

D E D I C A T I O N

To my loving father who courageously shared all the trials that were encountered in the research with all his patience and understanding, this book is affectionately dedicated.

BIOLOGY OF PAPILIO POLYTES LEDEBOURIA ESCASCH.

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

Miss Henrietta Alensonorin

June, 1970

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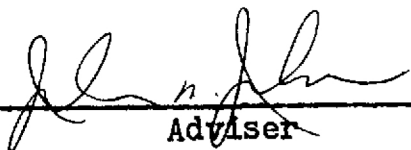
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IN PARTIAL FULFILLMENT of the requirements for the degree of Master of Science in Biology, this Thesis entitled "BIOLOGY OF PAPILIO POLYTES LEDEBOURIA ESCHSCH." has been prepared and submitted by Miss Henrietta Alenonorin who is hereby recommended for Oral Examination.


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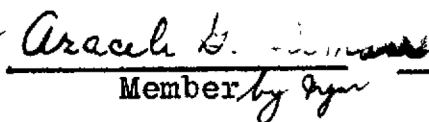
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Miss Henrietta Alensonorin
The author

ABSTRACT

P. polytes ledebouria Eschsch. has polymorphic female. The morphological variations of some of these polymorphic females were described, but genetic bases were not mentioned.

In the present work the genetic bases of the morphological variations were investigated by crossbreeding. The data were analyzed, especially the occurrence (ratio) of the stumpy tailed P. polytes praxilla discovered 10 years ago, 1958. Genitalia were also compared as to type, form and sex.

Mass breeding was the method to obtain virgin parents. According to the test crosses inside cages: P_1 (L x H) did not produce P. polytes praxilla (stumpy tailed). P_2 (L x P) which were selected from F_1 and P_3 (L x S) selected from F_2 produced P. polytes ledebouria, P. polytes horsfieldi, P. polytes praxilla, and P. polytes praxilla (stumpy tailed). The failure of the foregoing test conducted inside the cage, of P_1 to produce P. polytes praxilla (stumpy tailed) were due to environmental conditions such as light, food plants, temperature, rainfall, wind, parasites and predators.

The crosses between individuals were analyzed and the evidence showed that the production of the stumpy tailed P. polytes praxilla is under polygenic control.

Population studies were done by marking, capturing, releasing and recapturing the specimens.

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