NEW GENUS OF TREE FROG DISCOVERED, FOUND IN ANDAMANS AND NORTHEAST INDIA

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The new genus Rohanixalus is named after the Sri Lankan taxonomist Rohan Pethiyagoda. | Photo Credit: <u>Twitter/@SDBiju1</u>

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Scientists and researchers from the University of Delhi and the Zoological Survey of India have discovered a genus of tree frog found in the Andaman islands and the northeast.

Named after Sri Lankan taxonomist Rohan Pethiyagoda, the frogs of the new genus Rohanixalus are characterised by a rather small and slender body (size about 2 to 3 cm long), a pair of contrastingly coloured lateral lines on either side of the body, minute brown speckles scattered throughout the upper body surfaces, and light green coloured eggs laid in arboreal bubble-nests. Based on DNA studies, the new genus is also revealed to be a distinct evolutionary lineage from all previously known tree frog genera.

New marine ornamental shrimp species discovered in Lakshadweep

"The scientists studied multiple aspects, such as the external morphology of adults and tadpoles, phylogeny, calls and breeding biology of several tree frog species widely distributed across South, Southeast and East Asia and confirmed that they represent a new genus," said S.D. Biju of the University of Delhi, who led the study. Prof. Biju is India's leading amphibian taxonomist and has discovered several species, genera and families of amphibians.

The details of the discovery were published in paper titled '<u>New insights on the systematics and</u> reproductive behaviour in tree frogs of the genus Feihyla, with description of a new related genus from Asia [Anura, Rhacophoridae]' in the current issue of *Zootaxa*, a scientific peer reviewed journal for animal taxonomists. Scientists from Indonesia, Thailand and China have also contributed to the study.

New coral species discovered on seabed marked for deep-sea mining

Prof. Biju said the Rohanixalus is the 20th recognised genus of the family Rhacophoridae that comprises 422 known Old World tree frog species found in Asia and Africa. He said there are eight frog species in this genus Rohanixalus, which are known to inhabit forested as well as human-dominated landscapes right from the northeast, the Andaman islands, Myanmar, Thailand, Malaysia, Indonesia, Vietnam, Laos, and Cambodia, up to southern China.

Another interesting aspect is that the first member of the tree frog family, Rohanixalus vittatus (Striped Bubble-nest frog), is reported from the Andaman islands. Researchers said though the amphibian fauna of the Andamans has been frequently surveyed in the recent years, this family was so far not reported, despite being commonly found in wayside areas of north and middle Andaman Islands.

New butterfly species seen in Visakhapatnam district

"Our discovery of a treefrog member from Andaman Islands is unexpected and again highlights the importance of dedicated faunal surveys and explorations for proper documentation of biodiversity in a mega diverse country like India. This finding also uncovers an interesting new distribution pattern of tree frogs that provides evidence for faunal exchange between Andamans and the Indo-Burma region," Prof. Biju said.

The genus has several unique behavioural traits including maternal egg attendance where the female (mother) attends the egg clutches until hatching and assists in release of the tadpoles into the water. During the first three days after egg laying, the female sits over the eggs and produces a gelatinous secretion with which she glazes the egg mass through clock-wise movement of her legs. This behaviour provides necessary moisture to the eggs laid on exposed leaf surfaces and protects them from insect predation.

Researchers during the field studies found a large number of egg clutches (over 50) of different developmental stages on a single leaf or plant. Multiple females usually attend such clutches in a behaviour termed as 'community' egg attendance. Frogs of the new genus along with the unique nesting behaviour also reported to display territorial behaviour and frequent male-male combats involving pushing, kicking and dislodging to successfully mate with a female.

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