

# Occurrence of Marbled Balloon Frog, *Uperodon Systema* (Schneider, 1799) from Aurangabad (M.S.), India

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Keywords	Abstract
Survey Recovered University campus Aurangabad Amphibians	During the survey of amphibians from University campus of Aurangabad (M.S.), India two specimens of marbled balloon frog were recovered near the botanical garden. Biodiversity study of amphibians from the university campus was not carried out before this study thus it forms the first study of amphibians and also occurrence of the marbled balloon frog from Marathwada region. The study was carried out during the year June 2009. The morphometric characters of this frog is taken into consideration while studying.

## 1. Introduction

The amphibian fauna, functionally being an important component of most terrestrial and freshwater ecosystems, contributes significantly to the biodiversity of a given area and serves as the best indicator of environmental health (Blaustein *et al.*, 1994). The amphibian fauna of Maharashtra state is studied by Padhye and Ghate (2002), Sekar (1999) gives the checklist of amphibians from Maharashtra.

Amphibians play an important role in the ecosystem as secondary consumers in food chains, bio-monitors in controlling insect pests and also as excellent ecological indicators owing to their high degree of sensitivity to even a slight change in the environment (Lips, 1998). The global decline in the amphibian populations in recent years is alarming and is a matter of great concern for biologists (Daniels, 2003). The present survey was made to emphasize the diversity of anurans in and around Aurangabad region.

## Study area

The study area consists of University campus of Aurangabad which includes various gardens as well as many small ponds situated within the campus. The university campus is located in the vicinity of hills and away from Aurangabad city (M.S.), India. Thus it is free from any urbanization and anthropogenic activity. Due to which this campus has got tremendous undisturbed flora and fauna.

## 2. Methodology

The regular collections of amphibians from university campus were made from different locations of the study area during the period of June 08 to May 09, mainly in the early morning and late evening capturing by hands. All the water bodies were sampled for aquatic amphibians and soil was dug to determine the presence of burrowing frogs. Specimens were then placed in a jute bag (to prevent suffocation), and area of inspection of each individual frog was recorded. Specimens were then transferred to the respective terrarium for captive care until they were examined for morphological parameters (Gupta, 1998). All specimens were examined and carefully identified using diagnostic keys by Boulenger (1890), Daniel (1963), Daniel and Shull (1963) and Dutta (1992).

## Description

The marbled balloon frog is fossorial by nature venturing out of its burrow during monsoon. The specimen was caught during the period of heavy rains. The morphometric measurements such as snout-vent length (SVL); head length (HL); head width (HW); Eye length (EL); eye to nostril distance (EN); distance between nares, IND; distance between the anterior margin of the eyes (eye-eye distance) (EE); tympanic membrane height (TYH); tympanic membrane length (TYL); Fore arm length (ARM); tibia length (TL); thigh length (TH) ; foot length (from proximal border of inner metatarsal tubercle to tip of fourth toe) (FL) were taken (Table 1).

Table 1 Morphometric measurements of marbled balloon frog, *Uperodon Systoma* (Schneider, 1799) recovered from University campus of (M.S.) India Aurangabad,

Parameters	Measurements (mm)
Sex	Female
Snout to vent length (SVL)	74.12
Head length (HL)	12.37
Head width (HW)	16.97
Eye length (EL)	7.05
Eye to nostril distance (EN)	2.21
Distance between nares (IND)	6.75
Eye to eye distance (EE)	11.22
Tympanic membrane height (TYH)	2.45
Tympanic membrane length (TYL)	2.84
Forearm length (ARM)	45.89
high length (IH)	32.12
Tibia length (TL)	22.67
Foot length (FL)	25.52

During this study there was two specimens of balloon frog one was an adult female and the other one a young frog which was not fully matured and both of them are deposited in University Campus, Departmental Museum with a proper label. The dorsum of the specimen was marbled extensively with yellow and dark brown, the ventral surface was pale yellowish to whitish in appearance. Skin smooth to weakly tuberculated dorsally while the venter was smooth all through. Head small, broader than long, nostrils equidistant from the tip of the snout and the eyes, pupil rounded; snout blunt and as long as the diameter of the eye; tympanum hidden; fingers free, toes short with rounded tips and partially webbed.

Fig. 1: *Uperodon Systoma* (Schneider, 1799)



#### Classification

Kingdom	: Animalia
Phylum	: Chordata
Class	: Amphibia
Order	: Anura
Family	: Microhylidae

Genus	: <i>Uperodon</i>
Species	: <i>systoma</i>
Common name	: marbled balloon frog.

#### Material examined

Habitat	: Near Botanical Garden, University campus, Aurangabad.
Date of collection	: 07/07/2009
No. of specimens collected	: 01 (female) and 01 (young frog)
Weight	: 15.2 gm and 8.32 gm respectively.

#### Diagnostic characters

Large to medium sized, round burrowing frog, with toad like appearance. Snout short and blunt with small eye. Fore limbs without webs with rounded finger tip, first finger shorter than second. Hind limbs are short with rudimentary webs. Two well developed large and shovel shaped metatarsal tubercles present, inner very large, as long as the second toe. Tibio tarsal articulation reaches below to the shoulder when hind limbs are extended and bent.

#### Texture and colour

Skin smooth with few tuberculars. Dorsal body colored olive or brown with dark blackish brown marbled. Belly white.

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