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*Palawan Rainforest*



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# AMPHIBIANS OF WESTERN SARAWAK (BORNEO)



Indraneil Das, Yong Min Pui, Sing-Tyan Pang, Taha bin Wahab  
Suhaili Mokhtar, Stefan T. Hertwig, Alexander Haas and Ulmar Grafe



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#### Front Cover

*Kurixalus appendiculatus* (top)  
*Rhacophorus nigropalmatus* (centre, left)  
*Gastrophrynoides borneensis* (centre, right)  
*Megophrys nasuta* (bottom, left)  
*Philautus macroscelis* (bottom, right)  
All photos: Pui Yong Min

#### Back Cover

QR codes of calls of *Pulchrana baramica*  
(top: Indraneil Das) and *Ansonia latidisca*  
(bottom: Ong Jia Jet).

#### Concept and Design

Pui Yong Min & Indraneil Das

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# **Amphibians of Western Sarawak (Borneo)**

*by*

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# Introduction

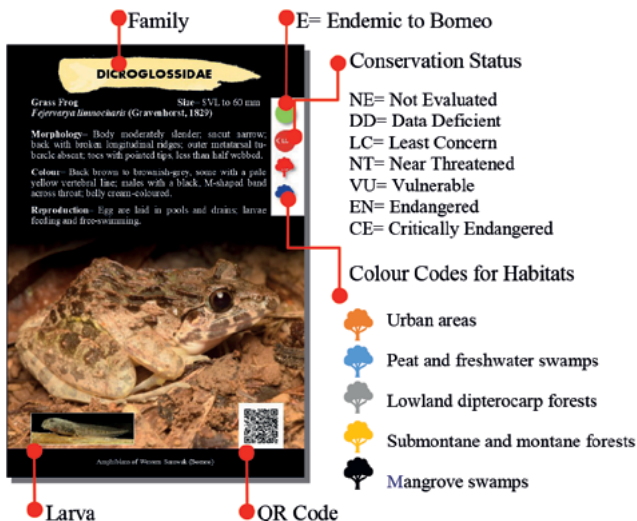
**Western Sarawak** is situated on north-western Borneo, that includes the drainages of Sungei Sarawak, Sg. Sadong and Sg. Lupar, and their respective headwaters. The primary natural vegetation type represented is the mixed dipterocarp forest, although a number of other vegetation can be seen, from coastal forests and mangroves to *Kerangas* (Bornean heath forest) to montane forests, many at different stages of regeneration. The geology of the region is as varied, from sandstone to limestone regions, besides some areas of granite.



We enumerated amphibian diversity at Tanjung Datu National Park (1), Gunung Gading National Park (2), Kubah National Park (3), Gunung Santubong National Park (4), Bako National Park (5), Maludam National Park (6), Sama Jaya Nature Reserve, Deded Krian National Park, the Wind and Fairy Caves National Parks, Semenggoh Wildlife Centre and Gunung Pueh National Park. Unprotected areas where we conducted amphibian inventories include Kota Samarahan, the Kuching region, Gunung Gumbang and Gunung Penrissen.

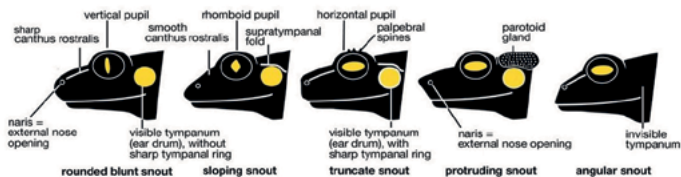
This field guide to the amphibians of western Sarawak is based on our inventories, and the published works of others. The cut-off date for the checklist was 29 March 2019. A total of 95 species are described in this work, representing over half the described amphibian fauna of Borneo.

For all species, we provide a common (English) name, the current scientific name and authority, size information (maximum snout-vent length, SVL, recorded), brief description of external morphology and colouration of the adult stages relevant to its identification, reproduction (in terms of where breeding takes place and the nature of its larval stages), conservation status, according to the most recent version of the IUCN Red List (version 2019–1, accessed 29 March 2019), and finally, additional remarks if needed. For each species, we present an image of an adult, and when available, that of a larva, that is not reproduced to scale, in order to fit the format of the work. Further information can be obtained from the references listed at the end of this field guide. A Quick Response (QR) code for each species is provided, that links it to “Frogs of Borneo” species page. SVL = snout-vent length.

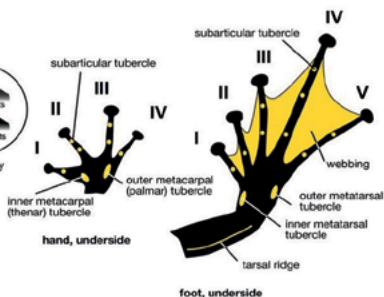




## BODY PART OF FOGS AND TOADS



**habitus** = general body appearance and proportions



Graphic image by Alexander Haas and Pia Dublics

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