A Guide to the
Frogs
of Lambir Hills National Park

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A GUIDE TO THE FROGS OF LAMBIR HILLS NATIONAL PARK

by

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2016
Lambir Hills National Park (Park Headquarters at 04°20’N, 113°50’E) was established in 1975 to protect a mostly lowland landscape with rolling hills that reach 465 metres asl at the summit of Bukit Lambir, in northern Sarawak. The Park encompasses an area of 6,949 hectares of mixed-dipterocarp forests and Bornean heath forests (local name: Kerangos). The area is known to be one of the most botanically diverse regions in the world, with 1,175 tree species identified from a single 52 hectare plot.

The Park is the site of an intense international research project, focusing on the ecology of these forests. Information on the animal diversity of the Park is scanty, and we present here a simple field guide to the amphibian fauna of Lambir Hills National Park, based on our inventories since 1992, and those reported in the literature.

This little field guide introduces the participants of the 5th International Bornean Frog Race, being held on 30 April 2016 at Lambir Hills National Park, Sarawak, East Malaysia (Borneo) to the frog fauna of the Park. It is based on our work in the Park, spanning nearly two decades, and lists all species of amphibians known thus far. Larval stages have not been included in this edition.

For every species, we provide a common (English) name, the current scientific name and authority and date, size and conservation status. Note that the images are not to scale.
**Family BUFONIDAE**

1. *Ansonia longidigitata* Inger, 1960
   - Long-fingered Slender Toad, SVL to 65 mm
2. *Ansonia spinulifer* (Mocquard, 1890)
   - Spiny Slender Frog, SVL to 45 mm
3. *Duttaphrynus melanostictus* (Schneider, 1799)
   - Common Asian Toad, SVL to 115 mm
4. *Sagopryrus divergens* (Peters, 1871)
   - Crested Toad, SVL to 55 mm

**True Toads**

5. *Pelophryne saravacensis* Inger & Stuching, 2009
6. Sarawak Dwarf Toad, SVL to 22 mm
7. *Pelophryne signata* (Boulenger, 1894)
   - Short-legged Dwarf Toad, SVL to 17.6 mm
8. *Phrynobates asper* (Gravenhorst, 1829)
   - River Toad, SVL to 180 mm
   - Giant River Toad, SVL to 215 mm
10. *Hemiphractus hessii* (Boulenger, 1892)
    - Brown Tree Toad, SVL to 105 mm
Family CERATOBATRACHIDAE

1. Aloula baluensis (Boulenger, 1886)
   - Dwarf Mountain Frog, SVL to 40 mm

Family DICROGLOSSIDAE

True Frogs I

1. Fijerovayla limnocharis (Gravenhorst, 1829)
   - Grass Frog, SVL to 60 mm
2. Limnonectes conspicillatus (Günther, 1872)
   - Rivulet Frog, SVL to 74 mm
3. Limnonectes ingi (Kiew, 1978)
   - Greater Swamp Frog, SVL to 132 mm
4. Limnonectes kuhl (Tschari, 1838)
   - Kuhl's Creek Frog, SVL to 69 mm

Family DICROGLOSSIDAE

5. Limnonectes leporinus (Andersson, 1923)
6. Limnonectes melanostictus (Kiew, 1984)
7. Limnonectes palavaneuris (Boulenger, 1884)
8. Smooth Guardian Frog, SVL to 40 mm
9. Limnonectes paramacronius (Inger, 1966)
10. Masked Frog, SVL to 75 mm
11. Ocziprogya baluensis (Boulenger, 1890)
12. Spotted Frog, SVL to 35 mm
13. Ocziprogya haemert (Günther, 1859)
14. Yellow-bellied Puddle Frog, SVL to 48 mm

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**Family MEGOPHYIDAE**

**Litter Frogs**

2. *Dring's Dwarf Litter Frog*, SVL to 19 mm
3. *Leptobrachium abbotti* (Cochran, 1926)
4. *Lowland Litter Frog*, SVL to 95 mm
5. *Leptodactylus gracilis* (Günther, 1872)
6. *Sarawak Slender Litter Frog*, SVL to 50 mm
7. *Megophrys nasuta* (Schlegel, 1858)
8. *Bornean Horned Toad*, SVL > 125 mm

**Family MICROHYLIDAE**

**Narrow-mouthed Frogs**

1. *Chaperina fusca* Mocquard, 1892
2. *Saffron-bellied Frog*, SVL to 26 mm
3. *Kalaphrynus heterochelus* (Boyle, 1900)
4. *Variable Sticky Frog*, SVL to 33 mm
5. *Kalaphrynus intermedius* Inger, 1966
6. *Intermediate Sticky Frog*, SVL to 41 mm
8. *Bornean Sticky Frog*, SVL to 60 mm

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Family MICROHYLIDAE

5. *Metaphrynella sundana* (Peters, 1867)
8. *Least Narrow-mouthed Frog*, Size to 15 mm
10. *Pothole Narrow-mouthed Frog*, Size to 18 mm

Family RANIDAE

1. *Aburana lactuca* (Peters, 1871)
2. *Mahogany Frog*, SVL to 60 mm
3. *Chalcorana ranae* (Peters, 1871)
4. *White-lipped Frog*, SVL to 60 mm
5. *Ilyanura crythraea* (Schlegel, 1827)
6. *Green Paddy Frog*, SVL to 75 mm
7. *Odorrana fasciata* (Boulenger, 1891)
8. *Poisonous Rock Frog*, SVL to 100 mm

True Frogs II
Family RANIDAE

5  Pseudophryne barunica (Boettger, 1901)
6  Brown Marsh Frog, SVL to 67 mm
7  Pseudophryne glandulosa (Boulenger, 1882)
8  Rough-sided Frog, SVL to 93 mm
9  Pseudophryne picturata (Boulenger, 1920)
10 Spotted Stream Frog, SVL to 68 mm
11 Pseudophryne signata (Günther, 1872)
12 Striped Stream Frog, SVL to 68 mm
13 Stumarus gottii (Günther, 1858)
14 Black-spotted Rock Frog, SVL to 55 mm

True Frogs II

Family RHACOPHORIDAE

1  Fejekula kajun (Dring, 1984)
2  White-eared Tree Frog, SVL to 23 mm
3  Kaikoura appendiculata (Günther, 1890)
4  Frilled Tree Frog, SVL to 50 mm
5  Philautus textus Dring, 1987
6  Obscure Bush Frog, SVL to 27 mm
7  Polypediates colletti (Boulenger, 1890)
8  Collett’s Tree Frog, SVL to 78 mm
Family RHACOPHORIDAE

Tree Frogs

5. *Polypedates lecompti* (Gravenhorst, 1829)
6. *Polypedates macrotis* (Boulenger, 1891)
7. *Polypedates otilopius* (Boulenger, 1891)
8. *Polypedates fasciatus* Boulenger, 1892
9. *Rhabdophorus sibilis* Boulenger, 1895
11. *Rhabdophorus nigropalmatus* Boulenger, 1895
12. *Wallace's Flying Frog*, SVL to 100 mm
13. *Rhabdophorus parda* (Günther, 1859)
14. *Harlequin Tree Frog*, SVL to 75 mm
15. *Theoderma horridum* (Boulenger, 1903)
16. *Cinnamon Frog*, SVL to 35 mm

Brown Tree Frog, SVL to 70 mm

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Acknowledgements

Foremost, we record here our appreciation for the interest in the International Bornane Frog Race shown by Datuk Ick Pahon anak Jopik, Permanent Secretary at the Ministry of Tourism Sarawak, and for the generous support received from his Ministry.

We are grateful for permission and facilities to conduct field work in Sarawak, provided by the Director and Controller of National Parks and Nature Reserves, Sarawak Forest Department. We thank Oswald Braken Tisen for advice on permitting and logistics and our colleagues at the Lambir Hills National Park, especially Kamal Krishnan Abdulllah.

We thank our respective institutions, the Institute of Biodiversity and Environmental Conservation, Universiti Malaysia Sarawak, Sarawak Forestry Corporation, Center of Natural History, Zoological Museum Hamburg, Naturhistorisches Museum der Burgergemeinde Bern and Universiti Brunei Darussalam, for supporting our research on the frogs of Sarawak.

A large number of our colleagues and students helped with data collection over the years. For assistance with this and for helping run the past four editions of the International Bornane Frog Race, we are grateful to Andrew Alek Tisen, Gabriel Tonga Noweg, Datuk Chan Chew Lun, Ramlah Zainuddin, Hans Hazebroek, Cynthia Labasto, Ch'ien Lee, Pearl Le, Zulkalnain Zainal Abidin, Mohamad Faizuan Mat, Sylvester Wieling Lussem, Leong Tze Ming, Kelvin Kueh Boon Hee, Jean-Marc Hervo, David Bickford, Robin Moore, Suahlii Mokhtar, Rahim Bugo, Ong Jia Jet, Meri bt Sabas, Jangkar Grimang, Ick Wodell Ick Pahon, Rahah Mohd. Yakup, Ketty Daun, Siti Nor Boizurah Abdul Malik Chang, Cecilia Emang Ajeng, Matthew Jenang, Anthony Pine, Cindy Peter, Pasey Lisus, Sauyoh Su'atb, Mohd. Hasri Al Haefiz bin Haba, Felicia Anthony Reyap, Chaplin Iba, Adi Shabran Mohd. Rizalda, Mohd. Faisal Wahab, Lou Wei Cheong, Jenny Ngeian, Anna Norlita bt Zulkifli Poh, Keay Yee Chen, Jessica Choi Swan Jue, Luiza Dyu Setia, Erdiana Odan, Khatijah bt Ismail, Ogory Kishen Megas, Attiqah Fadzliiah bt Sapian, Anita Muli, Shahrul Affendi bin Ishak, Sydney Thomas, Tunmise Otubo Ayode, Haiman Bawi, Mohd. Khairulazam bin Sulaiman, Abang Azell Funsuri bin Abang Abdulllah, Nurilipano Hussaini, Yap Fook Kiong, Sib Shoshida Kamel, Afiq Nashriq bin Mohamed Yusof, Mohd. Saifullah bin Abdulllah, Chang Hui Ling, Norajilah bt Azis, Nur Hijayoh bt Ghazali, Nazatulnisa bt Yusuf, Nur Alhira b Mohamad, Nahtafiz bin Hamzah, Mohd. Syakir bin Razak, Samuel Shonleben and Hans Brewer. Finally, we are grateful to Foresco Sarawak Sdn. Bhd. for supporting the printing of this publication.


The International Bornean Frog Race 2016

1. The welfare of frogs is primary to the goals and objectives of the Race. The following rules were formulated to ensure that no frogs are harmed during the event.
2. The Race is open to all physically fit persons. However, the general public can attend the exhibition and talks.
3. All participants have to register online in order to obtain an official entry to the Frog Race.
4. The Frog Race will start with flag-off at 7:00 pm and end at 9:00 pm, on 30 April 2016. All Race participants are required to submit their images to the Image Receiving desk at Lambir HQ by 9PM.
5. Race participants will have to wear the official Frog Race 2016 T-shirt, and wear numbered arm-bands (both supplied by the organisers to registered participants).
6. Participants should make every attempt not to disturb amphibians, such as placing strong light sources too close to the eyes of frogs. Such behaviour causes stress to frogs, and may cause temporary or permanent damage to their eyesight and in addition, lead to stressed frogs being photographed. Images showing such frogs will not be accepted for the competition by our judges.
7. One winner will be chosen for the following two categories:
   a) Most number of amphibian species found, and
   b) Rarest amphibian found
8. Three winners will be chosen for the best amphibian (including frogs, toads, caecilians and tadpoles or larval amphibians) photos (in DSLR, compact camera & mobile phone). In this category, each participant is eligible to enter only one category (DSLR, compact camera & mobile phone). For compact camera & mobile phone categories, only one winner will be chosen.
9. Participants must submit their results at 9:00 pm. Late submissions will be disqualified.
10. The judges’ decision on each photo contest category is final.
11. Race participants are allowed to take photos only along the pre-designated trail at Lambir Hills. Volunteers along the trail will ensure both the safety of the Race participants and of the frogs. Excess disturbance (e.g., usage of flashes beyond acceptable quantum, currently put at three; handling of frogs or destruction of vegetation and other habitats) will be noted for transmission to the judges.
12. All participants will receive a certificate of participation from the organizers.
13. Registration fees are required to participate in the Race, payable in cash or online payment system. Payment is non-refundable.

*Please refer to Registration Form.

Do's and Don'ts of the International Bornean Frog Race 2016

Do's
- Leave footprints, not litter
- Bring a flashlight or a headlamp
- Bring a raincoat
- Bring enough drinking water

Don'ts
- Harm frogs, or any other wildlife
- Disturb vegetation and other habitats
- Stray from the main trail
- Make unnecessary noise

The International Bornean Frog Race 2016 Judging Criteria

1. Most number of amphibian species found
   (the winner of this category will be the participant who photographically documents the most number of amphibian species)
2. Rarest amphibian found
   (the winner of this category will be the participant who photographs the rarest amphibian, as determined by the judges)
3. Best amphibian photo taken
   (For DSLR camera, three winners will be judged according to the following criteria below. Only one entry per participant allowed. For compact camera and mobile phone categories, only one winner will be chosen).

“Best Photo” Judging Criteria

1. How technically correct is the photo? (20 marks)
   Are the following the best they can be? Focus, sharpness, detail, depth of field, colour, brightness, contrast, saturation, usage of light.
2. Subject matter/Content (20 marks)
   How well does it follow within the Bornean Frog Race objectives?
3. Creativity (20 marks)
   Is the frog shot from an unusual and attractive perspective?
4. Composition (20 marks)
   Where does our eye lead to in the photograph? Is it creating the visual impact it should?
5. Do I like this photograph? (20 marks)
   Total score: 100 marks
THE INSTITUTE OF BIODIVERSITY AND ENVIRONMENTAL CONSERVATION, within Universiti Malaysia Sarawak, was set up in 1994 as one of the founding institutions within the university, with the purpose of promoting research in two niche areas- tropical biodiversity and environmental conservation. Its teaching and research programmes are structured at the masters, doctoral and postdoctoral levels.

SARAWAK FORESTRY has been established by the Sarawak State Government to position Sarawak at the forefront of sustainable forest management and conservation, as outlined in the Sarawak Forestry Corporation Ordinance, approved by the State Legislative Assembly in 1995. SARAWAK FORESTRY's functions are governed by four major ordinances, namely the Sarawak Forestry Corporation Ordinance, 1995; the Forest Ordinance, 1998; the National Park and Nature Reserve Ordinance, 1998; and the Wild Life Protection Ordinance, 1998.
Kalophrynus sp.