

**PHYTOCHEMICAL ANALYSIS OF LICHEN (*Parmotrema  
praesoraediosum*) AND ITS ANTIBACTERIAL ACTIVITY**

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This Final Year Project Report entitled “**Phytochemical Analysis of lichen (*Parmotrema praesorediosum*) and its antibacterial activity**” was submitted by Nur Alya Binti Abdul Razak, in partial fulfillment of the requirements for the Degree of Bachelor of Science (Hons.) Chemistry, in the Faculty of Applied Sciences, and was approved by



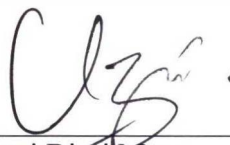
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## TABLE OF CONTENTS

	<b>Page</b>
<b>ACKNOWLEDGEMENTS</b>	iii
<b>TABLE OF CONTENTS</b>	iv
<b>LIST OF TABLES</b>	vi
<b>LIST OF FIGURES</b>	vii
<b>LIST OF ABBREVIATION</b>	viii
<b>ABSTRACT</b>	ix
<b>ABSTRAK</b>	x
<b>CHAPTER 1 : INTRODUCTION</b>	
1.1 Background of Study	1
1.2 Problem Statement	3
1.3 Significant of the Study	4
1.4 Objectives of the Study	5
<b>CHAPTER 2 : LITERATURE REVIEW</b>	
2.1 Lichen	6
2.2 Lichen <i>Parmotrema</i> Genus	10
2.2.1 Morphology and Anatomy	11
2.2.2 Phytochemical Study of <i>Parmotrema</i> Species	12
2.2.3 Uses of <i>Parmotrema</i>	17
<b>CHAPTER 3 : METHODOLOGY</b>	
3.1 Materials	
3.1.1 Raw Materials	19
3.1.2 Chemicals	19
3.1.3 Apparatus	20
3.2 Methodology	
3.2.1 Extraction of <i>Parmotrema</i> species	20
3.2.2 Thin Layer Chromatography (TLC) analysis on the crude extracts	21
3.2.3 Phytochemical analysis on the crude extracts	
3.2.3.1 Test for alkaloid	22
3.2.3.2 Test for flavonoid	22
3.2.3.3 Test for phenolic compounds	22
3.2.3.4 Test for saponins (Froth Test)	23

3.2.4	Antimicrobial assay	
3.2.4.1	Media preparation of nutrient agar (NA)	23
3.2.4.2	Culturing microbe of Nutrient Broth	23
3.2.4.3	Sample preparation	24
3.2.4.4	Zone of inhibition method	24
3.2.4.5	Control test	24
<b>CHAPTER 4 : RESULT AND DISCUSSION</b>		
4.1	Extraction	25
4.2	Thin Layer Chromatography	28
4.3	Phytochemical analysis	35
4.4	Antibacterial activity	39
<b>CHAPTER 5 : CONCLUSION AND RECOMMENDATIONS</b>		43
<b>CITED REFERENCES</b>		45
<b><i>CURRICULUM VITAE</i></b>		

## ABSTRACT

### PHYTOCHEMICAL ANALYSIS OF LICHEN (*Parmotrema Praesorediosum*) AND ITS ANTIBACTERIAL ACTIVITY

This study was done in order to analyze the phytochemical components and to investigate the antibacterial activity of a macrolichen, *Parmotrema praesorediosum*. The sample was extracted using cold extraction method with different polarity of solvents such as hexane, acetone and methanol. The analysis of phytoconstituent in hexane extract, acetone extract and methanol extract were determined through foam test, ferric chloride test, lead acetate test and test for alkaloid. The antibacterial activity of the crude extracts was tested against four microorganisms using the disk-diffusion method. The acetone extract showed the presence of alkaloid, flavonoid, saponin and phenolic compounds. Meanwhile, the methanol extract gave positive results only on the alkaloid, flavonoid and phenolic tests. However, there is no significant phytoconstituent available in the hexane extract. As regard to the antibacterial activity of the samples, we found that, the acetone extract showed a good inhibition against *E.coli*, *B.subtilis* and *S.aureus*. The result revealed that the macrolichen, *P. praesorediosum* has a future potential as antibacterial agent.