


**PRELIMINARY STUDY ON THE DIVERSITY AND
ABUNDANCE OF *Onthophagus* SPECIES IN KG. BETING,
KUALA PILAH**

AERMA ATIKA BINTI AZMAN

**Final Year Project Report Submitted in
Partial Fulfillment of the Requirements for the
Degree of Bachelor of Science (Hons.) Biology
In the Faculty of Applied Sciences
Universiti Teknologi MARA**

JANUARY 2019

This Final Year Project Report entitled “**PRELIMINARY STUDY ON THE DIVERSITY AND ABUNDANCE OF *Onthophagus* SPECIES IN KG. BETING, KUALA PILAH**” was submitted by Aerma Atika Binti Azman, in partial fulfillment of the requirements for the Degree of Bachelor of Science (Hons.) Biology, in the Faculty of Applied Sciences, and was approved by



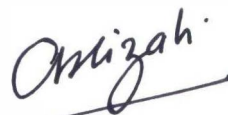
Sarah Shazwani binti Zakaria
Supervisor
Faculty of Applied Sciences
Universiti Teknologi MARA
40450 Shah Alam Selangor



Nur Hasyimah binti Ramli
Co Supervisor
Faculty of Applied Sciences
Universiti Teknologi MARA
40450 Shah Alam Selangor



Siti Norazura binti Jamal
Coordinator FSG661 AS201
Faculty of Applied Sciences
Universiti Teknologi MARA
40450 Shah Alam
Selangor



Dr. Aslizah binti Mohd Aris
Head of Biology School
Faculty of Applied Sciences
Universiti Teknologi MARA
40450 Shah Alam
Selangor

Date: _____

TABLE OF CONTENTS

	PAGE
ACKNOWLEDGEMENT	iii
TABLE OF CONTENTS	iv
LIST OF TABLE	vi
LIST OF FIGURES	vii
LIST OF ABBREVIATIONS	viii
ABSTRACT	ix
ABSTRAK	x
CHAPTER 1: INTRODUCTION	
1.1 Background Study	1
1.2 Problem Statement	2
1.3 Significance of the Study	2
1.4 Objective of the Study	3
CHAPTER 2: LITERATURE REVIEW	
2.1 Coleoptera	4
2.2 <i>Onthophagus</i> spp.	5
2.3 Diversity	6
2.3.1 Richness	7
2.3.2 Evenness	7
CHAPTER 3: METHODOLOGY	
3.1 Materials	9
3.1.1 Raw Material	9
3.1.2 Chemicals	9
3.1.3 Apparatus	9
3.2 Methods	10
3.2.1 Pitfall traps	10
3.2.2 Sample collection	12
3.2.3 Isolation and record the sample of <i>Onthophagus</i> spp.	13
3.2.4 Statistical analysis	14

CHAPTER 4: RESULT AND DISCUSSION	
4.1	The distribution and abundance of <i>Onthophagus</i> spp. nocturnal and diurnal in Kg. Beting, Kuala Pilah 17
4.2	The diversity and abundance of <i>Onthophagus</i> spp. nocturnal and diurnal at oil palm plantation 19
4.3	The diversity and abundance of <i>Onthophagus</i> spp. nocturnal and diurnal at oil palm plantation 21
4.4	The diversity index (H'), evenness (E'), and richness (R') of <i>Onthophagus</i> spp. 23
CHAPTER 5: CONCLUSION AND RECOMMENDATIONS 26	
CITED REFERENCES 27	
APPENDICES	
CURRICULUM VITAE 31	

ABSTRACT

PRELIMINARY STUDY ON THE DIVERSITY AND ABUNDANCE OF *Onthophagus* SPECIES IN KG. BETING, KUALA PILAH

Studies was carried out in Kampung Beting, Kuala Pilah Negeri Sembilan to determine the species, morphology and characteristic of the dung beetle. The important of study the *Onthophagus* species are to identify the diversity, richness and evenness of *Onthophagus* spp. at oil palm plantation and forest area. The diversity and abundance of the *Onthophagus* spp., nocturnal and diurnal also has been observed. The dung beetle are more abundance in oil palm plantation compared to in the forest in Kuala Pilah. The pitfall traps were used to trap the *Onthophagus* spp. rotten fish are used as baited to attract the *Onthophagus* spp. during sampling. Number of individuals that has been caught in Kg. Beting, Kuala Pilah are 356 of individuals during nocturnal and diurnal. Improvements of this research can be implemented if the length of this experiment will extended and the replication of samples can be increase. By conducted this experiment, it will help to increase the record of the *Onthophagus* species in Malaysia.