

Amphibian diversity

of Tropical Forest Research Institute Campus, Jabalpur,
Madhya Pradesh



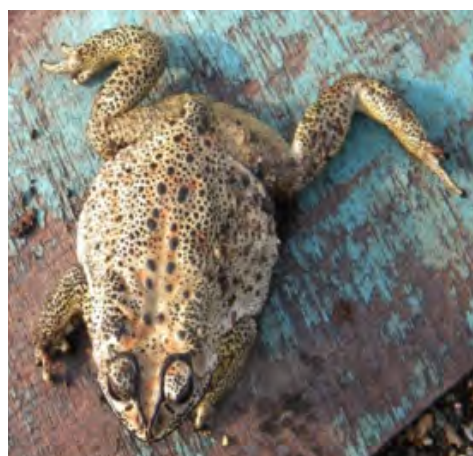
Hoplobatrachus tigerinus



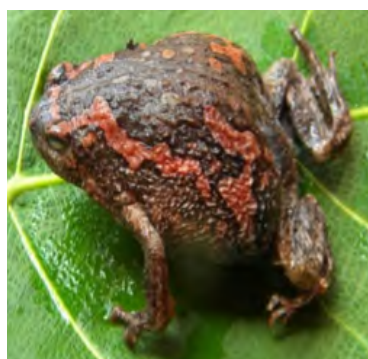
Euphlyctis cyanophlyctis



Fejervarya limnocharis



Duttaphrynus melanostictus



Uperodon taprobanicus



Polypedates maculatus

The Tropical Forest Research Institute (TFRI) is one of the nine institutes under the Indian Council of Forestry Research & Education. It is situated at Jabalpur of Madhya Pradesh state of Central India. It lies at the bank of the Gour River on Mandla Road (79°59'23.50"E & 21°08'54.30"N) about 10km southeast of Jabalpur. The campus is spread over an area of 109ha amidst picturesque surroundings. The area enjoys semi-arid type of climate with mean annual precipitation of 1,358mm. More than 57 shrub and tree species are either planted or naturally occur in the institute. The TFRI has several forest nurseries, experimental fields, plantation areas and residential colony. The dense vegetations of the



Google Map of Tropical Forest Research Institute Campus, Jabalpur

campus are provided shelter to number of wild animals. The campus is surrounded by agricultural field with rural inhabitation. The water reservoir and the vegetation planted around the institute have created a very good habitat and source of attraction for many faunal species like insects, amphibians, reptiles,

birds and mammals (Paunikar 2011; Tiple et al. 2010, 2012).

The present study was started to examine the amphibian's diversity and their distribution in and around TFRI Campus, since there was no published checklist of amphibians.

Regular field survey was conducted from June to September 2010 and 2011. The surveys were made in forest nurseries, plantation areas, experimental fields, residential colony, near Gour River and surrounding agricultural fields. The amphibian species available throughout the TFRI areas were caught, observed and released back in the same places. Some specimens were collected, preserved in 70% alcohol and identified using fields keys by Daniel (2002), Dinesh et al. (2009, 2012), and deposited in the Central Zone Regional Station, Zoological Survey of India, Jabalpur (*Polypedates maculatus* (V-6209), *Duttaphrynus melanostictus* (V-6210) and *Uperodon taprobanicus* (V-6211)).

Totally eight species of amphibians were observed: 1 bufonid, 4 ranids, 1 rhacophorid, and 2 microhylids. All eight species of amphibians are Least Concern.

Black-spectacled toad, Indian Green Frog and Skittering Frog were very commonly observed and most dominant amphibians species in the campus and found all the study areas. The Indian Bull Frog was found commonly in Gour River. Asian Grass Frog *Fejervarya limnocharis* and Common Indian Tree Frog *Polypedates maculatus* were occasionally recorded in the study area, but not commonly found and they are categories



Table 1: Status of amphibians in and around TFRI, Campus

Sno	Family	Common Name	Scientific Name	Status in TFRI Campus	IUCN status
1	Bufonidae	Black-spectacled Toad	<i>Duttaphrynus melanostictus</i> (Schneider, 1799)	VC	LC
2	Ranidae	Indian Green Frog	<i>Euphlyctis hexadactylus</i> (Lesson, 1834)	VC	LC
3		Indian Bull Frog	<i>Hoplobatrachus tigerinus</i> (Daudin, 1803)	C	LC
4		Indian skittering Frog	<i>Euphlyctis cyanophlyctis</i> (Schneider, 1799)	VC	LC
5		Asian Grass Frog	<i>Fejervarya limnocharis</i> (Gravenhorst, 1829)	NR	LC
6	Rhacophoridae	Common Indian Tree Frog	<i>Polypedates maculatus</i> (Gray, 1834)	NR	LC
7	Microhylidae	Sri Lankan Painted frog	<i>Uperodon taprobanicus</i> (Parker, 1934)	R	LC
8		Indian Balloon Frog	<i>Uperodon globulosus</i> (Schneider, 1799)	R	LC

LC- Least Concern, VC - Very Common, C - Common, NR - Not Rare, R - Rare

as not rare. The Asian Grass Frog was found in the forest nurseries, forest plantations areas, residential colony, river and in agricultural field and Common Indian tree frog was found only in forest nurseries, forest plantations and residential colony. The occurrence of species like Sri Lankan Painted frog *Uperodon taprobanicus* and Indian Balloon Frog *Uperodon globulosus* is also interesting and found very rarely in forest nurseries and residential colony of the campus, only two-three specimens were collected during the study period (Table 2).

We observed the populations of amphibian species more in different areas of TFRI such as forest nurseries, plantations, and residential colony as compared to agricultural fields. It was also found that the farmers has been extensively used chemical fertilizers and pesticides in their field during the cropping season and burn and clean the woods, logs and dried leaves from the fields.

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Table 2: Distribution of amphibian's species in and around TFRI Campus

Sno	Amphibian species	TFRI forest nurseries	Forest plantations	TFRI residential colony	Gour river	Agricultural field
1	Black-spectacled Toad <i>Duttaphrynus melanostictus</i>	+	+	+	+	+
2	Indian Green Frog <i>Euphlyctis hexadactylus</i>	+	+	+	+	+
3	Indian Bull Frog <i>Hoplobatrachus tigerinus</i>	-	-	-	+	-
4	Indian Skittering Frog <i>Euphlyctis cyanophlyctis</i>	+	+	+	+	+
5	Asian Grass Frog <i>Fejervarya limnocharis</i>	+	+	+	+	+
6	Common Indian Tree Frog <i>Polypedates maculatus</i>	+	+	+	-	-
7	Sri Lankan Painted Frog <i>Uperodon taprobanicus</i>	+	-	+	+	-
8	Indian Balloon Frog <i>Uperodon globulosus</i>	+	-	+	-	-

+ Present, - Absent

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