified meiofauna comprise the remaining 33%. The meiofauna had its highest peak of abundance in March and its lowest in September. Nematodes constituting the most important group with respect to members showed the same pattern; however, the highest peak was observed in July 1975. Monthly fluctuations in the total meiofauna population density as well as the various meiofaunal groups, except the nematode population, are highly significant based on F and t tests conducted. Vertical distribution of the total meiofauna population and those of the four dominant meiofaunal groups vary with depth.

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