

# EXPEDITIONS/WEIR FUND FOR FIELD STUDIES/BARNSON BEQUEST

## REPORT ON EXPEDITION/PROJECT

**Expedition/Project Title:** Project Hiyare 2007

**Travel Dates:** 30/06/2007- 05/09/2007.....

**Location:** Galle District, SE Sri Lanka .....

**Group Member(s):** R. McIntosh, A. Fullbrook, J. Mutch, S. Goonewardene .....

**Aims:** To look at the herpetofaunal diversity of a Lowland rain forest fragment in SE Sri Lanka.....

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### OUTCOME (not more than 500 words):-

The Wet Zone of Sri Lanka together with the Western Ghats of India are considered to be one of the eight hottest global biodiversity 'hotspots'; with estimates of 3.9 amphibian species of per 1,000km<sup>2</sup> in Sri Lanka alone. This is the highest level of amphibian diversity per unit area of land in the world. Unfortunately, researches also suggest Sri Lanka's amphibians are experiencing rapid population declines at an alarming rate, with more than half of worldwide extinctions being reported from the country.

Very little research have been done on small isolated forest fragments such as Hiyare, that are most at risk from anthropogenic factors such as habitat loss which makes most species vulnerable to predators. Hiyare forest consists of small wet zone forest fragment of lowland rainforest (Elevation Range: 98-152m), surrounding the present Hiyare Reservoir (Galle District).

Prior to this study, no in-depth research on any taxonomic group had been carried out at Hiyare, hence accepted ecological research techniques (quadrat sampling and line transect) were used to ascertain the herpetofaunal diversity of this ecosystem.

### Some of the important findings/ contributions of Project Hiyare 2007 include:

- Physical verification and documentation of 46 species of reptile inhabiting the fragment, of which 54% are endemic.
- Discovering two species of amphibians of the genus *Philautus* and a crotalid snake *Hypnale* species (Family Viperidae) that could not be identified using the available keys. These animals could be new to science.



- The project has documented the natural history of data poor endemic species such as Nagao's pugsnout frog (*Ramanella nagaoi*) and Rough-nose Lizard (*Ceratophora aspera*). This information is useful for research workers and wildlife managers for future in situ breeding programs.
- According to available literature, it is the first time the calls of the amphibian species present in Hiyare have been recorded, except *R.*

*nagaoi*. It is hoped that this new information can be used to carry out Audio strip transects in the future by other research groups, to carry out diversity surveys in the region and monitor population densities of this extremely secretive frog.

- Training was given to local Conservation NGO's such as Wildlife Conservation Society of Galle and Amphibian and Reptile Research Organization of Sri Lanka and a postgraduate student of the Rajarata University of Sri Lanka in the latest herpetological techniques.

Below: *Ramanella nagaoi* by Suraj Goonewardene



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**NB Project Knuckles could not go ahead as planned, due to Research approval not been granted by the Government in the last minute, hence the project was moved to Hiyare.**

**Also the GIS component planned for documenting the distribution of target species could not be completed due issues with Esri software supplied by University of Edinburgh.**