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SHORT NOTES

Rediscovery and Redescription of *Tropidophorus micropus* van Lidth de Jeude, 1905 (Squamata: Sauria: Scincidae) from Sarawak, East Malaysia (Borneo)

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Abstract *Tropidophorus micropus* van Lidth de Jeude, 1905, described from the upper Mahakkam River, Kalimantan, Indonesia, is here redescribed, based on new material from upper Baleh, Sarawak, East Malaysia (Borneo), collected after over 100 years. The new locality is ca. 94 km to the north of the type locality, and comprises a new national record.

Keywords *Tropidophorus micropus*, rediscovery, Scincidae, Malaysia, Borneo

Tropidophorus micropus van Lidth de Jeude, 1905 was described from a unique specimen (RMNH 4452, presumed to be an adult male, based on swollen tail base), collected from "Long Bloe Upper Mahakkam" (= Long Blu, also spelt Long Bloéoe, 00.71667°N; 114.2500°E; on the upper reaches of Sungei Mahakam, Kalimantan Timur Propinsi, Indonesia, on the island of Borneo). No images were provided in the original description, and the holotype is illustrated here (Figure 1). Subsequent authors (e.g., de Rooij, 1915) referred to the species, but apparently no further specimens have been collected. The recent records of the species by Stuebing *et al*. (1999) and Das (2004) are based on misidentified specimens.

In May 2015, two specimens of *Tropidophorus* were collected during an expedition to the headwaters of Sungei Baleh, central Sarawak, that we allocate to this nominal species. This constitutes the rediscovery of the poorly known species, as well as the first confirmed record for Sarawak and Malaysia.

We provide an expanded description of these specimens, including, for the first time, a description of its colouration as well as images.

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The specimens were collected on 19 May 2015, photographed before euthanasia, fixed in formalin, and subsequently washed in water and transferred to 70% ethanol about a week after collection. Specimens were deposited at the Museum of the Institute of Biodiversity and Environmental Conservation, Universiti Malaysia Sarawak. The following measurements were taken with Mitutoyo™ dial vernier callipers (to the nearest 0.1 mm) approximately two months after collection: snout-vent length (SVL, from snout tip to cloaca); tail length (TaL, from cloaca to tail tip). Scalation: nuchals (enlarged scales behind parietals); paravertebral scales (number of dorsal scales from posterior edge of parietals to a point above vent); ventrals in transverse rows (number of scales from first gular to precloacal scales), and scale rows at position of 10th subcaudal on tail including subcaudal.

Material Museum of the Institute of Biodiversity and Environmental Conservation, UNIMAS P1168, from a small stream located at the First Count Logging Camp (01.35.644°N; 113.47.377°E), Putai, upper Baleh, Kapit district, Sarawak, East Malaysia (Borneo), altitude 117 m ASL (datum WGS84), collected by Yong Min Pui, 19 May 2015. Adult females (Figures 2–3).

Redescription Relatively small, SVL 35.2 and 38.2 mm, TaL 43.1 and 46.8 mm; snout acute, not projected beyond lower jaws; nostril laterally oriented, oval,

situated closer to snout-tip than to orbit; head wide, much wider than long; head shape slightly flattened; upper head shields striated; frontonasal trapezoidal, wider than long; prefrontals large, in broad contact; frontal elongated, trapezoidal, wider anteriorly; frontoparietals joined; interparietal single, smaller than frontonasal; four supraoculars, the fourth supraocular contacting orbit; 7 supraciliaries, row not completed along the entire length of lateral edge of supraoculars; two pairs of parietal scales; large posterior parietal, contact posterior to interparietal; small anterior parietal, contact with frontoparietal and supraoculars IV; posterior parietal largest head shields, as large as four supraoculars; no enlarge nuchal scale; nostrils on nasal located closer to anterior loreal; postnasal absent; supranasals absent; loreals two, trapezoidal; anterior loreal lower than posterior; two presuboculars, separating supralabial III from orbit; six supralabials (supralabial IV contacting orbit); four infralabials; mental smaller than rostral; rostral broad, projecting onto snout; posterior border of rostral straight; postmental undivided; chinshields in three pairs, first and second pair in broad contact, and third pair separated by three scales; auricular opening scaleless, ovoid and smaller than orbit of eye, its location indicated by a shallow depression; eyes relatively small; pupil discernable in preserved specimen; moveable eyelids; upper palpebrals 12; lower palpebrals 15; tongue short; undivided anteriorly, tip obtuse, not pointed; teeth relatively small and somewhat sharp.

Body slender, BW 5.6 and 5.9 mm; head distinct from neck and body; 45–46 longitudinal scale rows from parietal to above level of anterior margin of hind limb; dorsal and lateral scales on body and tail distinctly keeled; 45 longitudinal scale rows from the posterior end of parietals to posterior margin of thigh; ventrals 47, counted from first postgular to last scale before preanals; median rows enlarged, as wide as adjacent scales; transverse scale rows at midbody 26; subcaudals 69; median ventral scales enlarged relative to the scales on flanks; preanal enlarged, single; tail laterally compressed, relatively long, longer than snout-vent length; tail tip acute; tail base wider than rest of tail; tail gradually tapering to a point; median row of subcaudals enlarged.

Limbs well developed and short, pentadactyle, digits short and clawed; lamellae smooth, enlarged; adpressed limbs touching; lamellae under finger I-4; II-8; III-8; IV-5; and V-3; lamellae under toes I-2; II-8; III-12; IV-13; and V-7.

It may be worth reporting the discrepancy between the midbody scale counts in the original description of van

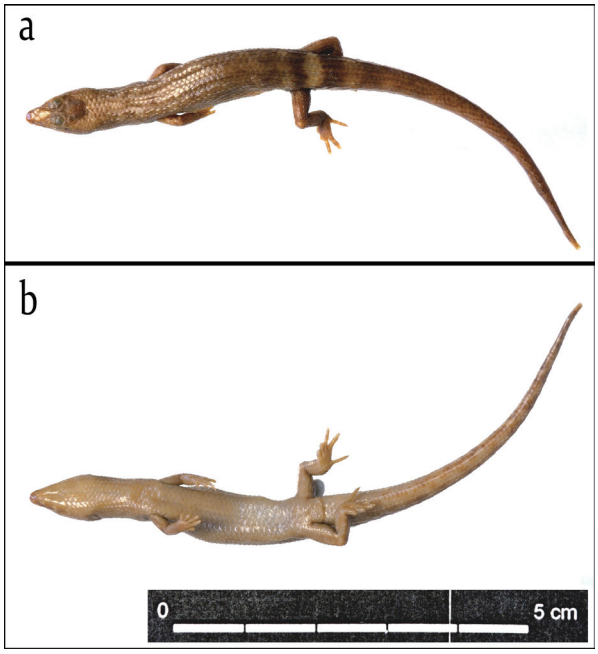

Figure 1 *Tropidophorus micropus* van Lidth de Jeude, 1905 (RMNH 4452) holotype in a. dorsal and b. ventral views.

Figure 2 *Tropidophorus micropus* van Lidth de Jeude, 1905 (UNIMAS P1168) in life.

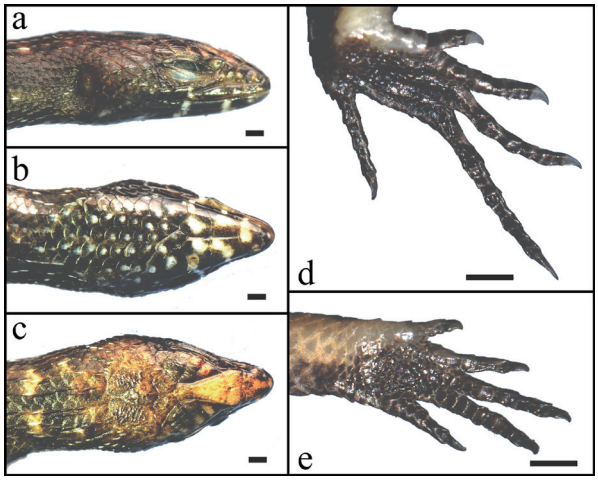

Figure 3 *Tropidophorus micropus* van Lidth de Jeude, 1905 (UNIMAS P1168), showing head in a. lateral; b. ventral; and c. dorsal views; and d. pes and e. manus. Scale markers = 1 mm.

Lidth de Jeude (1905) and that given in de Rooij (1915), who examined the same specimen (34), and that obtained with the present material (26). Such differences may be expected between individuals drawn from different populations, and several congeners of *Tropidophorus* show midbody scale variation (*berdmorei*, 32–40; *davaoensis*, 34–40; *grayi*, 24–28; *hainanus*, 30–34; *hangnam*, 28–31; *laotus*, 30–36; *microlepis*, 28–32; *misaminus*, 28–34; *partelloi*, 28–32; Das, unpubl.). Nonetheless, the Sarawak specimens of *micropus* show the following combination of characters unique to the species, including keeled dorsal scales, and supraoculars numbering four. To these, we add the distinctive coloration, especially the pattern on pelvic and caudal regions.

Coloration (in life) Dorsum dark brown, with eight paired pale brown blotches (comprising a pair on neck, a pair at level of axilla and five on torso, between fore- and hindlimbs), each blotch edged with black; on inguinal region, a broad, paired band of the same colour; forehead unpatterned dark brown; supra- and infralabials black with cream-coloured spots; flanks greyish-brown, with large pale-edged dark oblique bars; dorsal surface of fore- and hindlimbs dark brown; dorsal surface of tail dark brown, bearing darker bands; gular region up to level of forearms black with bluish-cream spots; pectoral and abdominal regions salmon pink, the pectoral region with darker variegation, the abdominal region patternless; undersurfaces of limbs pale pink with darker variegation; manus and pes grey; ventral surface of tail dark grey with large, pale areas; pupil rounded, black; iris bronze-brown.

Ecological Notes and Distribution The series was collected from narrow crevices of rocky banks of small streams at the headwaters of Sungei Baleh (Figure 4). Both females contained two yellowish-cream colored ova, and visible externally in life. The new locality provides the first record for both Sarawak and Malaysia, and lies ca. 94 km to the north of the type locality (distance calculated using Movable Type Scripts; http://www.movable-type.co.uk/scripts/latlong.html), across Pengunungan Mueller (= Müller Range) that forms the boundary between Sarawak (Malaysia) in the north and Kalimantan (Indonesia) to the south.

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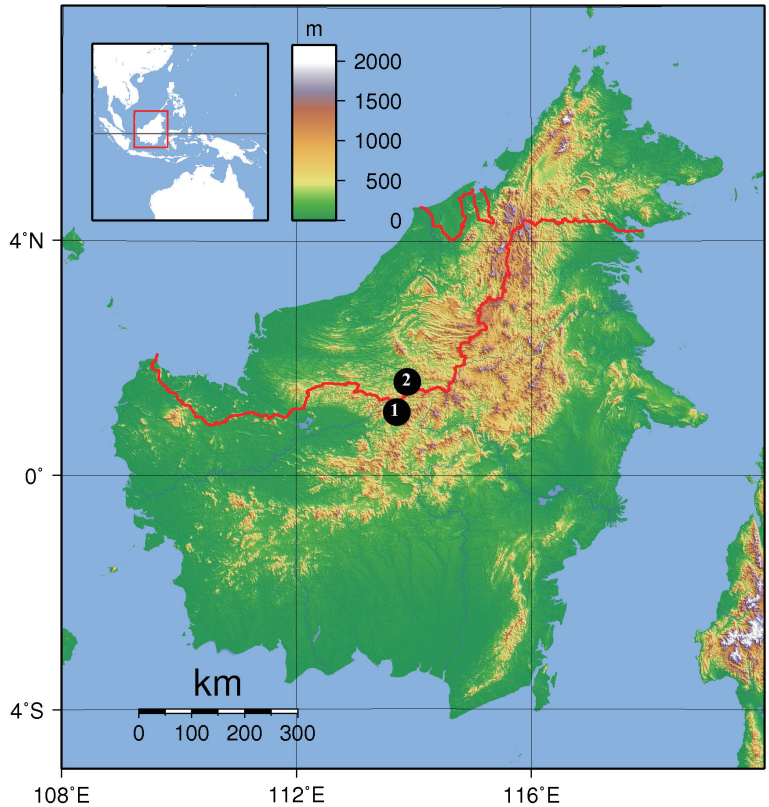

Figure 4 Map showing distribution of *Tropidophorus micropus* van Lidth de Jeude, 1905, including the type locality at Long Blu, Sungei Mahakam, Kalimantan Timur, Indonesia (1) and Putai, Upper Baleh, Sarawak, Malaysia (2). Inset: Map of the Indo-Pacific, showing the location of Borneo.

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