

CURRICULUM VITAE

Nivetha M

Email: nivethamurugesan8@gmail.com , nivetham@students.iisertirupati.ac.in

Mobile: 9176425324

Address: Indian Institute of Science Education and Research Tirupati
Rami Reddy nagar, Karakkambadi road, Mangalam P.O Tirupati 517507

Academic details

- Pursuing PhD in Dr. Nandini Rajamani's lab (since 2017) Indian Institute of Science education and Research (IISER) Tirupati
- B.Tech (Biotechnology), graduated in 2016. Rajalakshmi Engineering College, Thandalam, Chennai. (affiliated to Anna University) Have a cumulative grade point average of 8.42(out of 10). Some significant courses credited are environmental sciences, plant biotechnology, cell biology, microbiology, marine biotechnology, biochemistry, bioinformatics, Cancer biology, Neuroscience.
- HSC, passed in 2012. Velammal Matriculation and higher secondary school, Mugappair Chennai, Tamil Nadu. Have a percentage of 92.25.
- 10th class, passed in 2010. Velammal Matriculation Higher secondary school, Mugappair, Chennai, Tamil Nadu. Have a percentage of 95.6.

Research experience

- For my PhD dissertation, I study evolution of phenotypic and behavioural traits in rodents, especially squirrels. I examine adaptation of coat color and pattern features of palm squirrels with climate and visual perception of predators. Using comparative genomics, I examine selection signals and phenotypic associations for coat colour across several rodent species. I plan to investigate the evolutionary history through major climatic events; of closely related palm squirrels species with varied coat color features in a comparative framework.
- At Dr. Nandini Rajamani's lab, I worked on a project that aims at studying evolution of sexual shape dimorphism in gliding mammals, using geometric morphometric tools, to understand the pattern in a phylogenetic framework.
- As part of the Evolutionary and Phylogenetic Analysis course offered in IISER Tirupati, I did a project to estimate the divergence times of Island fox populations, using Single Nucleotide Polymorphisms.
- Dissertation project titled 'Levels of chlorpyrifos and endosulfan in select components of the River Bhavani and their impact on the Acetyl Cholinesterase activity in fish,' with Dr.S.Muralidharan, Senior Principal Scientist, Division of Ecotoxicology, Salim Ali Centre for Ornithology and Natural History (SACON).

Teaching experience

Served as a teaching assistant (TA) for two courses at IISER Tirupati:

- Ecology and Evolution (BIO 211) – Regular and remedial tutorials
- Introductory Biology (BIO 111)

Employment experience

Worked as a Project Professional in Shri AMM Murugappa Chettiar Research Centre, for four months (15th June to 4th October 2016). I was involved in a project that aims at providing Integrated solar energy to village communities, with a significant focus on post-harvest solutions (Solar powered refrigerator and dryer).

Areas of interests

Evolutionary biology, Bioinformatics, Genomics, Image Analysis, Data Science

Conferences and workshops participated

- Participated in the Citizen Science India 2020 Virtual Conference
- Presented a poster titled 'Evolution and significance of signalling traits in squirrels' at the Biology day symposium at IISER Tirupati (<https://doi.org/10.6084/m9.figshare.13140164.v3>)
- Participated and presented a poster titled 'Vocalization interactions between squirrel and bird communities: habitat selection, camouflage or niche partitioning?' in the second National Symposium of Avian Biology, held at IISER Tirupati.
- Participated and presented a poster titled 'Acoustic signals of species recognition in palm squirrels' in the bioacoustics training workshop led by the Cornell Lab of Ornithology at IISER Tirupati.
- Participated in the 'Next Generation Sequencing and Population Genomics' workshop led by Dr. Nagarjun Vijay, at IISER Tirupati.
- Presented a poster titled 'Evolution of Sexual Shape Dimorphism in Gliding mammals' (<https://doi.org/10.6084/m9.figshare.5808315>) at YETI 2018. Currently, working to understand the patterns of sexual shape dimorphism under a phylogenetic framework.
- Participated in the Student Conference on Conservation Science (SCCS), 2018.
- Participated in the All India Synchronized Elephant Population Estimation, May 2017.
- Attended the Regional Conference on Environment (Southern Zone), 2016, organized by National Green Tribunal.
- Participated in a training program on 'Solar energy' given by Entrepreneurship Development Institution of India.
- Participated in the workshop on 'Protein purification and PCR' in Aristogene biosciences, Bangalore.
- Attended the conference on Neurobiology, conducted by the IIT, Madras, Biofest 2014.

Reviews

Reviewed two research papers in the Current Science journal.

Extracurricular activities

- Have parallel interests in communicating science, eco-politics and eco-philosophy in regional languages.
- Authored a short book on ecological aspects of light pollution called 'Oliyile Therivadhu' in Tamil.
- Participated in media discussions regarding sexual harassment and discrimination issues.
- Authored short stories and poems, some of which were published in contemporary Tamil magazines. Actively participated in several environmental awareness programs and literary meets.
- Volunteered in Palni Hills Conservation Council (PHCC, Kodaikanal) for a month to understand conservation efforts involving local communities.