

FAUNA OF PROTECTED AREAS - 10:
NOTE ON AMPHIBIANS OF BARDA
WILDLIFE SANCTUARY, GUJARAT

Raju Vyas

Sayaji Baug Zoo, Vadodara, Gujarat 390018, India

The Barda Wildlife Sanctuary (21°42'-21°54'N & 69°39'-69°49'E) an important protected areas in Gujarat was established in 1979 by the Forest Department of Gujarat. The Sanctuary is a hilly and rocky terrain with low covered vegetation. According to Champion and Seth (1968) the forest is classified as sub-group of southern tropical dry deciduous forest and northern tropical thorn forest. The climate is tropical and semi arid, monsoon is short and erratic. The average annual rainfall recorded in the last 10 years was 650mm. The area is drought prone. Winter is cool and dry, December and January are the coldest months during which the night temperature falls down to 8°-10°C. Summer is severe, May and June usually being the hottest months of the year with temperatures rising up to 42°C. Information on species and status of amphibians of BWS is not available from any past relevant literature. A rapid inventory was carried out in BWS during October 2000 to June 2001. Totally, 24 days (8h/day) of day and night fieldwork were conducted in four visits to BWS covering all seasons.

In addition to the present inventory on amphibians, secondary information was gathered from local people of surrounding villages, forest personnel and wildlife enthusiasts, on different species of amphibians by interviewing and showing colour pictures of species. The entire area of 192.31km² was divided into small zones. Each zone was randomly explored on the basis of habitat structure, possibility and availability of the species. All important, major and minor perennial water bodies including seasonal river pools and wet pockets were extensively explored for aquatic species.

All the collected specimens were examined and, carefully identified by using diagnostic keys of Boulenger (1890), Daniel (1963a, 1963b, 1975) and Daniels (1997a, b, c). Nomenclatures

Table 1. A list of amphibians recorded at Barda Wildlife Sanctuary, Gujarat.

English name	Scientific name
Bufonidae	
Common Asian Toad	<i>Bufo melanostictus</i>
Marbled Toad	<i>Bufo stomaticus</i>
Microhylidae	
Ornate Narrow-mouthed Frog	<i>Microhyla ornata</i>
Ranidae	
Indian Skipping Frog	<i>Euphlyctis cyanophlyctis</i>
Indian Bull Frog	<i>Hoplobatrachus tigerinus</i>
Cricket Frog	<i>Fejervarya limnocharis</i>
Unidentified Frog	<i>Fejervarya</i> sp.
Short-headed Burrowing Frog	<i>Sphaeroteca breviceps</i>
Indian Tree Frog	<i>Polypedates</i> sp.

Table 2. Amphibian species recorded in different water bodies at Barda Wildlife Sanctuary

Name of the water body	Bm	Bs	Mo	Fl	F	Ec	Ht	P
Dhola Ghuno	P	A	P	P	P	P	P	A
Kileshwar Check Dam	P	P	P	P	P	P	P	A
Parashiya Talaw	P	P	P	P	P	P	P	A
Causeway	P	P	A	P	P	P	A	A
Gulab Sagar	P	P	A	P	P	P	P	A
Sat Sagar	P	P	A	P	A	P	A	A
Bari Talaw	P	P	P	P	P	P	P	A
Fodala Nes Dam	P	P	A	P	P	P	A	A
Khanbhala Dam	P	P	A	P	A	P	A	A
Godhatad Dam	P	P	A	P	P	P	A	A
Aabhapara waterbodies (cluster of 3)	P	P	P	P	P	P	P	P
Sonkansari Talaw	P	P	A	P	P	P	A	A

Bm - *Bufo melanostictus*; Bs - *Bufo stomaticus*; Mo - *Microhyla ornata*; Fl - *Fejervarya limnocharis*; F - *Fejervarya* sp.; Ec - *Euphlyctis cyanophlyctis*; Ht - *Hoplobatrachus tigerinus*, P - *Polypedates* sp.; P - present; A - absent.

adopted here are those of Dutta (1997).

Totally nine species of toads and frogs belonging to three families and seven genera were recorded from the Sanctuary (Table 1), including an unidentified species belonging to genus *Fejervarya*. A rich amphibian diversity was recorded at Abhapara waterbodies (a cluster of three water bodies), where all the eight species of frogs and toads, including a species of tree frog belonging to Rhacophorinae subfamily was recorded. Only four species of frogs and toads were noted at Sat Sagar and Khanbhala Dam, which shows low amphibian diversity (Table 2). Most abundant anuran species found in the area were Marbled Toad (*Bufo stomaticus*), Common Asian Toad (*Bufo melanostictus*), Indian Skipping Frog (*Euphlyctis cyanophlyctis*), Cricket Frog (*Fejervarya limnocharis*) and Indian Tree Frog (*Polypedates* sp.). Also, few specimens of Short-headed Burrowing Frog (*Sphaeroteca breviceps*) were found in agricultural fields near the Bileshwar temple at the adjoining area of the Sanctuary

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