GROWTH AND SURVIVAL OF SNAKEHEAD (*Channa* sp.) LARVAE FED WITH BRINE SHRIMP (*Artemia* sp.) NAUPLII AND *Moina* sp.

by

JEROME JACOB QUIDASOL

An Undergraduate Thesis presented to the faculty of the College of Fisheries In partial fulfillment of the requirements for the degree of

BACHELOR OF SCIENCE IN FISHERIES

Department of Aquatic Post-Harvest
COLLEGE OF FISHERIES
CENTRAL LUZON STATE UNIVERSITY
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JEROME JACOB QUIDASOL

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDIX TABLES

LIST OF APPENDIX FIGURES

GROWTH AND SURVIVAL OF SNAKEHEAD (*Channa* sp.) LARVAE FED WITH BRINE SHRIMP (*Artemia* sp.) NAUPLII AND *Moina* sp.[1/]

ABSTRACT

Two experiments were conducted with the objective of assessing the effect of two selected diets on the growth performance, survival rate and food preference of snakehead fish larvae (*Channa* sp.). The experiments were carried out using 60-liters capacity glass aquaria with 20 liters of water volume. Live food such as *Artemia* sp. nauplii and *Moina* sp. were given to larvae three times daily from 1-21 days after hatching when the yolk sac was totally absorbed by the larvae. The first experiment was conducted to evaluate the growth performance and survival rate of snakehead larvae fed with *Artemia* sp. nauplii and *Moina* sp. Results showed higher length gain, weight gain, and SGR in larvae fed with *Artemia* sp. nauplii compared to larvae fed with *Moina* sp. with values 23.3187 mm, 118.35 mg, 11.4994 % and 21.7714 mm, 84.4267 mg, 10.0124 %, respectively. In the present study, higher mortality due to cannibalism was also observed in larvae fed with *Artemia* sp. nauplii (19.6667 ± 6.50) compared to *Moina* sp. (14.3333 ± 10.04). Meanwhile, survival rate was observed to be higher in larvae fed with *Moina* sp. compared to larvae fed with *Artemia* sp. nauplii with values, 56.3333 ± 10.59 and 45 ± 15.04, respectively. Statistically, no significant difference was observed in both treatments in terms of length gain, weight gain, SGR, cannibalism and survival rate. The second experiment aimed to determine the food preference of snakehead fish (*Channa* sp.) larvae. It was found out that the snakehead fish age 13, 20 and 27 days old consumed both *Artemia* sp. nauplii and *Moina* sp. However, statistical analysis showed significantly higher relative percentage occurrence of *Moina* sp. compared to *Artemia* sp. nauplii in the digestive tract of snakehead fish of age 13, 20 and 27 days old with values 65.6218, 67.0354, 54.6904 % and 34.3782, 32.9646 and 45.3096 %, respectively. The study suggested that *Moina* sp. is a suitable live food and a potential substitute for *Artemia* sp. nauplii in the larval rearing of snakehead fish (*Channa* sp.).

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