

LATA JARUM

BIODIVERSITY RICHNESS & INCONCEIVABLE ENVIRONMENTS



Tukimat Lihan
Haja Maideen Kader Maideen
Siti Norhafizah Ahmad Tarmidzi

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Contents

List of Tables and Figures ...7

Preface ...13

- Chapter 1 **Lata Jarum Recreational Forest ...15**
Tukimat Lihan, Haja Maideen Kader Maideen & Siti Norhafizah Ahmad Tarmidzi
- Chapter 2 **Chemical Characteristics of the Soil ...18**
Sahibin Abd. Rahim, Wan Mohd. Razi Idris, Tukimat Lihan, Zulfahmi Ali Rahman, Jumaat Adam & Nur Nabihah Hamim
- Chapter 3 **Water Quality and Hydrology ...30**
Mohd. Ekhwan Toriman, Muhammad Barzani Gasim, Mohd Khairul Amri Kamarudin, Pan Ia Lun & Nor Azlina Abd Aziz
- Chapter 4 **The Hydrodynamics of Sungai Dong ...38**
Pan Ia Lun, Mohd Khairul Amri Kamarudin, Mohd. Ekhwan Toriman & Muhammad Barzani Gasim
- Chapter 5 **Biomimetics ...46**
Matin, T.R., Damghanian, M., Jumaat Haji Adam & Gebeshuber, I.C.
- Chapter 6 **Mosses ...55**
Nik Norhazrina Nik Mohd Kamil, Po Siew Pheng, Lee Gaik Ee, Nur Syazwana Munzani, Aisyah Munirah Abd Rahman & Haja Maideen Kader Maideen
- Chapter 7 **Ferns and Lycophytes ...71**
Haja Maideen Kader Maideen, Nurulhidayah Mat Muni, Nur Aliah Mohamad Khaduwi & Nik Norhazrina Nik Mohd Kamil
- Chapter 8 **Antibacterial Activities of Etlingera Extracts ...76**
Sumaia M.M. Bakoush, Jumaat Haji Adam, Wan Yaacob Wan Ahmad, Mohd Afiq Aizat Juhari & Siti Norhafizah Ahmad Tarmidzi

Chapter 9	Zingiberales ...87 <i>Meekiong Kalu & Lim Chong Keat</i>
Chapter 10	Rafflesia ...92 <i>Jumaat Haji Adam, Mohd Afiq Aizat Juhari, Nik Nadira Nik Ariff, Nor Azilah Abdul Wahab, Mohd. Paiz Kamarudin & Wan Kiew Lian</i>
Chapter 11	Tree Species ...101 <i>Ahmad Fitri Zohari, Muhammad Azmil Abdul Razak, Noor Yuhanis Abdul Aziz, Noor Akmal Abdul Wahab & Wan Juliana Wan Ahmad</i>
Chapter 12	Specie Composition, Diversity and Above-ground Biomass of the Tree Community ...113 <i>Muhammad Azmil Abdul Razak, Ahmad Fitri Zohari & Wan Juliana Wan Ahmad</i>
Chapter 13	Braconidae ...133 <i>Salmah Yaakop, S. & Idris Abd. Ghani</i>
Chapter 14	Butterflies ...140 <i>Norela Sulaiman, Aliadi Mohd Tahir, Sophia Fuzya Faezah Fuzi & Maimon Abdullah</i>
Chapter 15	Moths ...149 <i>Norela Sulaiman, & Aliadi Mohd Tahir</i>
Chapter 16	Mosquitoes ...157 <i>Norela Sulaiman, Nurhafizah Baharudin, Ng Mun Yee & Maimon Abdullah</i>
	<i>References ...165</i>
	<i>List of Contributors ...185</i>
	<i>Index ...195</i>

Preface

This book explores the physical environment and biological diversity at the Lata Jarum Recreational Forest, Ulu Dong, Raub, Pahang. The 16 chapters presented are based on an expedition to the area from 16 to 21 November 2009. This book is a pioneering research project on the physical environment and biodiversity of this unique lowland forest which is home to the largest flower in the world, the *Rafflesia*. The results cover three major disciplines which include the physical environment, the floras, and the fauna. The physical environment section covers biomimetics, nutrients in the soil, water quality and the hydrology of the forest while the biodiversity section explores the flora and fauna in the area. A checklist of the lower plants comprising mosses and ferns is presented. For the higher plants, notable gingers and their antibacterial activities were noted together with the species composition, diversity and above-ground biomass. The section on the faunae covered only the diversity of insects found.

Contributors of this book comprise researchers from the Fraser's Hill Research Centre, Faculty of Science and Technology, Universiti Kebangsaan Malaysia (UKM), Institute of Microengineering and Nanoelectronics UKM, Department of Landscape Architecture, Kuliyyah of Architecture and Environmental Design, International Islamic University Malaysia (IIUM), Department of Plant Science and Environmental Ecology, Faculty of Resource Science and Technology, Universiti Malaysia Sarawak (UniMAS), and Pusat Asasi, Universiti Teknologi MARA (UiTM). The involvement of the Environmental Health Research Group UKM, School of Environmental and Natural Resources Sciences FST UKM, Forestry Department of Pahang and Raub District and Land Office, Pahang are gratefully acknowledged. Our appreciation also goes to the National University of Malaysia for the research grants provided. The publication of this book is made possible by financial support from the Malaysian government as channelled and administered by CRIM, Universiti Kebangsaan Malaysia. The financial support included several research grants namely FRGS/1/2014/ST03/UKM/01/1,

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Tukimat Lihan

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Lata Jarum: Biodiversity Richness and Inconceivable Environments is a collection of scientific papers written by experts who took part in the Scientific Expedition at Lata Jarum Recreational Forest, Ulu Dong, Raub from 16th to 21st November 2009. It is a preliminary scientific research on the physical and biodiversity of Lata Jarum and involved collaboration from different fields of expertise in Malaysia. This book emphasis on quantifying the variety, abundance and occurrence of taxa, antimicrobial activities in plants and biomimetics. There are also new records and new species of plants, *Rafflesia* spp. and *Scaphochlamys jarumensis*, which is unique to the area. The content provides knowledge and guidance for students especially in biology programmes, researchers, local community and stakeholders. The important scientific observation and discoveries in this area is virtually a treasure trove of biodiversity.

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