

PELAGUS NATIONAL PARK

Biodiversity Above the Rapids





Life from Headwaters to the Coast

PELAGUS NATIONAL PARK

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Edited by

Andrew Alek Tuen, Indraneil Das
Karen Lee Suan Ping and Jayasilan Mohd-Azlan



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AMPHIBIANS

Pui Yong Min, Mohamad Paisal, Adi Shabrani and Indraneil Das

A total of 8,151 species of amphibians have been described globally, with 6,794 (84%) assessed under the IUCN Red List of 2020, of which 2,200 (41%) have been classified as ‘Threatened’. Of the approximately 190 species now known from Borneo, 130 (68%) are endemic to the island and 83 species are ‘Threatened’, representing nearly half of the known amphibian fauna. These figures are, of course, conservative estimates, as many species have yet to be evaluated due to lack of information on threats, and limited knowledge on species distributions, which are often biased towards accessible areas. The insufficiency in the current knowledge on Bornean frogs highlights the need for species inventories, especially in less accessible areas.

Limited literature exists on the herpetofauna of the Pelagus region. This chapter provides an updated inventory of the amphibians found in the Pelagus National Park, based on results of multiple surveys conducted between 2014 to 2015, and those recorded previously. Standardised visual and encounter surveys were conducted between 1900 to 2200 hours along streams and adjacent areas, extending from the bank of the river which demarcates the Park’s western boundary, up to the ridge-top along the Bidai Trail, north-west of the site of the former resort within the Park. In addition, an automated sound recording device (Song Meter™ Model SM2+; Wildlife Acoustics Inc.) was established circa 2 m from the stream bank, to remotely record frog vocalization patterns. The sampling regime of 5 min (recording time frame) every 15 min (recording time gap) resulted in 2,700 sampling intervals and 13,500 total minutes of recording time.

The current species inventory for Pelagus National Park documents 39 species, representing 22 genera and seven families. These constitute 21% of the amphibian species recorded on Borneo, 21 of which are endemic to the island. Two of these – the Wallace’s Flying Frog (*Rhacophorus nigropalmatus*) and Crested Toad (*Ingerophrynus divergens*) – were solely detected on the automated sound recorder. A species of conservation importance, the Lesser Rock Skipper (*Staurois parvus*), listed as ‘Vulnerable’ in the IUCN Red List, was found on a sapling along the stream bank. Three ‘Near Threatened’ species, including the Peat Swamp Frog (*Limnonectes malesianus*), the Serasin Dwarf Litter Frog (*Leptobrachella serasanae*) and Cinnamon Frog (*Nytixalus pictus*) were also recorded from the site.

BUFONIDAE



Fig. 1. Representative species of bufonids found in Pelagus National Park. (a) *Ansonia leptopus*; (b) *Ansonia longidigita*; (c) *Rentapia hosii*; (d) *Ingerophrynus divergens*; (e) *Phrynomoides asper*; (f) *Ansonia minuta*.

AMPHIBIANS

A Checklist of Amphibians

IUCN Status (IUCN, 2020): NE – Not Evaluated, LC – Least Concern, NT – Near Threatened, VU – Vulnerable. *Detected by automated recording device.

Species	Common Name	IUCN Status	Endemism
BUFONIDAE			
<i>Ansonia leptopus</i> (Günther, 1872)	Brown Slender Toad	LC	Endemic
<i>Ansonia longidigita</i> Inger, 1960	Long-fingered Slender Toad	LC	Endemic
<i>Ansonia minuta</i> Inger, 1960	Dwarf Slender Toad	LC	Endemic
<i>Ingerophrynus divergens</i> (Peters, 1871) *	Forest Toad	LC	-
<i>Pelophryne</i> sp.	Dwarf Toad	NE	Endemic
<i>Phrynoidis asper</i> (Gravenhorst, 1829)	River Toad	LC	-
<i>Rentapia hosii</i> (Boulenger, 1892)	Brown Tree Toad	LC	-
CERATOBATRACHIDAE			
<i>Alcalus</i> cf. <i>baluensis</i> (Boulenger, 1896)	Kinabalu Dwarf Mountain Frog	LC	Endemic
DICROGLOSSIDAE			
<i>Limnonectes ibanorum</i> (Inger, 1964)	Rough-backed River Frog	LC	Endemic
<i>Limnonectes kuhlii</i> (Tschudi, 1838)	Kuhl's Creek Frogs	LC	-
<i>Limnonectes leporinus</i> (Andersson, 1923)	Giant River Frog	LC	Endemic
<i>Limnonectes malesianus</i> (Kiew, 1984)	Peat Swamp Frog	NT	-
<i>Limnonectes</i> sp.	Creek Frog	NE	Endemic
Megophryidae			
<i>Leptobrachella mjobergi</i> Smith, 1925	Mjoberg's Dwarf Litter Frog	LC	Endemic
<i>Leptobrachella juliandringi</i> Eto, Matsui & Nishikawa, 2015	Dring's Dwarf Litter Frog	NE	Endemic
<i>Leptobrachella parva</i> Dring, 1984	Rough-sided Dwarf Litter Frog	LC	Endemic
<i>Leptobrachella serasanae</i> Dring, 1983	Serasin Dwarf Litter Frog	NT	-
<i>Leptobrachium abboti</i> (Cochran, 1926)	Lowland Litter Frog	LC	Endemic

AMPHIBIANS

Species	Common Name	IUCN Status	Endemism
<i>Leptolalax gracilis</i> (Günther, 1872)	Sarawak Slender Litter Frog	LC	Endemic
<i>Megophrys edwardinae</i> Inger, 1989	Edwardine's Horned Frog	LC	Endemic
<i>Megophrys nasuta</i> (Schlegel, 1858)	Bornean Horned Frog	LC	-
MICROHYLIDAE			
<i>Chaperina fusca</i> Mocquard, 1892	Saffron-bellied Frog	LC	-
<i>Nanohyla petrigena</i> (Inger & Frogner, 1979)	Kapit Rice Frog	LC	Endemic
RANIDAE			
<i>Chalcorana raniceps</i> (Peters, 1871)	White-lipped Frog	LC	-
<i>Meristogenys phaeomerus</i> (Inger and Gritis, 1983)	Kapit Torrent Frog	LC	Endemic
<i>Pulchrana picturata</i> (Boulenger, 1920)	Spotted Stream Frog	LC	-
<i>Pulchrana signata</i> (Günther, 1872)	Striped Stream Frog	LC	-
<i>Staurois guttatus</i> (Günther, 1858)	Black-spotted Rock Frog	LC	Endemic
<i>Staurois parvus</i> Inger and Haile, 1959	Lesser Rock Skipper	VU	Endemic
<i>Staurois tuberilinguis</i> Boulenger, 1918	Green Spotted Rock Skipper	LC	Endemic
RHACOPHORIDAE			
<i>Kurixalus chaseni</i> (Smith, 1924)	Friiled Tree Frog	LC	-
<i>Leptomantis gauni</i> (Inger, 1966)	Short-nosed Tree Frog	LC	Endemic
<i>Nyctixalus pictus</i> (Peters, 1871)	Cinnamon Frog	NT	-
<i>Philautus hosii</i> (Boulenger, 1895)	Hose's Bush Frog	LC	Endemic
<i>Philautus tectus</i> (Boulenger, 1895)	Obscure Bush Frog	LC	Endemic
<i>Polypedates leucomystax</i> (Gravenhorst, 1829)	Four-lined Tree Frog	LC	-
<i>Polypedates otilophus</i> (Boulenger, 1893)	File-eared Tree Frog	LC	-
<i>Rhacophorus nigropalmatus</i> Boulenger, 1895*	Wallace's Flying Frog	LC	-
<i>Rhacophorus pardalis</i> Günther, 1858	Harlequin Flying Frog	LC	-

MEGOPHRYIDAE



Fig. 3. Representative species of Megophryidae found in Pelagus National Park. (a) *Leptolalax gracilis*; (b) *Leptobrachium abbotti*; (c) *Megophrys nasuta*; (d) *Megophrys edwardinae*; (e) Near Threatened *Leptobrachella serasanae*; (f) *Leptobrachella mjobergi*.

RANIDAE

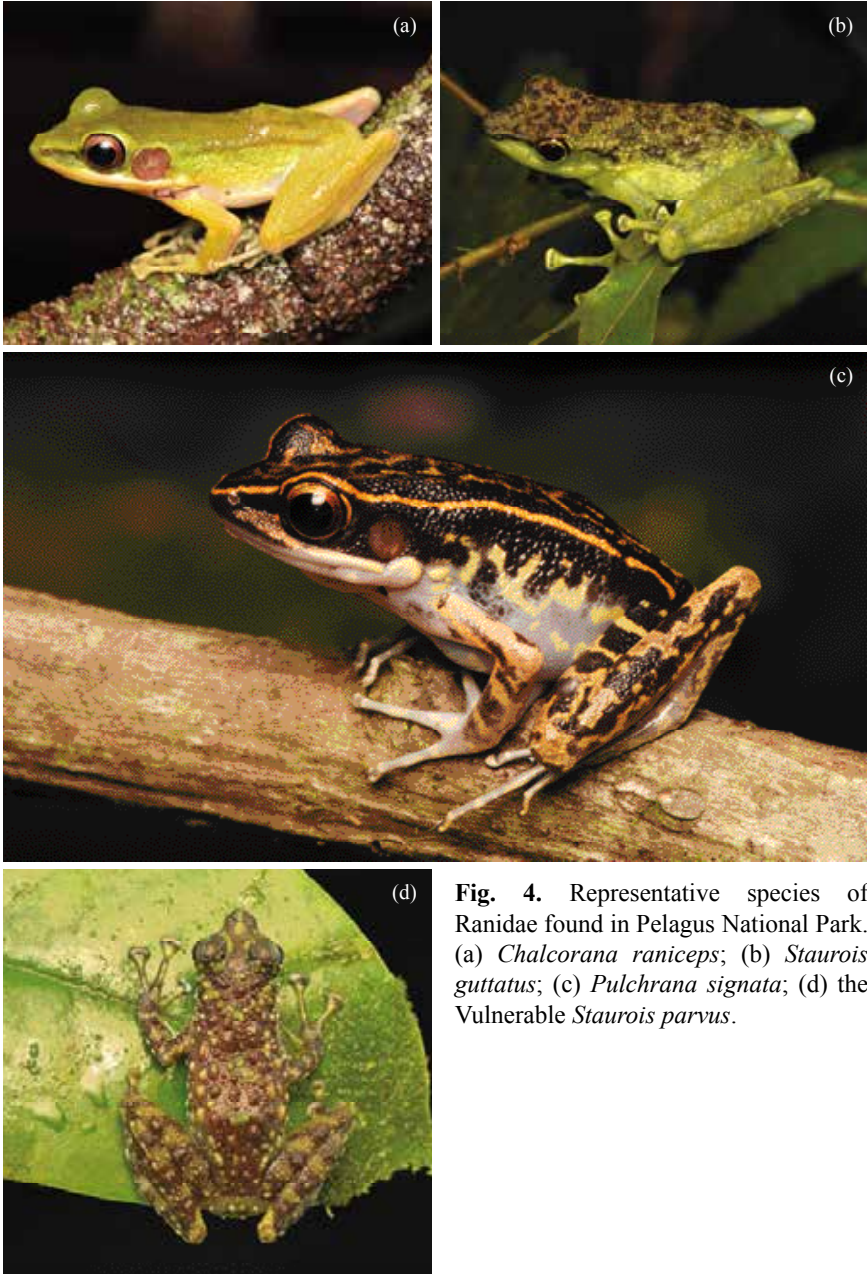


Fig. 4. Representative species of Ranidae found in Pelagus National Park. (a) *Chalcorana raniceps*; (b) *Staurois guttatus*; (c) *Pulchrana signata*; (d) the Vulnerable *Staurois parvus*.

RHACOPHORIDAE



Fig. 5. Representative species of Rhacophoridae found in Pelagus National Park. (a) *Kurixalus chaseni*; (b) *Nyctixalus pictus*; (c) *Polypedates leucomystax*; (d) *Polypedates ottilophus*; (e) *Philautus hosii*; (f) *Leptomantis gauni*; (g) *Rhacophorus pardalis*; (h) *Rhacophorus nigropalmatus*.