

**A MEDICINAL PLANTS USED BY BRUNEI
COMMUNITY ALONG WESTON
WETLAND AREA, BEAUFORT,
SABAH.**

MUHAMMAD KHAIRUL FAHMI BIN MUSA

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

JANUARY 2017

ACKNOWLEDGEMENTS

In the Name of Allah, the Most Gracious and Merciful, praise be to Allah, Lord of the Universe, and peace and prayers be upon His final Prophet and Messenger. I would like to express my gratitude to many parties. My heartfelt thanks goes to my supervisor, Mr Abdul Manap bin Mahmud, who expertly guided me through my graduate education and who shared the excitement of two semesters to completed this final year report.

My appreciation also extends to Mr Ajimi Hj. Jawan as facilitator of the thesis paper for monitoring final year students to complete final year project. My deep gratitude goes to my parents Mr. Musa bin Hj. Kamar and Mrs. Fatimah binti Hj. Mahlan, who always give support and encouragement for pushing me farther than I thought I could go. Only Allah can repay all your kindness.

Muhammad Khairul Fahmi bin Musa

TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS	iii
TABLE OF CONTENTS	iv
LIST OF TABLES	vi
LIST OF FIGURES	vii
ABSTRAK	viii
ABSTRACT	ix
CHAPTER 1 INTRODUCTION	
1.1 Background Study	1
1.2 Problem Statement	5
1.3 Significance of the Study	6
1.4 Objectives of the Study	6
CHAPTER 2 LITERATURE REVIEW	
2.1 Definition of the Study	7
2.2 Medicinal Plants in Sabah	9
2.3 Identification, Useful and Awareness of Medicinal Plants	11
2.4 Dichotomous Key and Nomenclature of Medicinal Plant	16
2.5 Bio-Economic Value of Medicinal Plants	18
CHAPTER 3 METHODOLOGY	
3.1 Materials	24
3.1.1 Raw materials	24
3.1.2 Chemical	24
3.1.3 Apparatus	24
3.2 Methods	25
3.2.1 Determination and Identification of the Medicinal Plants	25
1. Survey Study Area	25
2. Interview	25
3. Collecting Sample	27
4. Specimen Preparation	28
3.2.2 Construction of Dichotomous Key	31
3.2.3 Bio-Economic Value	31

1. Survey Study Area	31
2. Interview	31
3. Collecting Data	32
3.3 Data Analysis	33
3.3.1 Identification of the Medicinal Plants	33
3.3.2 Identification of Dichotomous	34
3.3.3 Bio-Economic Calculation	35
CHAPTER 4 RESULT AND DISCUSSION	
4.1 The Medicinal Plants used by Villagers	36
4.1.1 Medicinal Plants used in Kampung Weston	37
4.1.2 Medicinal Plants used in Kampung Lubok	45
4.1.3 Medicinal Plants and their usage	48
4.1.4 The Family of Medicinal Plants	49
4.1.5 Types of Disease Treated	51
4.1.6 The Medicinal Plants Form	53
4.1.7 Medicinal Plants Preparation Method	55
1. Part of Plant Used	55
2. Forms of Medication	56
3. Route of Administration	58
4.2 Dichotomous Key of Medicinal Plants	59
4.3 Bio-Economic Index	69
4.3.1 Market Data of Bio-Economic Index	69
4.3.2 Analysis of Bio-Economic Index	75
CHAPTER 5 CONCLUSION AND RECOMMENDATIONS	
	76
CITED REFERENCES	78
APPENDICES	84
<i>CURRICULUM VITAE</i>	126

ABSTRACT

A MEDICINAL PLANTS USED BY BRUNEI COMMUNITY ALONG WESTON WETLAND AREA, BEAUFORT, SABAH.

The aim of this study was to determine and identify the medicinal plants used by villagers along Weston Wetland Area, to construct a dichotomous key according disease treated and to determine the Bio-Economic value. The methods of this study consist of field work study (survey study area) and laboratory work (sample preparation). There are 50 plants was practically used as medicinal for treat diseases. Which consist of kingdom (1), phylum (2), class (4), subclass (10), order (27), family (36), genus (50) and species (50). In Bio-Economic, for high value of medicinal plants was observed among four markets (Beaufort, Sipitang, Membakut and Weston), where the medicinal plants sold can be commercialized in order to give high income to traders itself. As conclusion, 50 plants was collected which conclude two phylum of Magnoliophyta and Pteridophyta. Phylum of Magnoliophyta consists of class of Liliopsida and Magnoliopsida, while Phylum of Pteridophyta consists of class of Filicopsida and Lycopodiopsida. Magnoliophyta is the phylum that comprises from flowering plants and Pteridophyta is the phylum that involves of vascular plants and leaves. Moreover, the classification of dichotomous key are constructed which kingdom (1), phylum (2), class (4), subclass (10), order (27), family (36), genus (50) and species (50). The Bio-Economic Value study helped inform local collectors or farmers about the value-added products derived from medicinal plants sold like batang pisang, asam jawa, cangkuk manis and ulam raja as mainly dominated in the market. It also increases the linkage in the market chain from collectors around Borneo in order to get high income.