

COMPARISON OF ABUNDANCE OF FIREFLY COMMUNITY  
IN BENTONG FOREST AND  
MELAYU TANDAN MELUTAN

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COMPOSITION AND ABUNDANCE OF FIREFLY COMMUNITY IN TOK BALI  
MANGROVE FOREST AND KAMPUNG TANDAK, KELANTAN.

By

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Adalah ini diakui dan disahkan bahawa laporan penyelidikan bertajuk: COMPOSITION AND ABUNDANCE OF FIREFLY COMMUNITY AT TOK BALI MANGROVE FOREST AND KAMPUNG TANDAK, KELANTAN. oleh Alesa binti Zainuddin, no. matrik: uk 8513 telah diperiksa dan semua pembedaan yang disarankan telah dilakukan. Laporan ini dikemukakan kepada Jabatan Sains Biologi sebagai memenuhi sebahagian daripada keperluan memperolehi Ijazah Sarjana Muda Sains Gunaan (Pemuliharaan dan Pengurusan Biodiversiti) Fakulti Sains dan Teknologi, Kolej Universiti Sains dan Teknologi Malaysia.

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## TABLE OF CONTENTS

	<b>Page</b>
<b>ACKNOWLEDGEMENTS</b>	ii
<b>LIST OF TABLES</b>	iii
<b>LIST OF FIGURES</b>	iv
<b>LIST OF ABBREVIATIONS</b>	v
<b>LIST OF APPENDICES</b>	vi
<b>ABSTRACT</b>	vii
<b>ABSTRAK</b>	viii
<b>CHAPTER 1 INTRODUCTION</b>	1
1.1 Introduction	1
1.2 Importance of Study	4
1.3 Objectives	5
<b>CHAPTER 2 LITERATURE REVIEW</b>	6
2.1 Family Lampyridae	6
2.2 Firefly Distribution	7
2.3 Life Cycle of Firefly	8
2.4 Why Do Firefly Glowing?	9
2.5 Benefits of Firefly	11
2.6 Threats	12
2.7 Host Plant Preferences	14

<b>CHAPTER 3 METHODOLOGY</b>	15
3.1 Study Site	15
3.2 Samples Collection	17
3.3 Laboratory Work	17
3.3.1 Preservation	18
3.3.2 Drying Specimens	18
3.3.3 Pinning	18
3.3.4 Labeling and Storage	19
3.3.5 Identification Process	19
3.4 Data Analysis	19
3.4.1 Relative Abundance (%)	20
<b>CHAPTER 4 RESULTS</b>	21
4.1 Composition and abundance of firefly community in Tok Bali Mangrove Forest and Kampung Tandak	21
4.2 Glowing time for <i>Pteroptyx malacca</i> in Tok Bali Mangrove Forest	22
4.3 Influences of high and low tide to <i>Pteroptyx malacca</i> in Tok Bali Mangrove Forest	25
4.4 Seasonal impact to <i>Pteroptyx malacca</i> in Tok Bali Mangrove Forest	26
4.5 Host Plant Preferences	28



<b>CHAPTER 5 DISCUSSION</b>	29
5.1 Composition and abundance of firefly community in Tok Bali Mangrove Forest and Kampung Tandak	29
5.2 Genus <i>Lychnuris</i>	30
5.3 Genus <i>Pteroptyx</i>	31
5.4 Host Plant Preferences	31
5.5 Influences of high tide and low tide to <i>Pteroptyx malacca</i> in Tok Bali Mangrove Forest	32
5.6 Seasonal impact to <i>Pteroptyx malacca</i> in Tok Bali Mangrove Forest	34
5.7 Moon phase	35
5.8 Light and noise disturbance	36
<b>CHAPTER 6 CONCLUSION</b>	37
<b>REFERENCES</b>	38
<b>APPENDICES</b>	40
<b>CURICULUM VITAE</b>	44

## LIST OF TABLES

Table		Page
3.1	The description for each study site	15
4.1	Total number of firefly species in Tok Bali Mangrove Forest and Kampung Tandak, Kelantan	20
4.2	<i>Pteroptyx malacca</i> occurrences for every 30 minutes on their host plants; <i>Avicennia alba</i> (Perepat) and <i>Sonneratia caseolaris</i> (Berembang) during low and high tide at Tok Bali, Mangrove Forest.	22
4.3	Total number and percentage of <i>Pteroptyx malacca</i> occurrences for every 30 minutes.	23
4.4	Sampling data for different season.	26

## LIST OF FIGURES

Figure		Page
4.1	Composition of the <i>Pteroptyx malaccae</i> in Tok Bali Mangrove Forest and <i>Lychnuris analis</i> in Kampung Tandak, Kelantan.	21
4.2	<i>Pteroptyx malaccae</i> occurrences for every 30 minutes with the glowing peak time around 9.30 to 10.00 pm.	23
4.3	Percentage of <i>Pteroptyx malaccae</i> composition for every thirty minutes observation in Tok Bali Mangrove Forest.	24
4.4	The differentiation of <i>Pteroptyx malaccae</i> occurrence between high and low tide.	25
4.5	Differences of <i>Pteroptyx malaccae</i> 's composition between dry (SSA1) and wet (SSA3) season.	26

## LIST OF ABBREVIATIONS

FRIM	-	Forest Research Institute Malaysia
hrs	-	hours
km	-	Kilometer
KUSTEM	-	Kolej Universiti Sains dan Teknologi Malaysia
m	-	Meter
MNS	-	Malaysian Nature Society
p.m	-	Latin; after meridian; evening
RM	-	Ringgit Malaysia
SSA	-	Study Site A (Tok Bali Mangrove Forest)
SSB	-	Study Site B (Kampung Tandak)
SSA1	-	First sampling
SSA2	-	Second sampling
SSA3	-	Third Sampling

## ABSTRACT

A study on the composition and abundance of firefly community was conducted in Tok Bali Mangrove Forest (SSA) and Kampung Tandak (SSB), Kelantan from July 2005 until January 2006. There were two species with different genus recorded inhabiting at the study sites. A total 1037 individuals of *Pteroptyx malacca* was recorded in Tok Bali Mangrove Forest while 28 individuals of *Lychnuris analis* was recorded in Kampung Tandak. These two species were totally different in terms of their morphological structure, light colour and behaviour. This study also revealed that some factors had affected the result variation on species composition and distribution. Factors detected were different species behaviour and adaptation, tidal, moon light condition, seasonal impact, host plant preference, glowing peak time and other disturbances.

**KOMPOSISI DAN KEPELBAGAIAN KOMUNITI KELIP – KELIP DI HUTAN  
PAYA BAKAU TOK BALI DAN KAMPUNG TANDAK, KELANTAN.**

**ABSTRAK**

Satu kajian mengenai komposisi dan kelimpahan komuniti kelip-kelip telah dijalankan di Hutan Bakau Tok Bali (SSA) dan Kampung Tandak (SSB), bermula daripada Julai 2005 sehingga Januari 2006. Hasil daripada kajian ini menunjukkan terdapat dua spesis daripada genus yang berlainan mendiami kawasan kajian ini. Sejumlah 1037 individu *Pteroptyx malacca* dijumpai di Hutan Paya Bakau Tok Bali manakala terdapat 28 individu *Lychnuris analis* terdapat di Kampung Tandak. Kedua – dua spesies ini mempunyai perbezaan yang ketara dari segi struktur morfologi, warna lampu yang dihasilkan dan juga kelakuan. Kajian ini juga mendedahkan bahawa terdapat beberapa faktor yang memberi kesan variasi keputusan kajian dari segi komposisi dan taburan spesies. Faktor yang dikenalpasti adalah kelakuan dan adaptasi bagi spesies yang berbeza, pasang surut air, keadaan cahaya bulan, kesan perubahan musim, tumbuhan perumah, waktu kemuncak kerlipan dan lain - lain pengaruh.