

## Project Update: July 2017

Permission to do research in Upper Drangme Chhu river basin was received only on 3<sup>rd</sup> May 2017. Then a preliminary visit and consultation with Trashigang Forest Division was made in the 2<sup>nd</sup> week of May. In the 3<sup>rd</sup> week of May, two foresters from Doksum Forest Range and two villagers were trained about methodology of the project. Field visits with trained personnel were conducted in the 4<sup>th</sup> week of May, 1<sup>st</sup> and 3<sup>rd</sup> week of June, and 1<sup>st</sup> week of July, 2017 in the Upper Drangme Chhu River basin.

## Results

**Species Diversity recorded:** A total of 19 sampling reaches have shown the presence of frog species. In total, seven different species belonging to the genera *Amolops*, *Meophrys* and *Euphlyctis* were observed in the study area. They are: *Amolops* sp. (SVL: 2.7cm), *Euphlyctis* sp1 (average SVL: 3cm (M) and 3.4cm (F)), *E. sp2* (average SVL: 5.4cm), *E. sp3* (average SVL: 4.5cm), *Xenophrys* sp1 (SVL: 4.6cm), *X. sp2* (average SVL: 5.2cm), *X. sp3* (average SVL: 9cm) and *X. sp4* (average SVL: 4.4cm). For identification up to species level, DNA samples have been collected and sent to Wildlife Institute of India for DNA analysis which will be updated later reports.



Fig.1. *Amolops* sp.



Fig.2. Right: *Euphylctis* sp1; Left: *Euphylctis* sp2



Fig.3. Right: *Megophrys* sp1; *Megophrys* sp2



Fig.4. Right: *Megophrys* sp3; *Megophrys* sp4

**Habitat patterns:** A lone *A. panhai* was observed near the stream at an altitude of 983 m and latitude and longitude of N 27°28'07.73" and E 091°36'24.26" respectively where *Chromolaena odorata* is the dominant in such habitat. *E. spp* were observed to be inhabiting the marshy areas (dominated by *Galingsoga parviflora*), ponds and paddy fields at an altitude range of 737–1831m and latitude range of N 27°17'58.99"- N 27°28'15.39" and longitude range of E 091°27'38.66"-E 091°36'25.51". While the *X. spp* were observed in the streams at an altitude range of 1274-1998 m and latitude range of N 27°28'26.85" – N 27°30'17.00" and longitude range of E 091°32'45.09"- E 091°34'51.86" where *Alnus nepalensis* is the most dominant tree species and *Ageratina adenophora* is the dominant shrub species in such habitats.



Fig.5. Photos showing: Right: Habitat Sampling; Left: searching frog species

**Threats Observed:** The frog species are mainly threatened by habitat destruction and fragmentation. Road constructions and expansions for the Kholongchhu Hydro Project seem to be major causes. However, forest fires, sand extraction, stone quarries, cattle grazing, settlements, waste dumping, erosion and agriculture are also unavoidable factors in the Upper Drangme Chhu River basin. In such areas no single species is found indicating immediate threats to the frog species.



Fig.6. Photos showing Habitat destruction due to in Upper Drangme Chhu River Basin: Right: Road Expansion; Left: Forest fire