

for MEDIA PEOPLE

ADVANCING FRONTIERS OF AMPHIBIAN CONSERVATION

Kerala Forest Department Auditorium, Thiruvananthapuram
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Kerala Forest Department and University of Delhi

ABOUT Amphibians

What is unique about Amphibians?

Amphibians can live on land and in water. The word 'amphibian' comes from this double adaptation. (Greek: *amphi* means both and *bios* means life). Frogs are the most widely known amphibians. Frogs are fascinating animals.

Frogs are environmental barometers. They are sensitive to subtle changes in their environment. They lived alongside dinosaurs. Dinosaurs have disappeared but frogs continue to exist. However, their existence is precarious. If the present trends in extinction continue, many frogs could disappear forever. 32 percent of the world's amphibian species are threatened with extinction. Every 20 minutes a species is pushed to extinction and more than 1000 acres of forests are destroyed. But we still have a ray of hope for a better future for frogs. Firstly, frogs have lived on earth for a period that is 5000 times more than the period humans have lived on earth. Secondly, there is a rapidly growing interest in frogs among scientists and nature lovers alike.

PRESS NOTES

The Western Ghats is a global amphibian hotspot (Gascon *et al.* 2005). New amphibian species are being discovered at an unprecedented rate, particularly over the last 5 years, as fieldwork and research in the area has intensified (Biju, 2003). There is evidence that the Ghats have an extremely diverse amphibian fauna and may have over 90% endemism, including at familial and generic levels (S.D. Biju, unpublished data, Biju 2008). The ongoing research by Dr. SD Biju is currently analyzing genetic data from samples collected from throughout the Ghats for over 25 years to assess the pattern of endemism and species richness. This research is identifying major centers of diversity within the region. Endemism is particularly marked among amphibians in the Western Ghats: of approximately 250 species, around 170 are endemic. This remarkable endemism is not only at species level but also at higher taxonomic levels (eight genera and one family). The recent trends in amphibian research clearly emphasize the importance of extensive scientific explorations to document the large number of undiscovered species.

At the same time that the evolutionary history of amphibians in the Western Ghats is being unraveled, species are facing increasing risk of extinction. Among the Ghats endemics, over 90 species are considered threatened according to IUCN Red List of Threatened Species. The primary reason amphibians are in such trouble in this region is because many species are only found in a single location, with multiple species often being endemic to the same site. Within these sites, the appropriate habitat often occurs over a small area. Hence, a minor habitat loss or alteration may lead to multiple rapid extinctions (Ricketts *et al.* 2005).

In November 2010, a workshop was organized in University of Delhi to develop a strategy for launching an ambitious amphibian conservation effort and to create a network of protected areas for endangered amphibians throughout the Western

Ghats. This initiative, the Western Ghats Network of Protected Areas for Threatened Amphibians (WNPATA - see www.wnpata.org) is the first to aim at comprehensively protecting a country's threatened amphibians through a coordinated effort by government and nongovernmental organizations.

WNPATA project, is coordinated by Dr S.D. Biju of University of Delhi. Internationally this project partners with Global Wildlife Conservation, Critical Ecosystem Partnership Fund, US Fish and Wildlife, Conservation International, IUCN/SSC Amphibian Specialist Group. National partnerships are with Ministry of Environment and Forests, Kerala Forest Department, University of Delhi, and various Forest Departments of different states of India, as well as state agencies with land management responsibilities.

The proposed workshop, **ADVANCING FRONTIERS OF AMPHIBIAN CONSERVATION** is the second in this series and targets forest officials and media people from the Western Ghats states.

ABOUT this workshop (Jointly organised by Kerala Forest Department and University of Delhi)

This workshop is exclusively for Forest officials of the Western Ghats states (Maharashtra, Goa, Karnataka, Tamil Nadu and Kerala) and media people. Forest officials and media people have extremely important roles in successful conservation of the most vulnerable group of vertebrate animals – the amphibians. The workshop will be organized in three sessions: Inaugural session, technical session “PERSPECTIVES FROM WESTERN GHATS STATES” and “AMPHIBIAN CONSERVATION – FOCUS ON MEDIA. Pure scientific deliberations would be kept to a minimum. The workshop is primarily for creating a platform for dialogue with media and forest officials for increasing emphasis on the importance of amphibian conservation (please see the programme for further detail).

Highlights

Total number of world amphibians
6771 species, third largest among the land animals after fishes and birds

Total number of Indian amphibians
321 species

Total number of Western Ghats amphibians
250 species

Threat status of amphibians
One out of three species is endangered. Most threatened animals in the world are amphibians, both globally (1898 species) and in India (90 species).

Highest number of endemic amphibian families in the world
India, with four families

First land animals with vertebral column
Amphibians

Highest number of critically endangered vertebrate animals of India
Amphibians

Major reason of amphibian extinction in India
Habitat destruction

Importance of amphibians in our ecosystem

Friends of farmers controlling pests in agriculture fields; Environmental indicators; conveyor belt of food chain-maximum biomass consumed by other animals; medical application: cancer treatment, HIV inhibiting ability etc; controlling water quality in urban ecosystem

Associated programmes coordinated by University of Delhi for amphibian conservation

LOST! AMPHIBIANS OF INDIA <http://www.lostspeciesindia.org/LAI2/expedition.php>

Teams of scientists and naturalists from India have conducted searches for “lost” amphibian species. This initiative is launched with the hope of rediscovering over 50 species of "lost" amphibians in India. These animals are feared to be extinct but there is hope that some may be holding on in a few remote places.

This search, which is taking place in 15 states of India, is the first ever coordinated effort to find such a large number of "lost" creatures. Globally, amphibian populations are on a shocking decline – with more than 30 per cent of all species threatened with extinction.

Lost Amphibians of India (LAI) initiative currently has about 200 members <<http://www.lostspeciesindia.org/LAI2/expedition.php>>. It has already conducted eight expeditions and is planning 25 more expeditions within two months before monsoon ends.