



A new distribution record of Annandale's Bush Frog from Dalma Wildlife Sanctuary, Jharkhand

There is not much data available with respect to the herpetofauna of Bihar and Jharkhand. Venkateswarlu & Murthy (1972) and Sarkar (1991) published a list of 12 species of amphibians in Bihar along with some notes on their habit and habitat and 11 species from Chotanagpur Plateau region. The present study provides new distributional records of Annandale's Bush Frog *Chirixalus simus* from different localities of Dalma Wildlife Sanctuary (DWS), Jamshedpur, Jharkhand.

It has also been reported from Assam, West Bengal, and different locations of Mizoram.

India is one of the recognized mega-diverse countries of the world,

harbouring 432 species of amphibians (Dinesh et al. 2019). *Chirixalus simus* is a small rhachophorid that spends its life almost on low height plant. This is the first time five specimens were studied and photographed from DWS located 10km from the city of Jamshedpur in Jharkhand. The sanctuary

covers around 195km² in the Dalma Hills and as high as 915m. Dalma comes under the category of dry peninsular and northern dry mixed deciduous forest. Coordinates are 22.904⁰N 86.216⁰ E. Temperature may reach up to 44⁰C in the month of May and June and receive maximum precipitation in July and August. It inhabits richest diversity of flora and fauna such as the Asian Elephant *Elephas maximus*, Barking Deer *Muntiacus muntjak*, Sloth Bear *Melursus ursinus*, Indian



Chirixalus simus on a habitat plant

Pangolin
Manis crassicaudata,
Indian Paradise Flycatcher
Terpsiphone paradise,
White-throated Kingfisher
Halcyon smyrnensis,
Indian Peafowl
Pavo cristatus,

Forsten's Cat Snake *Boiga forsteni*, Indian Rock Python *Python molurus*, Buff-striped Keelback *Amphiesma stolatum*, Bengal Monitor *Varanus bengalensis*, Indian Tree Frog *Polypedates maculatus*, Marbled Balloon Frog *Uperodon systema*, Indian Painted Frog *Uperodon taprobanicus*, Yamfly



Lateral view of an adult Annandale's Bush Frog photographed near Pinderabera Forest Rest House.



Dorsal view of Annandale's Bush Frog.



Chirixalus simus with fresh deposited eggs in foamy nest on Giant Elephant's Ear Plant.



The habitat in Dalma Forest from where the animal was collected.



Macrohabitat of the bush frog in Dalma Wildlife Sanctuary.



Panorama of the study area Dalma Wildlife Sanctuary.



Foamy nest of *Chirixalus simus* on *Alocasia macrorrhizos*.



Loxura atymnus, Pansy *Junonia* sp., and Common Four-ring *Ypthima huebneri*. An uncommon species of frog was reported from DWS. After dusk on 28 June 2017 the survey party reached the Pinderabera Guest House (23.520° N, 86.229° E) and collected four fresh specimens of *Chirixalus simus*, from bushy plant *Alocasia macrorrhizos* (L.) G. Don. Specimens were photographed on leaves of Giant Elephant's Ear Plant *Alocasia macrorrhizos* and fortunately we found a foamy nest that was hanging from a leaf in water at a height of one meter above the ground. A monsoon breeder, the bush frog is mostly polyandrous in nature. Mounted pairs of *Chirixalus simus* and *Polypedates maculatus* were observed on the same plant. While on 04 July 2017 while searching for herps in Dalma at night near Makulakocho Forest Rest House entry gate (Tulin) (23.520° N, 86.229° E), again we got a chance to photograph two specimens at 00:20h. We used random survey method and photograph specimen with the help of Canon 1300D 55-250 mm EFS lens and Garmin GPS.

We assign this species on the basis of morphological characters; Small sized frog with broader head; snout rounded; pupil horizontal; tympanum is about half of the eye diameter; toe tips are dilated into large disc; the frog is brownish red with clear longitudinal line dorsally; under part is white.

The International Union for Conservation of Nature (IUCN) categorised it as least concern (LC). The other studies show that the population trend is decreasing due to loss of natural habitat, use of pesticides,

and changes in agriculture practices. The amphibian fauna of Bihar and Jharkhand is poorly studied and not much data is available. Further studies are required to understand amphibian diversity of the sanctuary. There is an urgent need of a conservation action plan and habitat restoration in Dalma Wildlife Sanctuary.

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