

## A New Locality Record for Leith's Leaping Frog, Indirana leithii (Boulenger 1888), from Dhulda Village, The Dangs District, Gujarat, India

Dikansh S. Parmar

Department of Biosciences, Veer Narmad South Gujarat University, Surat, Gujarat, India (ophiophagus\_hannah10@yahoo.com)

Photographs by the author.

eith's Leaping Frog (Indirana leithii; Fig. 1) is a small, slender-bodied frog also known as the Matherana Leaping Frog (from the type locality). These frogs inhabit a wide range of subtropical and tropical moist lowland forests, subtropical or tropical moist montane forests, and heavily degraded forests in which they are associated with leaf litter near streams and rivers, waterfalls, crevices, and various wetlands, where breeding occurs on moist surfaces and larvae inhabit moist areas near water (Biju 2001; Padhye and Ghate 2002; Biju et al. 2004). Until recently, this endemic Indian species had been documented only from the Western Ghats of Maharashtra State. Although the report of the species from Gujarat in Daniel and Shull (1964) is questionable (they provided only a description but no locality data for a site from which they collected larvae), Dahanukar et al. (2016) collected two specimens in 2014 from Ahwa, capital of The Dangs District (20.764°N, 73.676°E; elev. 395 m). Herein I report a new locality and an earlier state record from Gujarat at the extreme northernmost edge of the species' range in the tropical moist deciduous forest of The Dangs District in Gujarat State, India (Fig. 2).

At 0214 h during a field trip on 28 October 2012, while investigating small crevices, rock piles, and plants near a waterfall adjacent a single-lane road between the villages of



**Fig. 1.** Leith's Leaping Frog (*Indirana leithii*) on wet rocks at the waterfall in Dhuldha Village, The Dangs District, Gujarat, India.



**Fig. 2.** Map showing the range of Leith's Leaping Frog (*Indirana leithii*) in the Western Ghats of Maharashtra and Gujarat. Map by Nitin Patel.

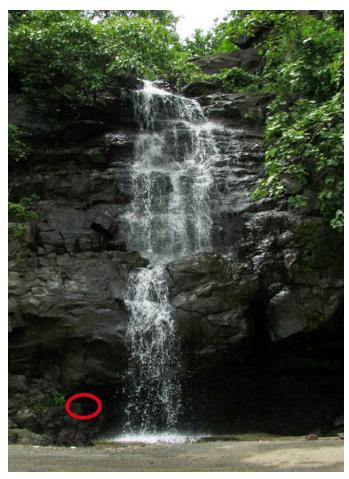
Dhulda and Mahal (20°57'00.97"N, 73°39'34.88"E; elev. 264 m), I sighted a small, brown frog with large toe discs sticking firmly on the wet rocks of the waterfall (Figs. 3 & 4). After taking photographs from various angles and measurements of body length (34 mm), I released it at the original site of capture. By law, no one is allowed to take anything from the forest without permission, thus I did not collect the

specimen for a more detailed examination. Based on descriptions of features (Figs. 3 & 5) in Daniel and Sekar (1989), Ranjit Daniels (2005) and Dahanukar et al. (2016), I tentatively identified the frog as *Indirana leithii* and gave it the vernacular Gujarati name, Leith no chalang marto dedko (a translation of the English common name).

Despite being locally abundant in parts of Maharashtra, I. leithii is definitely known from only two localities in Gujarat. Although more extensive study is required to better understand the species' distribution, Biju et al. (2004) listed it as Vulnerable (VU) on the IUCN Red List of Threatened Species due to apparently declining numbers, severe fragmentation of its distribution, and ongoing loss in extent and quality of its forest habitat. With an extent of occurrence less than 20,000 km<sup>2</sup>, the species faces a high risk of extinction in the wild. Degraded forest and disease (e.g., Nair et al. 2011; Dahanukar et al. 2013; Molur et al. 2015) are major threats. Deforestation is common throughout The Dangs District, where once-dense forest has been turned into vast agricultural lands. Trees are cut even on hilly or sloped areas both along roads and many kilometers into remaining forests. Another threat is chytridiomycosis (a fungal disease cause by

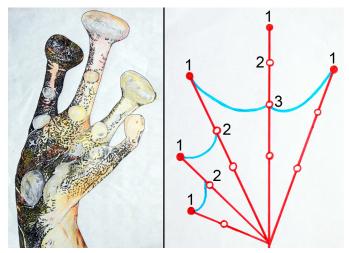


**Fig. 3.** Leith's Leaping Frog (*Indirana leithii*) with prominent tympanum two-thirds the diameter of the eye, pinkish-brown ground color, W-shaped mark, rugose skin with longitudinal warts and black, dark brown, and golden spots, distinct supratympanic fold, and crossbars on limbs.



**Fig. 4.** The location on the waterfall (red circle) where I found a Leith's Leaping Frog (*Indirana leithii*).

Batrachochytrium dendrobatidis), which has been reported in *I. leithii* and *I. brachytarsus* (Nair et al. 2011; Dahanukar et al. 2013; Molur et al. 2015). Unless preventative conservation



**Fig. 5.** Leith's Leaping Frog (*Indirana leithii*) hand and foot: Ventral view of palm and fingers with a single outer palmer tubercle and first finger shorter than second (top). Webbing formula of *Indirana leithii* I1–2II1–2III1–3IV3–1V. Drawings by Vasudev Limbachiya.

measures are implemented quickly, many species, including a number of endemics, are likely to disappear forever.

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