# ETHNOBOTNICAL STUDY ON MEDICINAL PLANT USED BY SUNGAI ETHNIC ALONG MIDDLE STREEM BONGKOKA RIVER, PITAS, SABAH

NORFALAHANI BINTI SULAIMAN

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

JULY 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. Sulaiman Bin Ayu and Mrs.Murni Binti Masimi, who always give support and encouragement for pushing me farther than I thought I could go. Only Allah can repay all your kindness.

Moreover all respondent, villagers, seller in Market and also all my friend that help along the journey to completed Final Project.

Norfalahani Binti Sulaiman

## TABLE OF CONTENTS

Page

ACKNOWLEDGEMENTS TABLE OF CONTENTS LIST OF TABLES								
				LIST	LIST OF FIGURES			
				LIST OF ABBREVIATIONS				
ABSTRACT								
ABS	<b>FRAK</b>		Х					
		NTRODUCTION						
1.1		and Study	1					
1.2	Problem	FIRETERING AND A TRANSPORT AND A STATE OF A	3					
1.3	0		4					
1.4	Objective	es of the Study	5					
CILL								
		ITERATURE REVIEW						
2.1	Ethnobot		6					
		thnic background	8					
		Definition of ethnobotany	° 9					
		Iedicinal plants in Sabah	11					
22		nportant of ethnobotany study	11					
2.2		nous Key	12					
		Definition of dichotomous key lant identification	12					
2.2			15					
2.3		c Value Index (EVI) of Medicinal Plants	17					
		ormula of Economic Value Index (EVI)	17					
	2.3.2 E	conomic Value Index (EVI) around the world	10					
СНА	PTED 3 M	<b>IETHODOLOGY</b>						
3.1	Materials		21					
5.1		Raw materials	21					
		Chemical	21					
		Apparatus	22					
3.2	Methods	**	22					
5.2		Determination and Identification of the Medicinal Plants	24					

	3.2.1.1	Survey Study Area	26
	3.2.1.2	Data Collection	27
	3.2.1.3	Collection sample	28
	3.2.1.4	Preparation of specimen voucher	31
	3.2.1.5	Identification of sample	35
	3.2.2 Con	struction of Dichotomous Key	
	3.2.2.1	Data collection	36
	3.2.2.2	Identification	36
	3.2.2.3	Construction of dichotomous key	37
	3.2.3 Ecc	nomic Value Index (EVI)	
	3.2.3.1	Survey Study Area	38
	3.2.3.2	Data collection	38
	3.2.3.3	Calculation of Economic Value Index (EVI)	38
3.3	Data Analy	sis	
	3.3.1 Ider	tification of the Medicinal Plants	39
	3.3.2 Con	struction of Dichotomous key	39
	3.3.3 Eco	nomic Value Index (EVI) Calculation	40

## CHAPTER 4 RESULT AND DISCUSSION

4.1	The Medicinal Plants used by Villagers	41
4.2	Dichotomous Key of Medicinal Plants	69
4.3	Economic Value Index (EVI)	84

CHA	PTER 5 CONCLUSION AND RECOMMENDATIONS	
5.1	Documentation of medicinal plant and recommendation	91
5.2	Dichotomous Key of Sungai ethics and recommendation	92
5.3	Economic Value Index (EVI) and recommendation	93

CITED REFERENCES	94
APPENDICES	99
CURRICULUM VITAE	152

### ABSTRACT

## ETHNOBOTANICAL STUDY ON MEDICINAL PLANT USED BY SUNGAI ETHNICS ALONG MIDDLE STREAM BANGKOKA RIVER, PITAS, SABAH

Ethnobotany is a relationship between plant and human. This study had done to determine and identify the medicinal plants used by Sungai ethnic along, Middle Stream of Bangkoka River, Pitas, Sabah. Results for this study, from interviews of five villages found that 65 plants from 39 families of medicines used by Sungai ethnics in Pitas, could treated 41 diseases. Decoction of leaves and roots are commonly used to treat diseases. Also the plant status, growth form, frequency and lifespan of medicinal plants was found. The classification of dichotomous key are constructed which one kingdom, one phylum, two class, nine subclass, 28 order, 39 family, 65 genus and 65 species. Moreover, in the Economic Index Value (EVI), *Bawing, Binterung, Kempayas, Durian Belanda, Halia, Kelapa, Kunyit, Lada korok, Peria Hutan, Pinang, Serai*, dan *Tawadak* are the 14 species of medicinal plants sold in Pitas Market and their highest Economic Index Value (EVI) is the *Durian belanda (Annona muricata* L) and *Kempayas (Carica papaya* Linn). The documented information from this study can be used for further studies on phytochemical confirmation.