

FUNGUS ISOLATED FROM WOUND *Hyphae odorata*  
PORT KAITUMA, TENGKADAK DISTRICT,  
TERENGGANU

SITI ASEPULIN BINTI AZIZEL

FAKULTI SAINS DAN TEKNOLOGI  
UNIVERSITI MALAYSIA TERENGGANU  
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UNIVERSITI MALAYSIA TERENGGANU (UMT)  
21030 KUALA TERENGGANU

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FUNGUS ISOLATED FROM WOUNDED *Hopea odorata* Roxb. IN  
GONG BADAH DISTRICT, TERENGGANU

By

Siti Asfarlina Binti Mazidel

Research Report submitted in partial fulfillment of  
the requirements for the degree of  
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Adalah ini diakui dan disahkan bahawa laporan penyelidikan bertajuk: FUNGUS ISOLATED FROM WOUNDED *Hopea odorata* Roxb. IN GONG BADAK DISTRICT, TERENGGANU oleh SITI ASFARLINA BINTI MAZIDEL, no. matrik: UK 10207 telah diperiksa dan semua pembetulan yang disarankan telah dilakukan. Laporan ini dikemukakan kepada Jabatan Sains Biologi sebagai memenuhi sebahagian daripada keperluan memperoleh ijazah Sarjana Muda Sains Gunaan (Pemuliharaan & Pengurusan Biodiversiti), Fakulti Sains dan Teknologi, Universiti Malaysia Terengganu.

Disahkan oleh: / Verified by:

Penyelia Utama / **JAMILUDDIN MOHD PEZAINO HALIM**  
Nama: **JAMILUDDIN MOHD PEZAINO**  
Pensyarah  
Jabatan Sains Biologi  
Cop Rasmi: **Fakulti Sains dan Teknologi  
Universiti Malaysia Terengganu  
21030 Kuala Terengganu.**

Tarikh: **8/5/07**

Ketua Jabatan Sains Biologi / **Head, Department of Biological Sciences**

Nama: **DR. AZIZ BIN AHMAD**  
Ketua  
Jabatan Sains Biologi  
Cop Rasmi: **Fakulti Sains dan Teknologi  
Universiti Malaysia Terengganu  
21030 Kuala Terengganu**

Tarikh: **8/5/2007**

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## TABLE OF CONTENTS

	<b>PAGE</b>
<b>APPROVAL FORM</b>	ii
<b>ACKNOWLEDGEMENT</b>	iii
<b>LIST OF TABLES</b>	vi
<b>LIST OF FIGURES</b>	vii
<b>LIST OF ABBREVIATIONS</b>	ix
<b>LIST OF APPENDICES</b>	x
<b>ABSTRACT</b>	xi
<b>ABSTRAK</b>	xii
<b>CHAPTER 1 INTRODUCTION</b>	1
1.1 Introduction	1
1.2 Importance of the Study	2
1.3 Objectives of the Study	2
<b>CHAPTER 2 LITERATURE REVIEW</b>	3
2.1 Fungi	3
2.2 Fungus-Wound Interaction	5
2.2.1 Wood Decay Fungi	5
2.3 Tree Response to Wounding and Infection by Fungus	7
<b>CHAPTER 3 METHODOLOGY</b>	9
3.1 Study Site	9
3.2 Sampling of Wounded Stem	11
3.3 Isolation	11
3.4 Identification	11
3.5 Data Analysis	11

<b>CHAPTER 4</b>	<b>RESULTS</b>	12
4.1	Wounded Incidence	12
4.2	Description of isolated fungus	16
4.2.1	F1 Isolate	16
4.2.2	<i>Fusarium</i>	17
4.2.3	<i>Trichoderma</i>	19
4.2.4	<i>Nigrospora</i>	21
4.2.5	F2 Isolate	23
4.2.6	F3 Isolate	24
4.2.7	<i>Aspergillus</i>	25
4.2.8	F4 Fungus	25
4.2.9	F5 Fungus	26
<b>CHAPTER 5</b>	<b>DISCUSSION</b>	27
<b>CHAPTER 6</b>	<b>CONCLUSION</b>	29
<b>REFERENCES</b>		30
<b>APPENDICES</b>		32
<b>CURRICULUM VITAE</b>		42



## LIST OF TABLES

Table		Page
4.1	Overall number of wound recorded on <i>H. odorata</i> sampled from urban plantation at three sites in Gong Badak, Kuala Terengganu.	12
4.2	Mean ( $\pm$ SD) DBH and wound size of host tree sampled in MOBIL Petrol Station, MPKT Office and Sultan Mahmud Airport, Gong Badak, Kuala Terengganu . .	13
4.3	Fungus isolated from wounded stem of <i>Hopea odorata</i> from urban plantation at three sites in Gong Badak, Kuala Terengganu.	14
4.4	The significant values of wound size, number of isolates and wound types tested using Non-parametric Test and ANOVA.	15
4.5	The correlation coefficient values and significant values of wound size, number of isolates and wound types.	16

## LIST OF FIGURES

Figure		Page
2.1	General life cycle of fungi (Adapted from Campbell and Reece, 2002).	4
2.2	The illustration on how a tree limits the extent of decay (Adapted from Shigo, 1977).	8
3.1	Line of urban planting <i>Hopea odorata</i> along the road in front of MOBIL Petrol Station, Gong Badak, Kuala Terengganu.	9
3.2	Line of urban planting <i>Hopea odorata</i> along the road in front of MPKT Office, Gong Badak, Kuala Terengganu.	10
3.3	Line of urban planting <i>Hopea odorata</i> along the road in front of MPKT Office, Gong Badak, Kuala Terengganu.	10
4.1	Number of fungus isolated from 18 wounded <i>H. odorata</i> in Gong Badak District, Kuala Terengganu, based on wound age.	13
4.2	Grayish and fuzzy fungi in pure culture plate (a). The bottom view of F1 plate (b).	16
4.3	Old wound where fungi F1 isolated from with grayish and black mold of morphology.	17
4.4	The pale like pinkish colored of <i>Fusarium</i> pure culture. The white colony of cotton mycelium (a). The bottom view of the plate (b).	18
4.5	Microconidia of <i>Fusarium</i> are abundant, cylindrical to oval, 1- to 2-celled which isolated from old wounded tree along the road near Sultan Mahmud Airport, Gong Badak, Kuala Terengganu.	18
4.6	Macroconidia <i>Fusarium</i> is 3 to 5 septate, curved like canoe shape isolated from old wounded tree in front MOBIL Petrol Station, Gong Badak, Kuala Terengganu.	19

4.7	Yellowish agar culture with green spore in ring-like colonies isolated from old wounded tree in front of MOBIL Petrol Station, Gong Badak, Kuala Terengganu.	20
4.8	Conidia and conidiophores of <i>Trichoderma</i> under compound microscope with 40x magnification.	20
4.9	Illustration of conidia and conidiophores of <i>Trichoderma</i>	21
4.10	White colonies <i>Nigrospora</i> like cotton with black spot isolated from old wounded tree along the road near Sultan Mahmud Airport, Gong Badak, Kuala Terengganu.	21
4.11	Short or simple conidiophores with black conidia under compound microscope with 40x magnification.	22
4.12	Illustration of conidia and conidiophores of <i>Nigrospora</i> .	22
4.13	Brownish colonies of F2 isolate that distributed obtusely	23
4.14	Old wound on <i>H. odorata</i> sampled in front of MPKT office, Gong Badak, Kuala Terengganu.	23
4.15	Fungus like <i>Ganoderma</i> isolated from old wounded tree in front of MPKT office, Gong Badak, Kuala Terengganu.	24
4.16	Fresh wound where F3 fungi were isolated along the road near Sultan Mahmud Airport, Gong Badak, Kuala Terengganu.	24
4.17	Colonies of <i>Aspergillus</i> on Potato Dextrose Agar (a). Conidiophores are upright and simple while the conidia are single cell and globuse (b) (40x).	25
4.18	The cottony brownish mycelium of the fungus (a) and the bottom looks of the culture.	26
4.19	The clustered colonies in pale green color (a) and the reverse side of the fungus.	26

## LIST OF ABBREVIATIONS

cm	-	centimeter
DBH	-	diameter breast height
mm	-	milimeter

## LIST OF APPENDICES

Appendix		Page
1	Result of Univariate Analysis Variance for trees DBH of all study sites (MOBIL Petrol Station, MPKT Office, Gong Badak and Sultan Mahmud Airport).	33
2	Result of Univariate Analysis Variance for trees wound size of all study sites (MOBIL Petrol Station, MPKT Office, Gong Badak and Sultan Mahmud Airport).	35
3	Result of Univariate Analysis Variance for frequency of isolates of all study sites (MOBIL Petrol Station, MPKT Office, Gong Badak and Sultan Mahmud Airport).	37
4	Result of Univariate Analysis Variance for frequency of isolates between wound age (Fresh and old wound).	39
5a	Result of Non-parametric Correlation between wound size and frequency of isolates using Spearman Test.	41
5b	Result of Non-parametric Correlation between trees DBH and frequency of isolates using Spearman Test.	41

## ABSTRACT

Urban planted trees always subjected to mechanical damage and disturbance resulted in wounding of sapwood tissues. Wounded living trees are exposed to invasion by various microorganisms including decay fungus. The importance of this study is for monitoring tree health as part of plant conservation efforts. The study was conducted to examine the occurrence of fungus on stem wound of urban planted *Hopea odorata* around Gong Badak District, Kuala Terengganu. Wound associated fungi were isolated and identified to lowest possible taxa. From 160 trees surveyed, 18 trees showed the presence of stem wound which due to several causes. A total of 4 trees had a fresh wound while 14 trees had an old wound. There were 37 isolates obtained from wounded tissues, 30 isolates from old wound and 7 isolates from fresh wound. Overall, nine morphotypes of fungus were isolated with five morphotypes were unidentified (F1, F2, F3, F4 and F5). Identified morphotypes of fungus consists of *Fusarium*, *Trichoderma*, *Nigrospora* and *Aspergillus*. The most frequently isolated fungus was F1 and the least frequent were *Aspergillus*, F4 and F5. Fungus occurrence was not related to wound age, size or wound severity.

**KULAT YANG DIASINGKAN DARIPADA KECEDERAAN**  
***Hopea odorata* Roxb. DI DAERAH GONG BADAK, TERENGGANU**

**ABSTRAK**

Tanaman bandaran seringkali mengalami kerosakan dan gangguan mekanikal mengakibatkan kecederaan pada tisu sapwood tanaman tersebut. Pokok hidup yang cedera terdedah kepada serangan pelbagai jenis mikroorganisma termasuk kulat yang menyebabkan pereputan pokok. Kepentingan kajian ini adalah untuk memantau kesihatan pokok sebagai sebahagian daripada usaha pemuliharaan tumbuhan. Kajian telah dijalankan untuk meneliti kewujudan kulat pada batang pokok *Hopea odorata* yang luka di daerah Gong Badak, Kuala Terengganu. Kulat yang berasosiasi dengan luka, dipencil dan dikenalpasti kepada taksa yang terendah. Daripada 160 batang pokok yang diperiksa, didapati 18 pokok mengalami luka berpunca daripada beberapa faktor. Sejumlah 4 pokok mempunyai luka yang baru manakala 14 pokok mempunyai luka yang lama. Terdapat 37 isolat kulat yang diperoleh daripada tisu pokok yang terluka, dengan 30 isolat adalah dari luka lama dan 7 isolat dari luka baru. Daripada keseluruhan isolat, terdapat sembilan jenis kulat yang berbeza, dengan lima jenis kulat tidak berjaya dikenalpasti iaitu F1, F2, F3, F4 dan F5. Kulat yang dikenalpasti pula ialah *Fusarium*, *Trichoderma*, *Nigrospora* dan *Aspergillus*. Kulat yang mempunyai kekerapan isolat paling tinggi ialah jenis F1 manakala yang paling rendah adalah *Aspergillus*, F4 dan F5. Kehadiran kulat didapati tidak berkait dengan usia, saiz luka atau keadaan luka.