

A significant range extension for the Kinabalu Parachute Gecko, *Ptychozoon rhacophorus* (Boulenger, 1899) (Squamata: Gekkonidae) and a new state record from Sarawak, northwestern Borneo

Pui Yong Min¹ and Indraneil Das²

The genus *Ptychozoon* comprises arboreal geckos that are distributed over much of southeast Asia, primarily in moist tropical evergreen and semi-evergreen forests (Brown, 1999; Brown et al. 1997). At present, seven species are recognized under the genus: *Ptychozoon kuhli* Stejneger, 1902; *P. horsfieldii* (Gray, 1827); *P. lionotum* Annandale, 1905; *P. intermedium* Taylor, 1915; *P. rhacophorus* (Boulenger, 1899); *P. trinotaterra* Brown, 1999, and *P. nicobarensis* Das and Vijayakumar, 2009. Of these, three are confirmed as occurring in Borneo (Das, 2010)- *P. kuhli*, *P. horsfieldii* and *P. rhacophorus* (a fourth- *P. lionotum* has been reported from this island by Dring 1979 and Shinokawa et al., 2002, but these reports lack vouchered specimens and are consequently unconfirmed). Only *P. rhacophorus* is endemic to Borneo, and is the sole species from montane regions (Das, 2004).

The Kinabalu parachute gecko, *Ptychozoon rhacophorus*, was described from “Kadamaian River, Kina Balu, 2100 feet, North Borneo” (= Sungai Kadamaian, 640 m, 06° 22'N; 116° 26'E, Gunung Kinabalu National Park, Kota Belud District, Sabah, East Malaysia), holotype BMNH 1946.8.25.97, by Boulenger (1899). It has been recorded from Gunung Kinabalu National Park Headquarters, Ranau District (Malkmus et al., 2002, based on Sabah Park Zoological Museum specimens, SP 01120; 06008; 06071; see Das and Vijayakumar, 2009). This species apparently has a limited distribution range within the island (Fig. 1). Herein, we provide a new range extension, and the first record of *P. rhacophorus* from Sarawak state,

northwestern Borneo, as well as a first description of coloration in life.

During a field expedition on May 16, 2011 to Gunung Penrissen, Padawan (northwestern Borneo; 01.12°N, 110.21°E; 1,230 masl; Fig. 1), Sarawak state, East Malaysia, two gecko eggs was collected from the forest floor. The eggs were deposited as a near spherical pair, the hard shelled eggs fused to each other, and attached to the surface of a dry leaf. The eggs, that measured 10.0 x 10.8 mm and 9.99 x 10.3 mm, produced hatchlings 30.6 mm (SVL of both) and 20.0 and 21.4 mm (tail length) on 17 May 2011. Identification is based on the presence of the following combination of characters: sharp tapering tail; terminal tail-flap absent; spinose tubercles on dorsum; dorsum lacking dark bands; supranasals not in contact; absence of cutaneous expansion on sides of head (Fig. 2).



Figure 1. Localities from where *Ptychozoon rhacophorus* have been reported (•) and the new record for the state of Sarawak, Malaysia, Borneo (•)

Institute of Biodiversity and Environmental Conservation
Universiti Malaysia Sarawak, 94300, Kota Samarahan, Sarawak, Malaysia

¹pui8783ibec@gmail.com, ²idas@ibec.unimas.my

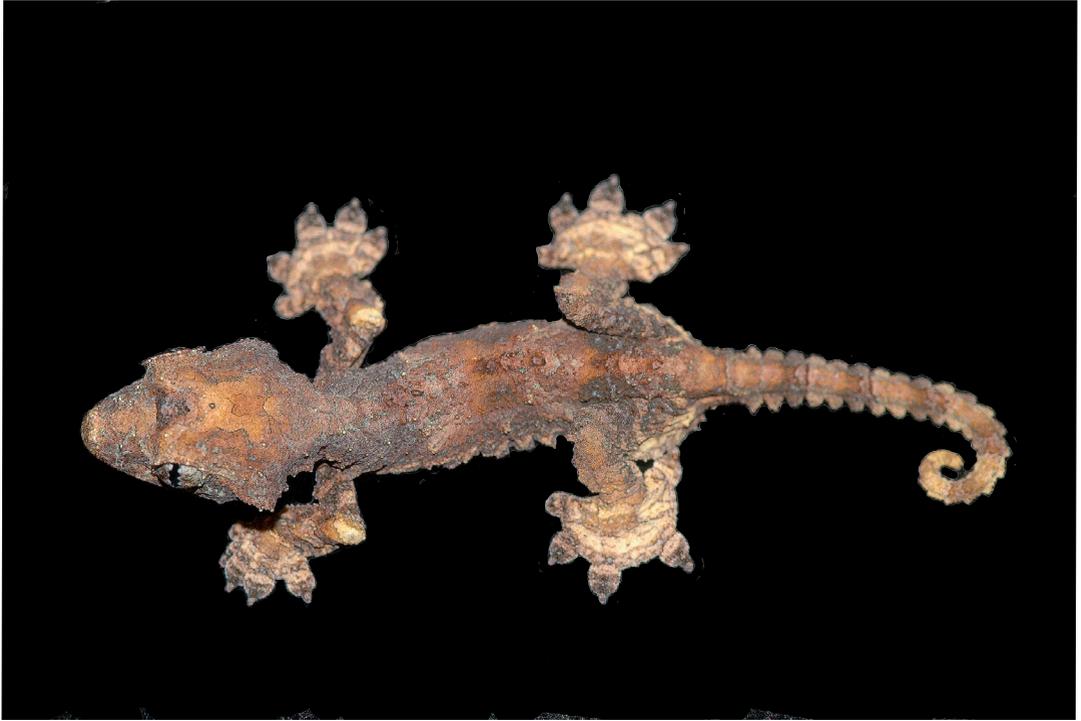


Figure 2. Dorsal view of a *Ptychozoon rhacophorus* specimen collected from Gunung Penrissen, Sarawak state, Borneo (UNIMAS P0500).

The specimens were later euthanized, fixed in 10% formalin, preserved in 70% ethanol, and deposited in the museum of IBEC, Universiti Malaysia Sarawak (UNIMAS P0500, P0501).

The new locality lies 763.7 km to the west of the Kinabalu Parks Headquarters locality and 770.9 km to the west of the Sungei Kedamaian locality (distances calculated using Movable Type Scripts; www.movable-type.co.uk/scripts/latlong.html), and suggest the occurrence of the species in intervening areas, especially in submontane habitats along the mountain chain running across northern Borneo.

Since the colouration in life of this poorly-known species remains unpublished, we provide here notes we took of both specimens in life, using the colour swatches of Smithe (1975; 1981). In life, forehead Cinnamon (#39), with a Grayish Olive (#43) chevron mark in interorbital region, and an irregular, oval blotch of the same colour posteriorly; centre of forehead Tawny (#38), edged with black; back of forehead variegated with Pearl Gray (#81); two irregular bands, paler than Pearl Gray (#81) in preocular region that fail to contact

each other on rostrum; other bands and bars of the same colour on labial and temporal regions, including some that form supralabial bars and radiating lines from orbit; iris silvery, with heavy suffusion of Drab (#27); pupil black; dorsum of body Cinnamon (#39), with darker and lighter areas, especially via a pattern created by irregular, pale bands across trunk; Hair Brown (#119A) laterally, especially on scapular and pelvic regions; tail dorsum Cinnamon (#39), with darker and lighter areas; throat Dark Brownish Olive (#129), with faint pale network; infralabial region paler; venter, including pectoral and abdominal region Dark Brownish Olive (#129), darker bars providing a stripe-like effect on belly; undersurface of tail Cinnamon (#39), with parallel dark stripes peripherally and a shorter dark one medially; manus and pes Grayish Olive (#43), with paler bands; a distinctive Cinnamon (#39) blotch on elbow; digit tips darker than rest of limbs. Colour in preservative, darker and more unicoloured, most subtle colours being lost after storage for a fortnight in alcohol, including the distinctive elbow patch.

Acknowledgements. This research was supported by a grant from Shell Chair (SRC/05/2010[01]) administered by the Institute of Biodiversity and Environmental Conservation, Universiti Malaysia Sarawak. For institutional support, we thank our Director, Andrew Alek Tuen, and colleagues- Isa Sait, Rahah Mohd Yakupand Mary Buloh. Special thanks must go also to Benard Tiang and Ramona Ngalih, of the Borneo Highlands Hornbill Golf & Jungle Club, who provided us logistic support. Finally, we are grateful to the Sarawak Forest Department for permission (permit number NCCD.907.4.4 (Jld.7)-38) to conduct field work.

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