

THE SARAWAK MUSEUM JOURNAL

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SPECIAL ISSUE NO. 9

PROCEEDINGS OF THE
SEVENTH INTERNATIONAL
HORNBILL CONFERENCE
16-18 MAY 2017



HORNBILLS
Fly Free, Fly High

Guest Editors

Oswald Braken Tisen, Ipoi Datan & Jayasilan Mohd-Azlan



SARAWAK MUSEUM DEPARTMENT

HONORARY CURATORS, 2018

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Footnotes should be assembled at the end of the text. References should be given with the authors' names and dates of publication in the text and works listed at the end of the paper in alphabetical order of authors' names. Contributors should ensure that any drawings submitted are bold enough to remain legible after the reduction which is nearly always necessary; this applies particularly to lettering on illustrations.

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PREFACE

This volume of Conference Proceedings contains written versions of most of the contributions, which provide an opportunity for readers to engage with a selection of reviewed papers presented during the Seventh International Hornbill Conference (IHC2017).

For the very first time, the International Hornbill Conference was hosted by Sarawak, Malaysia. It took place at the Riverside Majestic Hotel, Kuching from May 16 – 18, 2017 with the theme of “*HORNBILLS: FLY FREE, FLY HIGH*”. This theme was chosen to truly represent the dreams of Sarawakians in achieving their vision to see hornbills flying free in the future. This conference was jointly organised by SARAWAK FORESTRY Corporation, Universiti Malaysia Sarawak (UNIMAS), Sarawak Convention Bureau (SCB), Cat City Holidays Sdn. Bhd. and Sarawak Energy Berhad (SEB) aiming to provide a platform for researchers from the host country, Malaysia and several other countries in the South and Southeast Asian regions as well as up to North America to share their research interests related to hornbill conservation.

Revolving around the theme, the conference had discussed current status, future trends and challenges pertaining to the conservation of hornbills worldwide. A total of 35 papers and 13 posters covering the following sub-themes were presented in the conference:-

- Sub-theme 1: Conservation Status of Hornbills – Threats, Trade and Population
- Sub-theme 2: Hornbill Biology and Husbandry
- Sub-theme 3: Habitat Fragmentation and Connectivity
- Sub-theme 4: Importance of Hornbills – Ecosystem, Culture, Tourism and Awareness

We would like to thank the Honourable Datuk Amar Haji Awang Tengah bin Ali Hasan, Deputy Chief Minister and Minister for Industrial and Entrepreneur Development who represented the Right Honourable Datuk Patinggi (Dr.)

Abang Haji Abdul Rahman Zohari bin Tun Datuk Abang Haji Openg, the Chief Minister of Sarawak to grace the opening ceremony. We would also like to thank Datu Ose Murang, the former Chairman of the Seventh International Hornbill Conference State Level Committee and Mr. Wong Ting Chung, former Chief Executive Officer of SARAWAK FORESTRY Corporation for their valuable advice and guidance. And also, to the organising committee for all the hard work to ensure the smooth running of the conference. Last but not least, we would like to extend our gratitude to the authors and presenters for their active participation during the conference.

The Guest Editors



Message from

*Chief Minister of Sarawak
Minister of Finance and Economic Planning
Minister of Urban Development and Natural
Resources*

I am delighted to welcome all our visitors to Sarawak and to the Seventh International Hornbill Conference. SELAMAT DATANG! It is most fitting that the conference is held here in the “Land of Hornbills”. The Hornbill is integral to the culture and folklore of our native communities. As a matter of fact, our State Emblem is itself the image of a hornbill.

The Sarawak Government is concerned that the sighting of hornbills in the State, as is elsewhere in the world, has been on the decline. We have therefore resolved to address the main cause of this decline, namely the loss or degradation of hornbill and other wildlife habitats. In this connection, we have targeted to establish at least 1 million hectares of Totally Protected Areas (TPAs) by the year 2020. So far, we have achieved 941,000 hectares of national parks, nature reserves and wildlife sanctuaries. Additionally, we will provide various means of support to SARAWAK FORESTRY Corporation and its RIMBA (Research for Intensified Management of Bio-rich Areas) SARAWAK programme so that work on biodiversity conservation could be carried out on a sustained basis.

I wish to commend SARAWAK FORESTRY Corporation and other members of the Organising Committee for having successfully brought this international conference to Sarawak. I hope that it will be a resounding success.

Thank you.

A handwritten signature in black ink, appearing to be 'Abang', written in a cursive style.

THE RIGHT HONOURABLE
DATUK PATINGGI (DR.) ABANG HAJI ABDUL RAHMAN ZOHARI
BIN TUN DATUK ABANG HAJI OPENG



Message from

Deputy State Secretary (Rural Transformation)

Chief Minister's Department

Organising Chairman,

Seventh International Hornbill Conference State Level

Committee

Hornbills play significant roles in the ecosystem. They are “umbrella” species and it follows that hornbill conservation will indirectly protect many other species that make up the ecological community. The importance to conserve this iconic species however extends well beyond that reason. Another important reason to conserve this species is its potential value as a Community-Based Ecotourism (CBET) product. It has been proven so such as in the case of hornbill watching and hornbill adoption in Thailand.

The hornbill is not a “celebrity” wildlife like the orangutan which readily attracts huge amount of funding for conservation. The State acknowledges this particular challenge faced by the implementing agencies and therefore, the Sarawak Government has stepped in to assist by providing funding to SARAWAK FORESTRY Corporation to implement the Sarawak Hornbill Conservation Programme. Additionally, we shall provide all necessary support to SARAWAK FORESTRY’s RIMBA (Research for Intensified Management of Bio-rich Areas) SARAWAK programme which caters to Research and Development (R&D) for biodiversity conservation undertaken in collaboration with renowned international experts and institutions.

It is my fervent hope that conference participants will put the knowledge gained into good practice to help improve hornbill conservation work back at your respective countries.

Thank you.

A handwritten signature in black ink, appearing to read 'Jaul Samion', with a long horizontal flourish underneath.

YANG BERBAHAGIA DATU JAUL SAMION



Message from

*Former Chief Executive Officer,
SARAWAK FORESTRY Corporation Advisor,
Seventh International Hornbill Conference Working
Committee*

I am grateful for this opportunity to contribute to this conference proceedings. I am also grateful to members of the Working Committee from SARAWAK FORESTRY Corporation, Universiti Malaysia Sarawak (UNIMAS), Sarawak Convention Bureau and Cat City Holidays Sdn. Bhd. who have worked tirelessly to make this Seventh International Hornbill Conference a reality.

I cannot help but share here the exciting prospects of SARAWAK FORESTRY Corporation embarking on a major undertaking on the conservation of hornbills in Sarawak. If all goes well, our biologists would soon be working closely with hornbill experts from Kasetsart University and the Hornbill Research Foundation of Thailand to carry out a wide range of studies on hornbills such as population distribution, food trees, breeding grounds, nesting behaviour, tree phenology, etc. These studies would be carried out at bio-rich areas of Sarawak including Lanjak Entimau Wildlife Sanctuary and Tanjung Datu National Park.

May the hornbills of Sarawak continue to Fly Free, Fly High!

Thank you.

A handwritten signature in black ink, appearing to read 'Wong Ting Chung'. The signature is fluid and cursive, with a long horizontal stroke at the beginning and a large loop at the end.

YANG BERBAHAGIA MR. WONG TING CHUNG