

## Delhi University professor leads discovery of 14 new 'dancing frogs'



NEW DELHI: A team of scientists led by Delhi University professor Sathyabhama Das Biju aka 'frogman of India' has discovered 14 new species of dancing frogs from the forests of Western Ghats, India.

This unprecedented finding has been published in a science journal by Biju and his co-researchers Sonali Garg of DU, K V Gururaja of Indian Institute of Science, Bangalore, Yogesh Shouche and Sandeep A W of National Centre for Cell Science, Pune.

The frogs are found exclusively in the Western Ghats covering the states of Kerala, Tamil Nadu, Karnataka, Goa and Maharashtra. The studies were conducted over the last 12 years.

Only the males dance-in a unique breeding behaviour called foot-flagging. They whip their legs out to the side to draw the attention of females who might otherwise not hear their mating croaks over the sound of the fast flowing perennial hill streams-the 'splash zones' of which are their habitat. The bigger the frogs, the more they dance. They also smack away other males-the sex ratio for the amphibians being usually around 100 males to one female.

Known as Micrixalidae, the family of Indian dancing frogs comprises a single genus-Micrixalus, having evolved separately about 85 million years ago.

Previously, only 11 species were recognized in this endemic family and these were also poorly known from patchy information about their geographical distribution and lifestyle. The new study by Biju and his team brings the number of their species to 25 and is the first comprehensive work on them.

Speaking about the significance of the discovery, Biju said, "This is the first time such a large number of species has been discovered and described. Secondly, this indirectly informs the world and specifically scientists in India that we have to think a lot on issues of conservation. We are yet to document the flora and fauna in India properly. There's so much yet to be discovered."

According to scientists, frogs are environmental barometers and are very sensitive to subtle changes in their environment. They lived alongside dinosaurs, which have long since disappeared. Unfortunately, their existence is precarious. Thirty-two percent of the world's

amphibian species are threatened with extinction. Every 20 minutes, a species is pushed to extinction as more than 1,000 acres of forests are destroyed.

Western Ghats is a global amphibian hotspot. There are 181 species known from this region. "There is a distinct possibility that about 100 more new species could be discovered from here in the near future," Biju said. "The major threat to amphibians in India is massive habitat loss. Making any effort for amphibian conservation will indirectly conserve several other important biodiversities in that area," Biju said.

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