

**DIVERSITY AND ABUNDANCE OF *Onthophagus* sp. AND
THEIR RELATIONSHIP WITH ABIOTIC PARAMETERS**

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TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS	ii
TABLE OF CONTENTS	iii
LIST OF TABLES	v
LIST OF FIGURES	vi
LIST OF ABBREVIATIONS	vii
ABSTRACT	viii
ABSTRAK	ix
CHAPTER 1 INTRODUCTION	
1.1 Background of study	1
1.2 Problem statement	2
1.3 Significance of study	3
1.4 Objectives of study	4
CHAPTER 2 LITERATURE REVIEW	
2.1 <i>Onthophagus</i> (Coleoptera: Scarabaeidae)	5
2.2 Characteristics of <i>Onthophagus</i> sp.	7
2.3 Categorization of dung beetles	8
2.4 Abiotic parameters	9
2.4.1 Soil parameters	10
2.4.2 Air parameters	11
2.5 Activity pattern	12
CHAPTER 3 METHODOLOGY	
3.1 Material	15
3.1.1 Raw materials	15
3.1.2 Chemicals	15
3.1.3 Apparatus and instruments	15
3.2 Methods	15
3.2.1 Sampling sites selection	16
3.2.2 Sampling method	16
3.2.3 Samples collection	17
3.2.4 Samples isolation	17
3.2.5 Species identification and data record	18
3.2.6 Determination of soil parameters	18
3.2.7 Determination of air parametes	19
3.2.8 Second replication	19
3.3 Data analysis	20
CHAPTER 4 RESULTS AND DISCUSSION	

4.1	The diversity and abundance of <i>Onthophagus</i> sp. at Kg. Beting, Kuala Pilah	22
4.1.1	The diversity and abundance of <i>Onthophagus</i> species at oil palm plantation	24
4.1.2	The diversity and abundance of <i>Onthophagus</i> species at UiTM forest	25
4.2	Diversity index analysis of <i>Onthophagus</i> species	27
4.3	Correlation coefficient between <i>Onthophagus</i> species with soil parameters	28
4.4	Correlation coefficient between <i>Onthophagus</i> species with air parameters	29
4.5	Relationship between stations and air parameters	31
4.6	Relationship between stations and soil parameters	34
CHAPTER 5 CONCLUSION AND RECOMMENDATION		37
CITED REFERENCES		39
APPENDICES		46
<i>CURRICULUM VITAE</i>		48

ABSTRACT

DIVERSITY AND ABUNDANCE OF *Onthophagus* sp. AND THEIR RELATIONSHIP WITH ABIOTIC PARAMETERS

The diversity and abundance of *Onthophagus* sp. which is commonly known as dung beetle have been investigate. This research aims to identify the diversity and abundance of *Onthophagus* sp. at oil palm plantation and UiTM forest and to determine the relationship between *Onthophagus* sp. with the air and soil parameters. The sampling activities were conducted twice for three days a week in two weeks. About 15 pitfall traps were buried randomly at each station with minimum distance of 5 meters from each bucket. Rotten fishes were used as a bait and the baited pitfall traps were leaved overnight. The samples with the air and soil parameters was recorded during the samples collection. Then, all the samples were bring to the laboratory for species identification. As the results, a total of 302 individuals was collected at both stations. The highest abundance of dung beetles recorded at both sampling sites is *Onthophagus rugicollis* with a total of 116 individuals and the lowest are *Onthophagus peninsularis*, *Onthophagus cervus*, *Onthophagus* sp. 1, *Onthophagus* sp. 2 and *Onthophagus* sp. 3 with only one number of individual for each species. This research can be improved by extending the time to do research to get a quality and accuracy results. However, this research will help to increase the data collections on abundance and diversity of dung beetles and increase the understanding on their relationship with abiotic parameters especially in Malaysia. Whereas, it also might helps in increasing the agricultural production by improving nutrient of the soil, with associated benefits to plants.