



Amphibians are the most threatened vertebrates; climate change and habitat loss are the biggest threats

Hyderabad, 5th October, 2023: A global team of experts on amphibians have recently published the second Global Amphibian Assessment Report in the journal *Nature*. Dr Karthikeyan Vasudevan from CSIR-Centre for Cellular and Molecular Biology (CCMB) was a member of the team. This report highlights that amphibians (frogs, caecilians and salamanders) are the most threatened vertebrates in the world now, with over 40% of all species facing threats of extinction, out of 8,011 species assessed so far. The study shows that their status is deteriorating globally.

The scientists found that between 1980 and 2004, disease and habitat loss were the reasons for putting 91% of the amphibian species studied to threat. While from 2004 to 2023, climate change and habitat loss are the major culprits for status deteriorations of 39% and 37% species studied respectively.

This study is of particular interest to India since the country ranks 6th in the world for the diversity of amphibians. It houses nearly 70% of all species found nowhere else in the world. It also has 41% of threatened species and it is among the top 3 countries in Indo-Malayan region for threatened amphibians. Nearly all of them face threats due to habitat loss.



Female venated gliding frog - Rhacophorus pseudomalabaricus a vulnerable species and endemic to the Western Ghats

“A disease caused by a fungal pathogen and climate change have been recognized to cause deterioration of status in 60% of the threatened species. Due to the growing pet trade and wildlife trade the pathogen moves globally, causing problems for local amphibian

populations. In April 2023, CSIR-CCMB developed a novel non-invasive diagnostic technique for detecting the fungal pathogen that is now being offered in the Institute's wildlife diagnostics service," said Dr Vasudevan. "The findings highlight the need for monitoring of prevalent pathogens and populations of amphibians in their habitats in India. It also emphasizes the need to rescue endangered amphibians by establishing populations in Indian zoos," he added.

Ongoing declines for the world's amphibians in the face of emerging threats. *Nature* (2023). By Luedtke, J.A., Chanson, J., Neam, K. *et al.* <https://doi.org/10.1038/s41586-023-06578-4>