DISTRIBUTION OF MOSQUITO FAUNA IN ORMOC CITY AND ITS POSSIBLE RELATION TO HUMAN DISEASES

A Thesis

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Master of Science in Biology

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by

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APPROVAL SHEET

This thesis entitled "DISTRIBUTION OF MOSQUITO FAUNA IN ORMOC CITY AND ITS POSSIBLE RELATION TO HUMAN DISEASES," prepared and submitted by Maria Teresa A. Chua 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

Thirty-four species of mosquitoes belonging to nine genera and 13 subgenera had been identified in a survey conducted in Ormoc City and vicinity from July, 1976 to June, 1977. Ormoc City, in the western part of Leyte, has an area of approximately 51,000 ha. The city proper occupies approximately 140 ha. Eight stations were surveyed: three in the city proper, two sub-urban areas, and three nearby rural areas.

Patag, a rural area, yielded the highest number of different mosquito species 9250 due to the presence of a greater variety of breeding niches. The city proper however, yielded the greatest number of mosquito individuals, mainly of the Aedes group.

Aedes albopictus was the most abundant and prevalent species in all areas studied.

It was found out that the distribution of mosquitoes was affected by certain ecological factors such as rainfall, temperature, elevation and adaptability and availability of preferred breeding niches. The seasonal abundance of Aedes and Armigeres was related to rainfall. Rainfall was relatively high in the months of June to August, 1976 and in January, 1977 and so was the number of mosquitoes collected. The Culex group was found to be resistant to a high temperature with low relative humidity. At higher elevations, Aedes poicilius, Malaya genurostris, Armigeres, Tripteroides and Uranotaenia increase in number. Aedes breeds mostly in artificial containers while Culex and Anopheles prefer ditches, ground pools and canals. Coconut shells are preferred by Armigeres while tree holes by Tripteroides.

Nine of the identified mosquito species are considered potential vectors of human diseases. No serious outbreak of mosquito-borne disease has been reported in the areas studied since 1971. However, due to increase in population as a result of urbanization, an increase in mosquito vector is inevitable. Thus, precautionary measures are suggested to control the increase in mosquito population.

TABLE OF CONTENTS

Chapter Page

LIST OF TABLES

LIST OF FIGURES

Figure

Page