OCCURRENCE OF CRYPTOSPORIDIUM SPP. OOCYST AND GIARDIA LAMBLIA CYST IN MALLARD DUCKS (ANAS PLATYRHYNCHOS) IN GENERAL TRIAS, CAVITE

A Research Presented to the
Biological Sciences Department
College of Science and Computer Studies
De La Salle University - Dasmariñas
City of Dasmariñas, Cavite

In Partial Fulfilment of the Requirements for the Degree of Bachelor of Science Major in Human Biology

CLARISSA H. AMOS PAMELA C. DOMINGO

March 2014

ABSTRACT

The study investigated the occurrence of protozoans *Cryptosporidium spp*. and Giardia lamblia among Mallard ducks found in General Trias, Cavite. Forty fecal samples were collected from the forty duck hosts through the hand-grab technique. Fecal material was prepared using Formalin Ether Concentration Technique and was subjected to the Meriflour rapid kit test. An x^2 (chi-squared) test was used for the determination of the significant differences in percent occurrence on the age and sex of the hosts. Results showed that half of the hosts were infected, with the highest infection among young females (20%), followed by adult females and young females (15%), and none among young male ducks. Out of the forty duck hosts, sixteen (40%) were positive with Cryptosporidium spp. and four (10%) were positive with Giardia lamblia. Out of the 56 identifiable Cryptosporidium spp. oocyst and Giardia lamblia cyst, young Mallard ducks were the most infected (75%), while the male species obtained the highest percentage occurrence of infection for both Cryptosporidium oocyst (51.79%) and Giardia cyst (23.21%). The uses of sewage effluent and snails as food were considered to be the main factors of infection. In conclusion, there is no significant difference (P<0.05) in the percentage occurrence of Cryptosporidium spp. oocyst and Giardia lamblia cyst between young and adult, and between male and female Mallard ducks.

TABLE OF CONTENTS

Title page	1
Abstract	2
Approval Sheet	3
Acknowledgements	4
1.0 INTRODUCTION	
1.1 Background of the Study	8
1.2 Conceptual Framework	10
1.3 Statement of the Problem	11
1.4 Hypotheses	11
1.5 Scope and Limitation	12
1.6 Significance of the Study	12
1.7 Definition of terms	14
2.0 RELATED LITERATURE	
2.1 Conceptual Literature	16
2.2 Related Literature	23
3.0 METHODOLOGY	
3.1 Research Design	30
3.2 Research Setting	30
3.3 Research Procedure	31
3.4 Data Gathering and Statistical Treatment	35



4.0 RESULTS AND DISCUSSION	36
5.0 CONCLUSION AND RECOMMENDATIONS	
5.1 Conclusions	47
5.2 Recommendations	48
CITED REFERENCES	49
APPENDICES SIMPLE OF THE PROPERTY OF THE PROPE	
A: Map of Study Site	57
B: Standard Procedure	58
C: Age and Sex Determination by Plumage in Ducks	61
D: Raw Data	64
E: Statistical Analysis of Significant Difference	65
F: Photodocumentation	67
G: Certificate of Taxonomic Identification	69
H: Certificate of Verification	70