

**ISOLATION AND IDENTIFICATION OF PARASITES  
FROM THE SOIL IN PUBLIC PARK AT KUALA PILAH**

**NURLISA DIYANA ELYAS YEOW**

**Final Year Project Submitted in  
Partial Fulfillment of the Requirements for the  
Degree of Bachelor of Science (Hons.) Biology  
in the Faculty of Applied Sciences  
Universiti Teknologi Mara**

**JULY 2017**

This Final Year Project Report entitled “**Isolation and Identification of Parasites from The Soil in Public Park at Kuala Pilah**” was submitted by Nurlisa Diyana Binti Elyas Yeow, in partial fulfilment of the requirements for the Degree of Bachelor of Science (Hons.) Biology, in the Faculty of Applied Science, and was approved by

---

Nurul Asyikin Binti Abdul Rahman  
Supervisor  
B. Sc. (Hons.) Biology  
Faculty of Applied Sciences  
Universiti Teknologi MARA  
Kampus Kuala Pilah  
72000 Kuala Pilah,  
Negeri Sembilan

---

Lili Syahani Binti Rusli  
Project Coordinator  
B. Sc. (Hons.) Biology  
Faculty of Applied Sciences  
Universiti Teknologi MARA  
Kampus Kuala Pilah  
72000 Kuala Pilah,  
Negeri Sembilan

---

Dr. Nor'aishah Binti Abu Shah  
Head of Programme  
B. Sc. (Hons.) Biology  
Faculty of Applied Sciences  
Universiti Teknologi MARA  
Kampus Kuala Pilah  
72000 Kuala Pilah,  
Negeri Sembilan

Date: \_\_\_\_\_

## TABLE OF CONTENT

	<b>Page</b>
<b>ACKNOWLEDGEMENT</b>	<b>III</b>
<b>TABLE OF CONTENTS</b>	<b>IV</b>
<b>LIST OF TABLES</b>	<b>V1</b>
<b>LIST OF FIGURES</b>	<b>V11</b>
<b>LIST OF ABBREVIATIONS</b>	<b>V111</b>
<b>ABSTRACT</b>	<b>IX</b>
<b>ABSTRAK</b>	<b>X</b>
<b>CHAPTER 1: INTRODUCTION</b>	
1.1 Background Study	1
1.2 Problem Statement	3
1.3 Significance of the Study	3
1.4 Objective of the Study	4
<b>CHAPTER 2: LITERATURE REVIEW</b>	
2.1 Soil of Public Park in Kuala Pilah	5
2.2 Common Parasites found in the Soil of public park	
2.2.1 <i>Stongyloides</i> sp.	6
2.2.2 <i>Trichinella</i> sp.	7
2.2.3 <i>Angiostrongylus</i> sp.	8
<b>CHAPTER 3: METHODOLOGY</b>	
3.1 Materials	
3.1.1 Raw materials	10
3.1.2 Chemicals	10
3.1.3 Apparatus	11
3.2 Methods	

3.2.1	Collection Sample	11
3.2.2	Isolation of the parasites	
3.2.2.1	Saturated Salt Flootation Techniques	12
3.2.2.3	Sedimentation method	13
3.2.3	Diagnosis or identifying the parasites	14
3.3	Statistical Analysis	15
<b>CHAPTER 4: RESULTS AND DISCUSSION</b>		
4.1	Isolation of Parasite from soil	17
4.2	<i>Strongyloides</i> sp.	21
4.2.1	Microscopic observation	22
4.3	<i>Trichinella</i> spp.	24
4.3.1	Microscopic observation	24
4.4	<i>Angiostrongylus</i> spp.	26
4.4.1	Microscopic observation	26
<b>CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS</b>		28
CITED REFERENCES		29
APPENDICES		32
CURRICULUM VITAE		37

## **ABSTRACT**

### **ISOLATION AND IDENTIFICATION OF PARASITES FROM SOIL IN PUBLIC PARK FROM KUALA PILAH**

One of the main routes for the transmission of many pathogen parasites was through the eggs present in human and animal faeces, therefore contaminated soil in areas where the hygiene is deprived. This research was performed to isolate pathogen parasites from a public playground in Kuala Pilah and to identify the parasites that can cause pathogenic parasite infections in human. For this research, two of the concentration methods have been used to isolate the parasite from soil of five chosen public parks around Kuala Pilah, which is, the Flootation method and Sedimentation Method. The result from this research showed that 26 out of 50 sample have give positive result for presence of parasite with *Strongyloides* sp. shows the highest number of parasite compared to *Trichinella* sp. and *Angiostrongylus* sp. This research could be useful for further research of pathogen parasite in Kuala Pilah public park by using more confirmative method such as PCR.