

A REMARKABLE NEW SPECIES OF RANID (ANURA: RANIDAE), WITH PHYTOTELMONOUS LARVAE, FROM MOUNT HARRIET, ANDAMAN ISLAND

Indraneil Das

Centre for Herpetology, Madras Crocodile Bank Trust, Post Bag 4, Mamallapuram, Tamil Nadu 603 104, India
(with three text-figures)

ABSTRACT.- A new species of ranid, tentatively assigned to the genus *Rana* (sensu Boulenger, 1920) is described from Mount Harriet National Park, South Andaman Island, India. The new species, *R. charlesdarwini*, is diagnosed by the following suite of characters: tympanum large, exposed; lingual papilla absent; digit tips swollen but not dilated, lacking circummarginal grooves; ova pigmented, relatively numerous; the single adult male known smaller than two adult females and shows a median vocal sac and smooth nuptial pads on upper surface of first finger. Its phytotelmonous larvae from water-filled holes of trees have robust, dark-pigmented jaw sheaths that are situated terminally.

The new species appears allied to Indo-Chinese and Indo-Malayan ranids assigned to the genus *Ingerana* Dubois, 1987, although it shows numerous, relatively small, pigmented ova, and in lacking disks on digits and circummarginal grooves, as well as a median lingual papilla, cannot be placed in either of the two subgenera, *Ingerana* or *Liurana* Dubois, 1987. Generic placement of the Andamanese species is tentative, pending collection of further examples of its poorly known presumed relatives from south-east Asia, as well as data on their life history. The lowered sea levels during the post-Pleistocene are hypothesized to have facilitated the immigration of species from Indo-China, across the Rakhine (Arakan) Yoma corridor.

KEY WORDS.- *Rana charlesdarwini*, new species, Anura, Ranidae, systematics, Andaman Islands, India.

INTRODUCTION

Mount Harriet National Park (10° 43' - 11° 51' N and 92° 43' - 92° 47' E), comprises a series of mountains in the South Andaman Island, India. The summit of Mount Harriet is at an altitude of 365 m above msl. Forest types represented include tropical evergreen and moist deciduous forest. The landscape is undulating, with several hill ranges, and in the South Andamans, drainage flows into creeks that ultimately lead to the eastern shores (Oldham, 1885). The mineral composition of the soil includes gritty sandstones, siltstones and clays, locally with abundant nummulitic fossil contents, the microfossil assemblage indicating a Middle Eocene (Kirthar) age (Karunakaran, 1968).

An assessment of the vertebrate biodiversity of the region was conducted between 20 August and 3 September, 1997, in order to gather baseline data on species occurrence and

habitat use. A series of a ranid, including larval stages, collected during these surveys was found new to science and is being described as a new species.

MATERIALS AND METHODS

The adults in the type series were hand collected; the larvae scooped out of a tree hole, both fixed in formalin. The adults were transferred to 70% ethanol within four months of collection. The larvae were retained in formalin. Measurements were taken with a Mitutoyo™ dial vernier caliper (to the nearest 0.1 mm). Details of measurements have been provided in Das and Chanda (1997). In addition, length of digits were taken from the distal subarticular tubercle to the tip of the digits. Sex was confirmed through examination of the gonads. Nomenclature of adult colouration follows Smith (1975; 1981), colour notes taken from Fujichrome 100 ASA slide