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BALEH — Heart of Sarawak's Wilderness

Edited by Mohd-Azlan, Aman & Das

Life from Headwaters to the Coast

BALEH

Heart of Sarawak's Wilderness

Edited by

Jayasilan Mohd-Azlan
Mohamad Irwan Aman
Indraneil Das

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BALEH NATIONAL PARK

The Baleh region is known for its rugged, unforgiving terrain. Along with a complex network of rivers it is a lost world of fabulous plant and animal life. The forests here harbour towering trees, with delicate orchids and ferns, and are home to countless other species of conservation importance and of endemic species.

It is important to create awareness on the links between biodiversity and the provision of these benefits to society. This is crucial, so that the State's biological resources are valued, protected and sustainably used for the needs of both the present and future generations.

This book draws its material from recent research and expeditions to the Baleh region. The rich illustrations reveal the breathtaking beauty of its landscape and its biodiversity for future visitors, be they researchers, administrators, students, or perhaps the daring naturalist. The geology chapter lays the foundation to the living diversity to be enumerated, with an account of the rugged and sometimes dangerous rivers and hidden rapids. The plant component showcases the unique orchids, rattans and the tree flora diversity. The zoological aspects of this book covers an array of taxa, both invertebrates (butterflies, dragonflies and stream macrofauna) and vertebrates (fishes, amphibians, reptiles, birds and mammals). The social dimensions are human use of natural resources in this region, from plants and animals, to more sustainable future use such as ecotourism.

These researches in the Baleh region of Sarawak would not have been possible if not for the generosity of Sarawak Energy Berhad, who awarded a grant to Universiti Malaysia Sarawak to explore the biodiversity in the lost world of Baleh and take part in the activities. We remain grateful to our University and Sarawak Energy Berhad for their support and generous collaboration.

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Jayasilan Mohd-Azlan earned his doctoral degree from Charles Darwin University for his work on mangrove avifauna of Australia. He is currently the Director of the Institute of Biodiversity and Environmental Conservation, Universiti Malaysia Sarawak.

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Front cover: *Homaloptera orthogoniata.* Photo: Tan Heok Hui
Half title: *Glyptothorax major.* Photo: Tan Heok Hui
Frontispiece: *Rubus* sp., berry. Photo: Chien C. Lee

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Human Dimensions

Photo: Chien C. Lee

WILD MUSHROOMS

Mohamad Hasnul Bolhassan, Rahah Mohamad Yakup* and *Heira Vanessa Nelson

Mushrooms are recognized for their ecological significance. The Baleh region of Sarawak, Malaysia, is a pristine and known biodiversity-rich area on Borneo, yet, its mushrooms had awaited exploration and study.

'Wood-decay' mushrooms are essential in decomposing woody debris derived from trees and other woody plants, representing most of the vegetation in forest ecosystems. Mushrooms of the Baleh region can be classified across four taxonomic orders. Nine families and 12 genera have been identified and recorded. Notably, the order Polyporales showed the highest number of species. Within the order Polyporales, the family Polyporaceae was the most dominant, with four species: *Microporus affinis, Microporus xanthopus, Favolus emerici* and *Trametes sanguinea*. *Ganoderma* sp. and *Microporus* sp. were frequently encountered. Wood-inhabiting mushrooms are an essential part of the forest ecosystem and play an important role in wood degradation.

Coprinus sp.


Microporus xanthopus


Favolus emerici


Ganoderma australe


Ganoderma sp.


Cymatoderma elegans

Trametes sanguinea

Favolaschia pustulosa

The Baleh region of Sarawak supports a fascinating world of mushrooms. The current inventory (see Checklist) contributes to our understanding of mushroom occurrence and increases recognition of Baleh's biological diversity.

Checklist

Macrofungi recorded at Baleh.

Order	Family	Scientific name
Polyporales	Fomitopsidaceae	*Fomitopsis feei* (Fr.) Kreisel (1971)
	Ganodermataceae	*Ganoderma australe* (Fr.) Pat. (1890)
	Meruliaceae	*Cymatoderma elegans* Jungh. (1840)
	Polyporaceae	*Microporus affinis* (Blume & T. Nees) Kuntze (1898)
		Microporus xanthopus (Fr.) Kuntze (1898)
		Favolus emerici (Berk. ex Cooke) Imazeki (1943)
		Trametes sanguinea (L.) Imazeki, (1943)
Russulales	Stereaceae	*Stereum ostrea* (Blume & T. Nees) Fr. (1838)
Pezizales	Sarcoscyphaceae	*Cookeina sulcipes* (Berk.) Kuntze (1891)
Agaricales	Agaricaceae	*Coprinus* sp.
	Marasmiaceae	*Favolaschia pustulosa* (Jungh.) Kuntze (1898)
	Omphalotaceae	*Marasmiellus candidus* (Fr.) Singer (1948)

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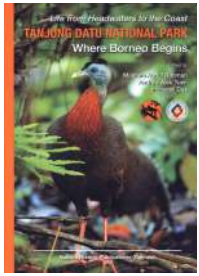
ABOUT THE SERIES

'Life from Headwaters to the Coast' is a series of illustrated guides to the biological diversity of the State of Sarawak, published by the Institute of Biodiversity and Environmental Conservation, Universiti Malaysia Sarawak (UNIMAS).

Starting in 2015 with Tanjung Datu National Park, with support from the Niche Research Grant Scheme of the Ministry of Higher Education, Government of Malaysia, the production of subsequent volumes in the series have been funded by governmental and non-governmental agencies.

The volumes cover geology, flora and fauna as well as sociological aspects of areas covered, and are written by specialists, including staff, students and associates of the Institute, the Faculty of Resource Science and Technology in UNIMAS and other experts when relevant, with naturalists, students, conservationists, administrators and decision-makers in mind.



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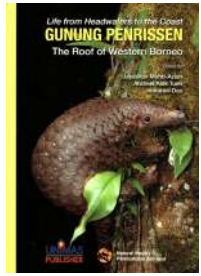

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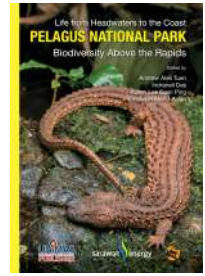

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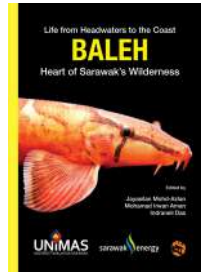

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