## Faizee Ali Khan

Master's Student, Bird Lab, IISER Tirupati

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## **EDUCATION**

Indian Institute of Science Education and Research, Tirupati 2019-Present

Five year Integrated BS-MS Program (5th year)

CGPA: 8.5/10

(Class XII) Gurukul Public School, Kawardha

2017-2019

Central Board of Secondary Education

Secured 95%

(Class X) Gurukul Public School, Kawardha

2005-2017

Central Board of Secondary Education Secured 10/10 CGPA

# SKILLS

→ Analyzing large ecological databases(like eBird)

→ NGS and Phylogenetic analyses: Phyluce, IQtree, RAxML, MrBayes

Analytical  $\rightarrow$  Good understanding of GIS-QGIS

 $\rightarrow$  Bioacustic analysis techniques: Raven, Rraven

→ Community analyses, Parametric and non-parametric tests in R

Invasive Techniques: Mist-netting, Bird-ringing, taking measure-

ments and blood samples

Biodiversity Surveys: Have a good grasp on species identification

of Birds, Mammals, Reptiles, and Spiders.

FieldNon-Invasive Techniques: Fecal and spray sample collection, Cam-

era trapping, Automated Recorder deployment

**Driving:** Geared two wheeler and Four-wheel drive vehicles

Learning: Snake Handling

DNA extraction and PCR techniques Lab

NGS library preparation and enrichment

Proficient in English and Hindi, passable Urdu

Languages Can Code in: R, Python, Java, SQL

## RESEARCH & INTERNSHIP EXPERIENCE

Citizen Data Analyses | Seasonal elevational shifts

Jan 2023 - Present

PI: Dr. Robin V. V., Associate professor

Indian Institute of Science Education and Research, Tirupati, India

Collaborator: Vijay Ramesh, Rose Postdoctoral Fellow, Cornell Lab of Ornithology, USA

Title: Avian Elevational Migration in the Western Ghats of India.

Description: Using data from the citizen science initiative eBird; I calculated the seasonal

elevational range shifts in birds of Western Ghats, and modelled their association with ecological traits. Poster

## Phyogenetic Analyses | Partial migration

August 2022 - Present

PI: Dr. Robin V. V., Associate professor, IISER, Tirupati, India

Title: Investigating divergence patterns within resident and migratory populations of Grey-headed Canary-Flycatcher.

Description: I looked for signatures of cryptic speciation in the *Culicicapa ceylonensis* subspecies complex using integrative taxonomy and investigating whether the genetic divergence in the subspecies associated with migratory behavior. Poster

### Theoretical Ecology Lab | Summer Internship

June 2022 - July 2022

PI: Dr. Vishwesha Guttal, Associate Professor

Center for Ecological Sciences, Indian Institute of Sciences, India

Title: PyDaddy: Learning Models from Data

Description: In this project, I learned about non-linear dynamics and limit cycles in populations and ecological communities. Also learned how to build models from data using the Python package PyDaddy. Report

#### Fieldwork in Ranthambore Tiger Reserve

May 2022 - June 2022

PI: Dr. Uma Ramakrishnan, Associate Professor

National Centre for Biological Sciences, Bangalore, India

Title: Chemical Ecology of Tigers

Description: Collected tiger shed hair, urine spray, and fecal samples in Ranthambore Tiger Reserve, for the Ph.D. project of B. V. Aditi. I learned about planning field work and expenses, Tiger behaviour and tracking animals through indirect signs. Report

### Spider Community Assembly | Course Project

January 2022 - April 2022

Instructor: Dr. Robin V. V.

Title: The role of vegetation complexity on spider communities

About: As a part of Advanced Ecology(BIO327) course. I assessed the effect of vegetation structure on spider communities in the IISER-Tirupati Permanent Campus in different levels of anthropogenic disturbances, with the help of plot surveys, and vegan package in R. Report

# ${\bf Bird\ Lab,\ IISER\ Tirupati-Summer\ Internship}$

June 2021 - July 2021

PI: Dr. Robin V. V.

Title: Measuring song complexity between individuals of the White-bellied Sholakili

Description: The White-bellied Sholakili (Sholicola albiventris) has a highly complex repertoire and we measure between individual song complexity using a recently devised metric - the Note Variability Index (Sawant et.al, 2021). Report

# **CONFERENCES & WORKSHOPS**

ATBC 2023: Association of Tropical Biology Conference

2-6 July, 2023

Poster presentation on the degree of avian elevational migration in Western Ghats.

NSAB 2022: National Symposium on Avian Biology 9-11 November, 2022

**Oral Presentation** on divergence patterns within the widely distributed resident and migratory populations of Grey-headed Canary-Flycatcher.

## Molecular Phylogenetics Workshop(Online)

27 June - 1 July, 2022

Instructor: Kunal Arekar, Ph.D., IISc Bangalore

Basic principles and analysis methods necessary to undertake a molecular phylogenetic study.

**ISEB 3: International Evolutionary Biology Conference** 16-18 February, 2022 International Conference on Insect Systematics and Evolutionary Biology

Organized by the Indian Society of Evolutionary Biologists and University of Patiala. Attended Online.

# **RELEVANT COURSES**

Evolution Data Science Basics of Ornithology Microbiology Advanced Ecology Non-Linear Dynamics Genetics Biochemistry Animal Physiology

# **GRANTS AND FELLOWSHIPS**

### Chapman Research Grant for Ornithology: 2600 USD

2023

Secured The Frank M. Chapman Memorial Fund of the American Museum of Natural History to conduct a study using the bird collections at the AMNH.

### KVPY SX Fellowship: 348000 INR

2018 - Present

Secured The Kishore Vaigyanik Protsahan Yojana (KVPY) fellowship, a National Program of Fellowship in Basic Sciences.

## ADDITIONAL INFORMATION

- Content Writing Intern - Tirupati Biodiversity Program.

Writing - Research Article Summary for HerpBuzz Magazine 2022.

- Article on Dragonflies for Minuscules.in

- Coordinated Great Backyard Bird Count at IISER Tirupati, 2022.

Volunteer - Tirupati Bird Atlas Survey 2022.

- Tirupati Urban Bioblitz 2020

- Trekking and exploring places

- Climbing Trees or any tall structure

**Hobbies** - Meeting new people and experiencing cultures

- Playing the Flute

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