An Enigmatic *Lygosoma* (Reptilia: Squamata: Scincidae) from Northern Myanmar

Four species of Writhing Skinks (*Lygosoma*) have been reported from Myanmar (Geissler et al. 2012). None are commonly seen owing to their occupancy of the interface between the soil and surface litter. Specifically in Myanmar, the geographic and ecological distribution of *Lygosoma* remains poorly documented. While examining Burmese *Psammodynastes pulverulentus* (Boie, 1827) for prey content, we discovered a small skink (CAS 259393) in one of the specimens (CAS 240982). Our initial identification assumed that it represented *Lygosoma haroldyoungi* (Taylor, 1962) owing to the distinct transverse banding on the tail, but its meristic characters have led us to believe it is distinct. Since the specimen is partially digested and only the lower half of the specimen remains, we tentatively label it *Lygosoma cf. haroldyoungi* to denote its superficial similarity to this taxon.

*Lygosoma haroldyoungi* is a primarily sub-fossorial species, a large factor why records are so limited. Active during the day, *L. haroldyoungi* has been documented to be relatively tolerant of human development and has been found in a variety of habitats ranging from agricultural lands to caves entrances (Teynie and David 2010) in tropical dry semi-deciduous forests. This species has been proposed to inhabit Myanmar and nearby Cambodia (Chuaunkern et al. 2013). *L. haroldyoungi* is distinct from the other *Lygosoma* of Southeast Asia due its most defining morphological trait, the bands around the tail (Das et al. 2010), making the species unique and easy to identify. The *Psammodynastes pulverulentus* specimen was collected on 7 July 2008, in the Myitkyina district of the Kachin State, within the Indawgyi Lake Wildlife Sanctuary (24.96205°N, 96.34236°E). The nearest record of *Lygosoma haroldyoungi*.

**FIG. 1.** Map identifying the origin of the new *Lygosoma* and the nearest record of *Lygosoma haroldyoungi*.
Fig. 2. Dorsal view of undigested portion of the Lygosoma specimen (CAS 259393) from the Kachin Psammodynastes pulverulentus (CAS 240982).

our scope and budget, we offer the following data. Our Kachin specimen (CAS 259393; Fig. 2) has a total tail length of 56 mm, with the unregenerated portion being 47.5 mm. The undigested portion of the body is 30 mm. The hind limb is 23.9 mm. There are 33 midbody scale rows, 15 fourth toe lamellae, 5 fourth finger lamellae and a digital formula of 4:3:5:5:2. Both the dorsal and ventral scales are smooth. No scales are keeled. The transverse banding begins immediately at the anterior base of the tail, eleven thin but complete tan bands wrap around the tail. One incomplete faded band rests immediately anterior to the vent on the body. The venter is a uniform cream coloration, which continues onto the tail. The dorsal coloration of the trunk is an alternating shades of brown and mahogany. The sex is undetermined.

Comparisons.—We include comparisons to the known four species of Lygosoma that have been documented in Myanmar, and a comparison to L. haroldyoungi due to its morphological similarities.

From L. haroldyoungi, our specimen has 33 midbody scale rows. L. haroldyoungi has 38–42 (Geissler et al. 2012). The Kachin specimen also has a significantly higher subdigital lamellae count under the fourth toe (15) than L. haroldyoungi (6–7). L. haroldyoungi shares the unique transverse banding seen on our specimen, the only species of Southeast Asian Lygosoma to possess this character. A major geographic gap exists in between our Kachin specimen and L. haroldyoungi (Fig. 1). The nearest record of L. haroldyoungi (Chuaykern et al. 2013: fig. 3) is in Thailand’s Chiang Mai Province, more than 600 km south of the Indawgyi Lake Wildlife Sanctuary.

Lygosoma popae (Shreve, 1940) differs from our Kachin specimen by its significantly lower fourth toe lamelae (Shreve 1940) count of 7. L. popae also has longitudinal stripes extending onto the tail. L. popae comes from a notably higher elevation of 1250 m on the outskirts of Mt. Popa, in contrast to our specimen recorded at 326 m. The dry evergreen forests of Mt. Popa contrast the habitat and precipitation of northeastern Myanmar, where rainfall reaches greater than 2000 mm annually.

Lygosoma anguinum (Theobald, 1868) shows little resemblance of our specimen in almost all aspects. L. anguinum has 22 midbody scales and 6–9 fourth toe lamellae, and a complete absence of any banding on body and tail. Lygosoma bowringii (Gunter, 1864) has 12–13 fourth toe lamellae, near the range of our Kachin specimen but has a uniform coloration void of any pattern. Lygosoma lineolatum (Syolizcka, 1870) differs from our Kachin Lygosoma by having 22 midbody scales (vs. 10 in our Kachin specimen) and 8–10 fourth toe lamellae (vs. 15 in our Kachin specimen). Lygosoma boehmei Ziegler, Schnitz, Heidrich, Vu and Nguyen, 2007 of central Vietnam falls in a similar range of meristic characters with 14 fourth toe lamellae and 32 midbody scale rows (Ziegler et al. 2007), but fails to share key morphological characters such as transverse banding on the tail, and no keeled scales.

Of the four species of Lygosoma (L. popae, L. anguinum, L. bowringii, and L. lineolatum) known from Myanmar, none match our specimen. Without the anterior half, which would provide us with vital head scale characters, we cannot identify the Kachin specimen with certainty. Therefore we are reporting it as a new Lygosoma species from Myanmar.

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