

TEACHER'S ACTIVITY REPORT 2016 - 2021

FACULTY: Science	DEPARTMENT/ COMMITTEE Environmental Sciences	IQAC ACTIVITY No: SVC 2017-18 EVS RS 1	
NAME OF THE ACTIVITY:			
DATE	FACULTY	DEPARTMENT/COMMITTEE	COORDINATOR NAME
28 - 30 July 2017	Science	Environmental Sciences	Dr. Robin Suyesh Dr. Rajender Phartyal
TIME:	VENUE	NUMBER OF PARTICIPANTS	NATURE: Outdoor/Indoor
	Western Himalayas, HP	6	Outdoor
SUPPORT/ASSISTANCE:	Environmental Sciences and Zoology, Sri Venkateswara College		

BRIEF INFORMATION ABOUT THE ACTIVITY (CRITERION NO. -):

TOPIC/SUBJECT OF THE ACTIVITY	2nd Field Trip to Himachal Pradesh for conducting ecological studies (July 2017)
OBJECTIVES	Bioacoustics Survey and recording of cicadas/amphibians of Western Himalayas
METHODOLOGY	Field Trip
OUTCOMES	<p>Acoustic recording and survey of cicadas/amphibians conducted by the students of college in the protected areas of Western Himalayas of Dalhousie</p> <p>Project name: “Introducing students to field biology: Understanding ecology and behaviour of unexplored high altitude mountain dwelling amphibians”</p> <p>Detailed report below</p>

PROOFS & DOCUMENTS ATTACHED (Tick mark the proofs attached):

Notice & Letters	Student list of participation	Activity report	Photos	Feedback form
Feedback analysis	News clip with details	Certificate	Any other	

IQAC Document No:	Criterion No:	Metric No:
Departmental file no	IQAC file No;	

NAME OF TEACHER & SIGNATURE	NAME OF HEAD/ COMMITTEE INCHARGE & SIGNATURE	IQAC COORDINATOR (SEAL & SIGNATURE)

For Reference

Criterion I	Curricular Aspects (planning & Implementation)	Criterion V	Student Support & Progression
Criterion II	Teaching Learning & Evaluation	Criterion VI	Governance
Criterion III	Research, Innovations & Extension	Criterion VII	Institutional Values & Best Practices
Criterion IV	Learning Resources and Infrastructure		

Report Attached

“Introducing students to field biology: Understanding ecology and behaviour of unexplored high altitude mountain dwelling amphibians”

Progress Report

DBT- Star



Department of Zoology

Sri Venkateswara College



FACULTY MEMBERS

Dr. P S Dhanaraj (Associate Professor, Department of Zoology, Sri Venkateswara College)

Dr. Robin Suyesh (Assistant Professor, Environmental Studies, Sri Venkateswara College)

Dr. Rajendra Phartyal (Assistant professor, Zoology, Sri Venkateswara College)

Students involved (Total)

1. Abdus Samad, Bio Science
2. Abishek Singh, Bio Science
3. Megha Srigyan, Biochemistry

Current Students

4. Soumya Mallick, Zoology
5. Ishrat Jahan, Botany
6. Surabhi, Life Sciences
7. Prateek Yadav, Bio Sciences
8. Tharanirakhita, Zoology
9. Sukanya Bhuyan, Zoology

Understanding ecology and behaviour of unexplored high altitude mountain dwelling amphibians

The current project is a small step towards a bigger objective as it will not only create awareness in students about the importance of amphibians but also train them in conducting ecological and behavioral study using amphibians/insects as model organism.

The study is being conducted with the following objectives:

1. To train students to conduct observational breeding biology and ecological studies using amphibian as model organism.
2. To train students to record and analyze acoustic data from the amphibians/cicadas.
3. To train students to identify and monitor amphibian population and delimit a species geographic range through acoustic spot sampling.

Current Progress

Students were given initial training about how to conduct behaviour studies before the scheduled field trip (including the relevant scientific literature).



Two days field visit to one of our proposed study site, Dalhousie was conducted for behavioral and ecological studies on anuran amphibians. (The selected study sites include Dalhousie, Lahol and Spiti regions of Himachal Pradesh).

The fieldwork was done in Dalhousie, Panj Pula and Laholi Village to study the high altitude mountain dwelling anurans. During the study the tadpoles of certain anurans species were

identified (possibly *Nanorana vicina* based on an earlier study done on anurans of that locality).

They adults were not observed (due an unusual snow fall that happened in and around the study area). They study conducted was primarily focused on the habitat and identification of the possible threat for amphibians living in that locality.



Possible identified threats for amphibians

1. Tourism
2. Non-biodegradable waste dumping in hill streams
3. Deforestation
4. Noise pollution.
5. Chemical contaminants in streams.

Amphibians were observed in the second trip to Khajjiar but were not found vocalizing. The study was then taken to understand the vocal communication in the cicadas of western Himalayas

Understanding vocal behaviour of unexplored high altitude mountain dwelling cicadas

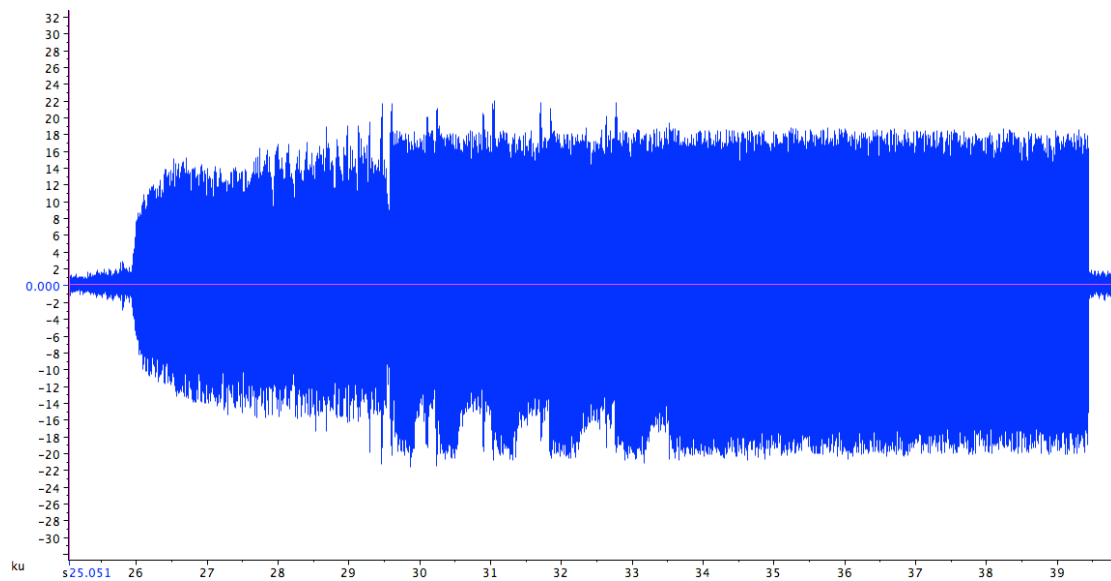


Methodology

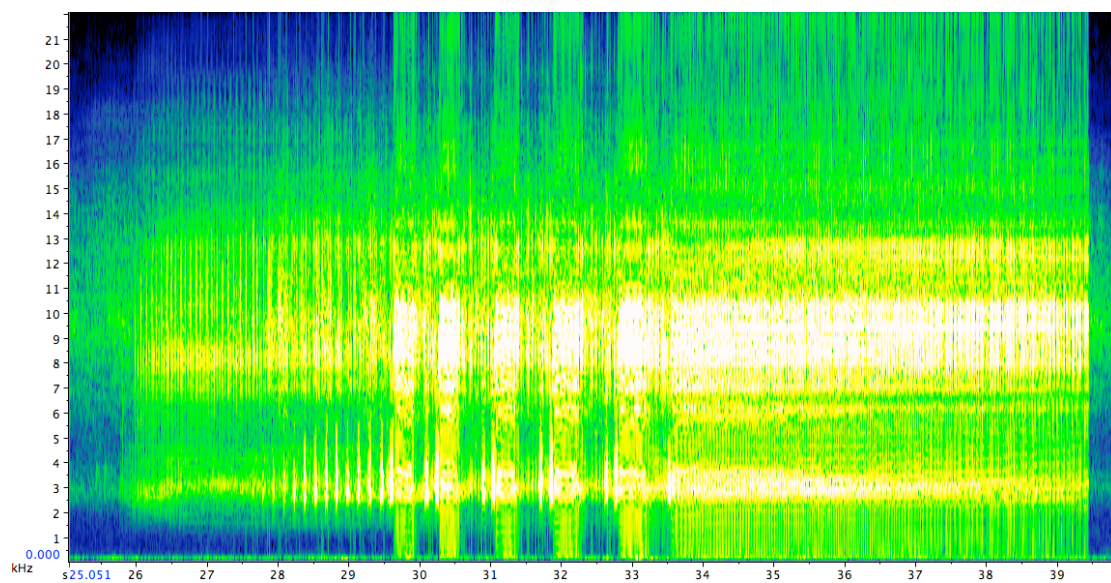
Sound Recording

The sound was recorded using digital solid-state recorder Zoom H6n mounted with a directional microphone (Sennheizer Me-67). Recording of 10 males was done to have a good sample size and a minimum of 20 calls was recorded from each male of the studied cicadas. The recording was utilized to study the vocal behaviour.

Sound Analysis (Currently in progress)



Waveform



Spectrogram

The sound analysis will be done using the Raven Pro 1.4. Acoustic properties will be studied from the analyzed calls.

Field images





SRI VENKATESWARA COLLEGE
(University of Delhi)

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A.O(I/C)

This is to certify that the Activity report (Teacher/Department /Society/Association)
has been submitted for documentation to IQAC, Sri Venkateswara College,
University of Delhi.

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