

**DISTRIBUTION AND ABUNDANCE OF NON-FLYING SMALL
MAMMALS IN WESTERN GAYA ISLAND, SABAH, MALAYSIA**

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CHAPTER 1: INTRODUCTION

1.1 Background of study

1.2 Problem Statement

1.3 Significance of Study

1.4 Objectives of the Study

(Hellena Anak Rahit)

2.1 Non-Flying Small Mammals

2.1.1 Reproductive Behavior

2.1.2 Mating behavior

2.1.3 Feeding Behaviour

2.1.4 Diversity of Small Mammals

2.1.5 Threat

2.1.6 Status of Conservation

CHAPTER 3: METHODOLOGY

3.1 Sampling Site

3.2 Sampling Method

3.3 Identification

3.4 Data Analysis

TABLE OF CONTENTS

	PAGE
ACKNOWLEDGEMENTS	iii
TABLE OF CONTENTS	iv
LIST OF TABLES	vi
LIST OF FIGURES	vii
LIST OF ABBREVIATIONS	viii
ABSTRACT	ix
ABSTRAK	x
CHAPTER 1: INTRODUCTION	1
1.1 Background of Study	1
1.2 Problem Statement	2
1.3 Significance of Study	3
1.4 Objectives of the Study	3
CHAPTER 2: LITERATURE REVIEW	4
2.1 Non-Flying Small Mammals	4
2.1.1 Reproductive Behavior	5
2.1.2 Mating behavior	6
2.1.3 Feeding Behaviour	6
2.1.4 Diversity of Small Mammals	7
2.1.5 Threat	9
2.1.6 Status of Conservation	10
CHAPTER 3: METHODOLOGY	12
3.1 Sampling Site	12
3.2 Sampling Method	14
3.3 Identification	14
3.4 Data Analysis	15

3.4.1	Relative Abundance	15
3.4.2	Shannon-Weiner Index	15
CHAPTER 4: RESULT AND DISCUSSION		17
4.1	Species of non-flying small mammals in the terrestrial area of Gaya Island.	17
4.2	The distribution pattern of non-flying small mammals in the terrestrial area of Gaya Island	20
4.3	The relative abundance of non-flying small mammals	24
CHAPTER 5: CONCLUSION AND RECOMMENDATIONS		26
CITED REFERENCES		27
APPENDICES		31
CURRICULUM VITAE		34

ABSTRACT

DISTRIBUTION AND ABUNDANCE OF NON-FLYING SMALL MAMMALS IN WESTERN GAYA ISLAND, SABAH, MALAYSIA.

A study on the non-flying small mammals was conducted in Western Gaya Island of Tunku Abdul Rahman Marine Park from 20th March 2015 to 23th April 2015. It covers a total of six trails in the Island namely as Padang Point Trail (1.95km), Police Beach Trail (3.25km), Highest Point Trail (3km), Highest Point 2 Trail (3.5km), Sunset Trail (1.5km) and Police beach 2 Trail (3km). The sample was collected by using 20 wire cage traps baited with banana and GPS was used to mark the location of the traps. The objectives of the study were to identify the species of non-flying small mammals in Gaya Island, to map out the distribution and to determine the relative abundance of the non-flying small mammals in the study area. The non-flying small mammals were euthanized with anesthetic chloroform to make the small mammals to be in unconscious state and individuals were identified based on the sex, pelage colour, the body size and the feet morphology. With the trapping effort of 120 trap-nights, 50 individuals of non-flying small mammals with 2 species from the families of Muridae were caught that were 40 *Rattus baluensis* and 10 *Maxomys rajah*. Species number decreased with the increasing of elevation of the study site from sea level and decreased at the location that near their predator. The *Rattus baluensis* were found to have most diverse distribution along the study site, while *Maxomys rajah* were only found near the twigs.