

ETHNOBOTANICAL STUDY OF MEDICINAL PLANTS
USED BY BISAYA COMMUNITIES ALONG PADAS
RIVER, BEAUFORT, SABAH

IRMAH ANWAR

BACHELOR OF SCIENCE (Hons.) BIOLOGY
FACULTY OF APPLIED SCIENCE
UNIVERSITI TEKNOLOGI MARA

JANUARI 2016

ACKNOWLEDGEMENTS

TABLE OF CONTENTS

Firstly, I would like to express my sincere gratitude to my advisor Mr. Abdul Manap Mahmud for the continuous support of my research study, for his patience, motivation, and immense knowledge. His guidance helped me in all the time of research and writing of this thesis. I could not have imagined having a better advisor and mentor for my degree study.

Besides my advisor, I would like to thank the rest of my thesis committee: Mr. Ajimi Jawan, Mr. Ansir Salim, Ms. Patricia, Mrs. Sarayati Abd. Mawah and Mrs. Farnidah Jasnier for their insightful comments and encouragement, but also for the hard question which incited me to widen my research from various perspectives. In particular, I am grateful to Miss Siti Aminah as the Programme Coordinator for enlightening me the first glance of research.

I thank my fellow ethnobotanical team mates for the stimulating discussions, for the sleepless nights we were working together before deadlines, and for all the fun we have had in the last four years.

Last but not least, I would like to thank my family: my parents and to my brothers and sister for supporting me spiritually throughout writing this thesis and my life in general.

Irmah Binti Anwar

TABLE OF CONTENTS

	PAGE
ACKNOWLEDGEMENTS	iii
TABLE OF CONTENTS	iv
LIST OF TABLES	viii
LIST OF FIGURES	ix
ABSTRACT	x
ABSTRAK	xi
CHAPTER 1: INTRODUCTION	
1.1 Background of Study	1
1.2 Problem Statement	4
1.3 Significance of Study	5
1.4 Objectives of Study	5
CHAPTER 2: LITERATURE REVIEW	
2.1 Definition of Ethnobotany	6
2.2 Potential of Medicinal Plant	7
2.3 Medicinal Plants in Asia	8
2.4 Medicinal Plants in Malaysia	9
2.5 Medicinal Plants in Sabah	10
CHAPTER 3: METHODOLOGY	
3.1 Materials	
3.1.1 Raw Materials	12
3.1.2 Apparatus	12
3.1.3 Chemical	12
3.2 Methods	
3.2.1 Pilot Study	13
3.2.2 Interviews	14
3.2.3 Sample Collections	
3.2.3.1 Sampling	15

3.2.3.2	Tagging	16
3.2.4	Preparation of Deposited Specimen Voucher	
3.2.4.1	Plant Pressing	17
3.2.4.2	Specimen Drying	18
3.2.4.3	Specimen Mounting	19
3.2.4.4	Identification of Specimen	19
3.2.4.5	Classification of Specimen	20
3.2.4.6	Constructing a Dichotomous Key	21

CHAPTER 4: RESULTS AND DISCUSSION

4.1	Plants traditionally used as medicines by the Bisaya communities along Padas-River, Beaufort, Sabah.	
4.1.1	Plants traditionally used as medicines by the Bisaya Communities in Lubak Sebang, Beaufort.	22
i.	<i>Plantago major</i> L.	27
ii.	<i>Phyllanthus niruri</i> L.	27
iii.	<i>Euphorbia hirta</i> L.	28
iv.	<i>Orthosiphon aristatus</i> (Blume) Miq.	29
v.	<i>Strobilanthes crispus</i> T. Anders.	29
vi.	<i>Opuntia acanthanthera</i> Speg.	30
vii.	<i>Cacalia cinerea</i> (L.) Kuntze	31
viii.	<i>Barbarea vulgaris</i> R.Br.	31
ix.	<i>Eleusine indica</i> (L.) Gaertn.	32
x.	<i>Helminthostachys zeylanica</i> (L.) Hook.	33
xi.	<i>Corchorus aestuans</i> L.	33
xii.	<i>Andropogon nardus</i> L.	34
xiii.	<i>Punica granatum</i> L.	35
xiv.	<i>Lantana urticoides</i> Hayek	35
xv.	<i>Cacalia cylindriflora</i> Wall.	36
xvi.	<i>Dischidia nummularia</i> R. Br.	37
xvii.	<i>Pterocarpus dalbergioides</i> DC.	37
xviii.	<i>Psidium guajava</i> L.	38
xix.	<i>Carica papaya</i> L.	38
xx.	<i>Citrus aurantiifolia</i> (Christm.) Swingle	39
xxi.	<i>Aloe vera</i> (L.) Burm.f.	40
xxii.	<i>Capsicum frutescens</i> L.	40
xxiii.	<i>Cosmos caudatus</i> Kunth	41
xxiv.	<i>Melastoma malabathricum</i> L.	42
xxv.	<i>Macaranga capensis</i> (Baill.) Sim	42
xxvi.	<i>Annona muricata</i> L.	43
xxvii.	<i>Lawsonia inermis</i> L.	44
xxviii.	<i>Ananas comosus</i> (L.) Merr.	44
xxix.	<i>Hibiscus rosa-sinensis</i> L.	45
xxx.	<i>Leucaena leucocephala</i> (Lam.) de Wit	45

ABSTRACT

ETHNOBOTANICAL STUDY OF MEDICINAL PLANTS USED BY BISAYA COMMUNITIES ALONG PADAS RIVER, BEAUFORT, SABAH

This paper presents the results of ethnobotanical studies on medicinal plants used traditionally by the Bisaya Communities along Padas River, Beaufort, Sabah. A total of 63 species of medicinal plants were noted and collected during the surveys. To this extent, several species of medicinal plants such as *Phyllanthus niruri*, *Orthosiphon aristatus*, *Andropogon nardus*, *Cacalia cylindriflora*, *Melastoma malabathricum* were identified to be naturally distributed on that area. Most plant parts (boiled and drink) identified such as (bark, root, seeds, fruit, and leaf) serve as major source of active ingredient to be used by the traditional practitioners. Several visits were made to the villages along the Padas River between August 2015 and November 2015 for collection, identification and naming of the plants used. Data was collected through the use of questionnaires and personal interviews during the field trips.