

# Vishal Nandha Kennedy

Ph.D. Candidate

University of Tennessee-Knoxville, Ecology and Evolutionary Biology Department

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## FIELDS OF EXPERTISE

Biochemistry, Chemical Ecology, Evolutionary Biology, Field Work, Plant biology, Molecular biology, Organic chemistry, Organic synthesis, Advanced Spectroscopy, Biostatistics, Scientific Communication, Genetics, Ecology & Conservation.

## EDUCATION

- Aug.2021 - Present      **Ph.D. in Ecology and Evolutionary Biology.**  
*University of Tennessee – Knoxville (UTK).* Advisor: Dr. Jessica Budke.
- Aug.2016 – Aug.2021      **BS-MS in Biological Sciences.**  
*Indian Institute of Science Education & Research – Kolkata (IISER-K).*

## WORK AND RESEARCH EXPERIENCE

- May.18 - Aug.18      **Research Internship I under Dr. Radhika Venkatesan, NCBS Bangalore**  
*Chemical Ecology & Natural Product Biosynthesis*  
Biosynthesis of Herbivore-induced volatile emission in Brassica oleracea in attracting herbivoreenemies (*Costesia Vestalis*) against the herbivore (*Plutella xylostella*).
- May.19 - Aug.19      **Research Internship II under Dr. Trinath Jamma, BITS-Pilani - Hyderabad**  
*Stress tolerance in plants*  
Cell Stress using Cell culture techniques, Cryo-preservation, and advanced microscopy
- Aug.20 - Aug.21      **MSc Thesis under Dr. Radhika Venkatesan, IISER-Kolkata**  
*Chemical Ecology & Biochemistry*  
Topic: Understanding Resource allocation Trade-offs in plants by studying plant secondary metabolites in Brassica napus (Canola / Rapeseed) through applied plant biochemistry.
- Jun.21 - Aug.21      **Project under Prof. Jacqueline Batley, UWA - Perth, Australia**  
*Summer Down Under Research Internship (SDURI) student*  
Genomics of Plant Pathogen Interaction - Finding candidate genes for Blackleg resistance in Brassica using Plant molecular biology and Genome editing with GWAS data (in RGAugury).
- Jan.22 - Aug.22      **Research Project under Dr. Vivek Pandi, MCNS – Manipal, India**  
*Plant systematics & Biochemistry*  
Exploring the plant biochemistry in Lianas to understand climbing behavior

## WORKSHOPS

- VIJYOSHI - 2016, 2017
- Frontiers in Modern Biology conference
- SERB School - Plant sciences
- OutsideIn - BLiSc Ecology
- Cornell's Diversity Preview Weekend (DPW-2021)

## OTHER COURSES

- Lab Safety and Ethics (NCBS - Bangalore)
- Academic\_Conduct (UWA - Perth)
- Communication and Research skills (UWA - Perth)
- Bioprocessing
- Data processing using Python & R

## LABORATORY SKILLS

Familiar with

- Plant biology techniques (including Growth Chamber & Greenhouse maintenance)
- Biochemistry & Organic synthesis
- Field works, Data handling, Biostatistics & Hypothesis testing
- Plant molecular biology techniques & Genomics
- Cell culture handling in a hood
- Proficiency in R & Python (Programming & Simulations)
- Microscopic techniques - Live imaging luminescence, SEM & TEM.
- Spectroscopy techniques: UV-Vis, IR, CD, NMR, immunofluorescence & Mass spectroscopy
- Image Analysis - ImageJ, PyMOL, Chimera

## AWARDS & HONORS

### Department of Science and Technology (DST) Fellowship - India

- awarded to top 1% of science students in India.

### Innovation in Science Pursuit for Inspired Research Fellowship, Ministry of Science & Technology - India

- *awarded to top 1% of student perusing Scientific research in India's premier institutions.*
- *includes monthly scholarship, yearly scholarship, and travel grants for internships during summer.*

### General Secretary of Student Affairs Council (SAC) - IISER - Kolkata

- *Head of student committees & outreach activities, Fund allocation and distribution.*

### Teaching Assistantship - Ecology & Evolutionary biology course - IISER-K

- *MSc Teaching assistantship for the batch of 2019 by The Department of Biological Sciences – IISER-K.*
- *Course instructors: Dr. Anuradha Bhat and Dr. Sumana Annagiri.*

### Manipal Research Assistantship – MCNS - Knoxville

- *₹ 20,000 + housing allowances*

### Teaching assistantship - Biochemistry Lab course (159) - UT Knoxville

- *Course Instructor: Dr. Crystal McAlvin*