



**Addressing the taxonomic & geographic shortfall for amphibians and reptiles using specimen data from the collection of Bombay Natural History Society, Mumbai, India**

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# PROJECT OBJECTIVES

- To resolve taxonomic ambiguities of Indian reptiles and amphibians and understand their distributional ranges by extracting morphological, geographic and ecological information associated with museum specimens.
- Create digital database collating information about collector, identifier, repository details, field notes, published literature etc.
- Map species distribution based on species occurrence records.
- Create database linking species-specific images with the catalogue to help future researchers.

## DATA SOURCES

The BNHS museum holds around 10,000 specimens of reptiles and amphibians collected from across the Indian Subcontinent over a period of 135 years.

The primary data source to be used for this project are the specimens and associated metadata.

This will be supported by secondary information from published literature.

# PROJECT TIMELINE

Activity	2019								2020			
	M	J	J	A	S	O	N	D	J	F	M	A
Activity: Project initiation: Meeting of team members to brief about project requirements, design schedule and standardize data tables, acquire essential equipment and compile raw data	X											
Activity: Entering raw data from registers into excel sheets and inter-related tables	X	X	X	X			X					
Activity: Photography and image processing workshop		X										
Activity: Specimen photography using focus stacking and image processing	X	X		X		X	X	X	X	X		
Mandatory attendance of a project team member to the BIFA Capacity Enhancement Workshop (expenses for attending the workshop are covered by the BIFA programme)			X									
Activity: Meeting of team members to discuss and rework project plan based on learning from BIFA Capacity Enhancement Workshop			X									
Activity: Identifying and sorting amphibian and reptile specimens using morphological characters and measurements, data analysis for species delimitation		X	X	X	X		X	X		X	X	
Activity: Preparing interim report and uploading publishing dataset					X	X						
Deadline for mid-term report – 31 October 2019 Mandatory milestones attached to the mid-term report: - Gain certification at BIFA Capacity Enhancement Workshop - At least one dataset has been published to GBIF.org						X						
Activity: Geo-referencing species occurrence localities			X	X	X		X	X	X	X		
Activity: Visiting local museums to study type specimens and resolve taxonomic ambiguities							X		X	X	X	
Activity: Stakeholder meeting towards digitization and project promotion									X			
Activity: Create species distribution maps and refer historical data to fill gaps					X			X	X	X		
Activity: Compile and update data, create updated data sets, data papers and final report										X	X	
Deadline for final reporting – 30 April 2020 Mandatory milestones attached to the final report: - All deliverables have been produced - Sustainability and next steps have been documented												X

# PROJECT SUSTAINABILITY

- Stepping stone towards digitization of faunal specimens housed in the BNHS collection.
- Digitized information will be updated frequently based on additional specimens, taxonomic changes, new geographic information etc.
- On successful completion of project, similar studies will be planned in collaboration with other museums to strengthen and update the database.
- Workshop to promote importance of data mobilization will be conducted towards the end of the project to seek potential collaborations for long-term digitization projects.
- Occurrence data can be shared with IUCN to effectively identify threatened fauna and thus initiate conservation and policy planning.

THANK YOU

*Hemidactylus kangerensis*

BNHS 2484  
HOLOTYPE

