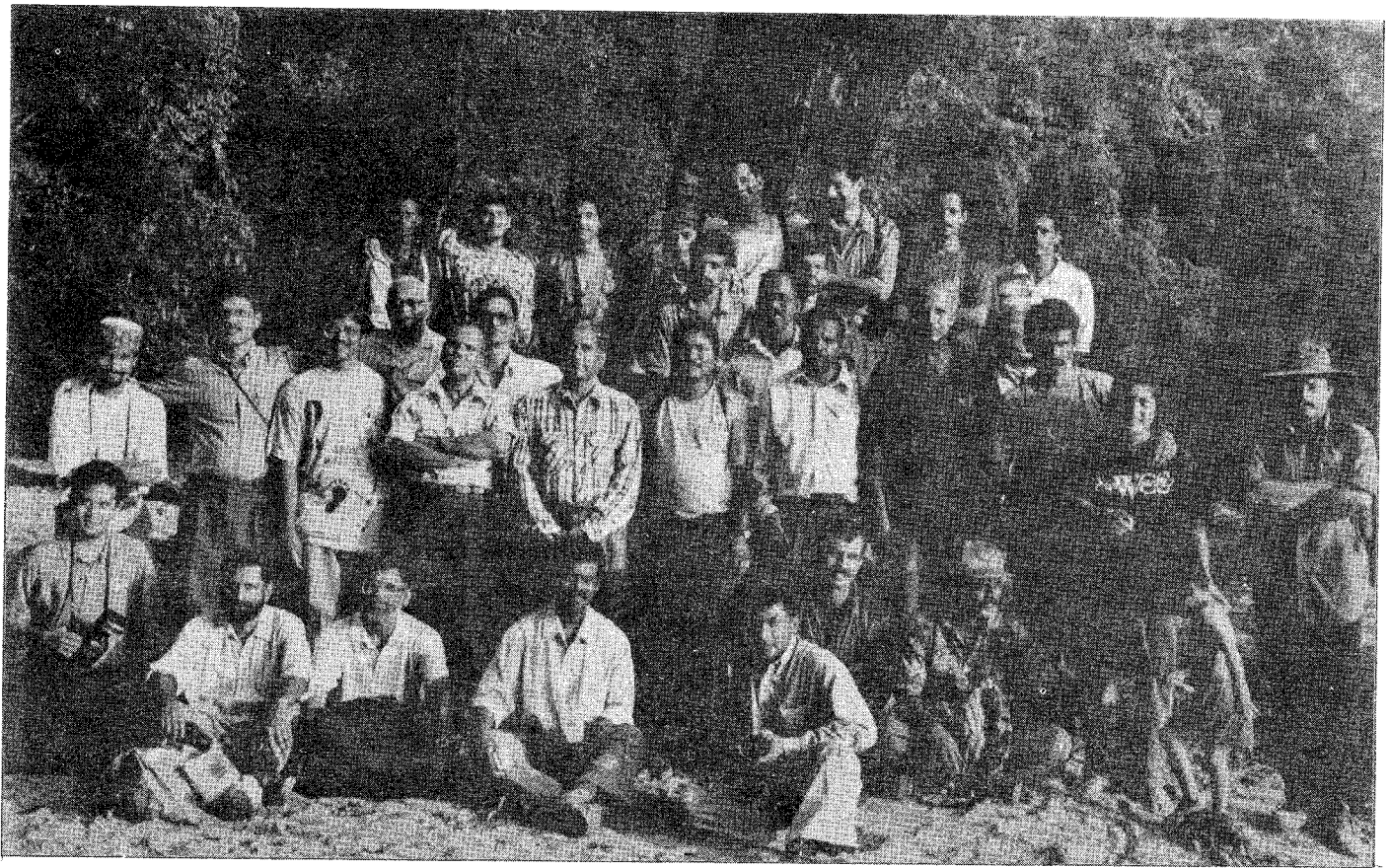


# Hands-on Training in Amphibian Field Techniques, Identification and Taxonomy



The south Asian amphibian network is three years old and has till date accomplished quite a few "first-time ever" tasks, all of which have been either the need of the hour or a strong recommendation suggested by the network members. The most recent one, a direct implementation of a unanimous recommendation by the participants of the amphibian Conservation Assessment and Management Plan workshop conducted in Bhubaneswar in 1997, is the Hands-on Training Workshop on Amphibian Field Techniques, Identification and Taxonomy.

The first ever hands-on training workshop was conducted from 14 to 18 December 1998 at Kukke Subrahmanya, a temple town in Suliya taluk, Mangalore district, Karnataka. The workshop was attended by more than 30 participants, most of who were amphibian biologists from different parts of the country --Assam, West Bangal, Orissa, Arunachal Pradesh, Maharashtra, Kerala, Karnataka, Tamil Nadu, Haryana and Gujarat. A participant from Sri Lanka also attended the 5-day workshop.

The purpose of this workshop and the venue was to combine the training with survey of the forest where C.R.N. Rao described a few species from. Kempfoley and Gundia forests are parts of a single large stretch of forests that include the Subrahmanya range and extends to Pushpagiri Wildlife Sanctuary. The forest comes under three divisions, viz. Hassan, Mangalore and Coorg. The workshop training was conducted in the forests of Hassan and Mangalore divisions. Time was a constraint in conducting systematic surveys.

## Collaborator



Forest Department of Karnataka

## Organisers



Zoo Outreach Organisation

## Sponsors



Declining Amphibian Populations Task Force SSC/IUCN



Conservation Breeding Specialist Group India



Friends of Rare Amphibians of the Western Ghats



DALLAS ZOO



Columbus ZOO



Declining Amphibian Populations Task Force South Asia

Activities during the workshop included:

Day 1:

- General introduction to the workshop, the objectives and brief introductions between participants
- Amphibian calls, their characteristic features, recording and instruments used by Girish Kadavevaru
- Taxonomic keys as published in JBNHS by Mr. Daniel, et al. and field identification protocol by M.S. Ravichandran
- Trip to Gundia forest with Ravichandran to conduct visual survey and explanation of field identification techniques.
- Introductory talk on amphibian systematics by Indraneil Das

Day 2:

- Slide presentation on caecilians, their biology, characteristic features, distribution and identification by G.K. Bhat
- Amphibian marking and preservation techniques by Indraneil Das
- Field methodologies as practiced by different participants, brief outline of the advantages and disadvantages of the methods and case studies by Indraneil Das, S. Bhupathy, G.K. Bhat and S.V. Krishnamurthy
- Trip to Kempholey forest in the evening for quadrat method demonstration
- Amphibian photography demonstration by Indraneil Das

Day 3:

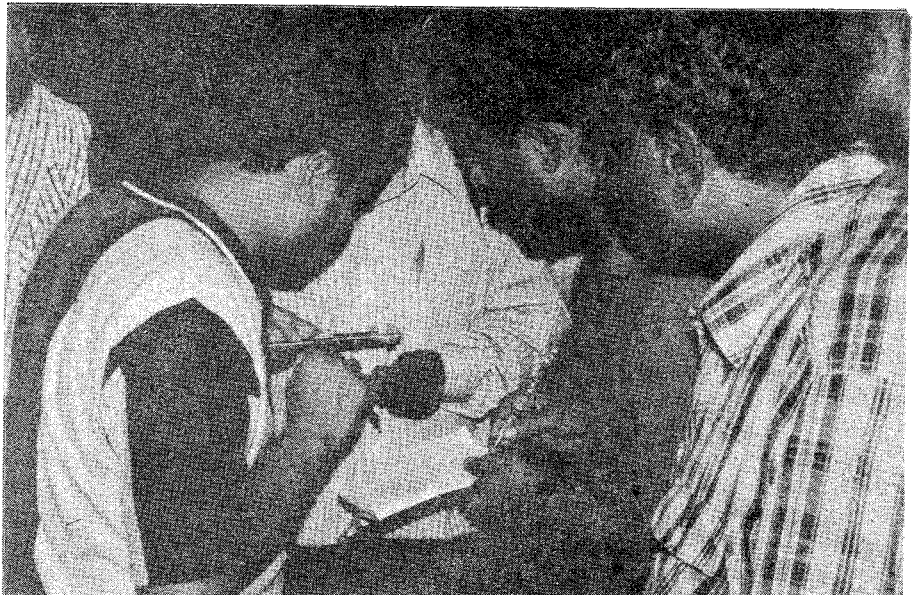
- Talk on history of amphibian natural history by Indraneil Das
- Detailed discussion on amphibian systematics, recent trends, misconceptions and taxonomy by Indraneil Das
- Systematic steps in identification of specimen collected the previous day using published keys. Identifications were made using only morphological and morphometric characteristics and no individual was dissected by S. V. Krihnamurthy and Indraneil Das
- Discussion on data collection, parameters required for the same and listing of all points to be considered during field studies
- Scientific writing for journals, scientific illustrations and photography by Indraneil Das and S. Bhupathy
- Listing of international and national journals on amphibians
- Listing of all museums and scientific collections of Indian amphibians in India and abroad
- Trip to Subrahmanya forest for conducting pitfall trap, drift fences, canopy traps and stream transect studies

Day 4:

- Capture/recapture method as a feasible



*Participants digging a pit fall*



*Participants taking measurements of a caught specimen*



*Some tips on photographing frogs in the wild*

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**S.V. Krishnamurthy**

-- Trip to Subrahmanya to reconduct  
stream transect study, check for results of  
the pitfall and canopy traps  
-- Shift equipment to new site around  
stagnant water body in the forest to  
conduct drift fence/ pit fall methods, visual  
encounters and identification and survey  
for caecilians

**Day 5:**

-- Explanation of characteristic features of  
the surrounding forests by Sharath B.  
Krishna  
-- Explanation of survey methods by S.V.  
Krishnamurthy as done by him  
-- Compilation of data, and interpretation  
of the stream transect survey results by  
S.V. Krishnamurthy  
-- Exercise on designing a workshop t-  
shirt by all participants  
-- Care and handling of amphibians by  
Anad Padhye  
-- Listing of characteristic features of  
amphibians to aid in the preparation of a  
field guide/ key  
-- Explanation of ecology and habitat  
characteristics by S. Bhupathy  
-- Listing of habit, habitat and microhabitat  
features for amphibians as a standard to  
be followed consistently by field iologists  
in India  
-- Want list of the participants regarding  
literature, memberships to organisations,  
books, journals, etc.  
-- Trip to the stagnant water body site by  
one group of participants to study the  
results of previous day pit fall traps.  
-- Vote of thanks and closure of workshop.

Initially the workshop was envisioned to  
have experienced amphibian field  
biologists as resource persons, but  
unfortunately many of them could not

tool for amphibian population studies?  
explanation with respect to turtles and  
discussion led by Sharath B. Krishna  
-- Marking of amphibians discussion and  
assignment to various participants post  
workshop on the same  
-- Linear quadrat surveys of amphibians  
as conducted by S.V. Krishnamurthy  
-- Methodologies to study caecilians by  
G.K. Bhat  
-- Step by step identification of specimen  
caught the previous day using  
morphological and morphometric keys by



*Laying canopy traps*

make it to the workshop due to various  
personal reasons. This was thought of  
as a set back to the workshop, but the  
participants made the workshop a lively  
one and a very interactive affair sharing  
their knowledge and experience in the field.  
The resource persons were missed but  
the experience also suggests the  
dependence of Indian amphibian studies  
on such few people. The workshop in  
itself is a good exercise in understanding  
the need to develop more and more  
amphibian professional biologists -- to  
maximise options and minimise regrets!

The next hands-on training workshop will  
be conducted in Assam with the help of  
Saibal Sengupta and other NGOs in  
Assam and surrounding states. This is  
planned to include both amphibians and  
reptiles and to be conducted in April 2000.  
The output from this first workshop will be  
compiled into a briefing book for the  
coming workshops.

We wish to thank all of our supporters,  
collaborators, sponsors -- Forest  
Department of Karnataka, Declining  
Amphibian Populations Task Force SSC/  
IUCN, Dallas Zoo, Columbus Zoo and  
Friends of Rare Amphibians of the  
Western Ghats; and not to forget, Mr.  
Sharath B. Krishna for all his help in  
making ground arrangements and for his  
encouragement, also to his wife Mrs.  
Savitha Krishna.



*Participants trying to identify a frog in the field*