# Naman Goyal

Indian Institute of Science Education and Research - Tirupati

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### **Education**

<b>Year</b> 2019 – 2025 (submitted)	<b>Course</b> Ph.D Biology	Institution Indian Institute of Science Education and Research, Tirupati
2015 – 2017	M.Sc. Wildlife Sciences	Wildlife Institute of India, Saurashtra University
2014 – 2015 2010 – 2013	M.Sc. Wildlife Sciences B.Sc. (H) Biological Sciences	Amity University, Delhi University of Delhi

# **Research Experience**

2019

November 2018 - July Junior Research Fellow in "Biogeography of birds of peninsular India". Advisors - Dr. V. V. Robin, IISER-Tirupati

> I led the team in the collection of blood samples from various species of birds across peninsular India. I gained experience in mist-netting, the collection of blood samples from wild birds, and basic laboratory work

October 2017 -October 2018

Worked as a Project Fellow (Ecology) for "Developing a conservation action plan for the Ganges River Dolphin". Advisors - Prof. Qamar Qureshi, Dr. S. A. Hussain, and Dr. Vishnupriya Kolipakam, Wildlife Institute of India

I led a team in carrying out various boat surveys for mapping the distribution of the Ganges River Dolphin across multiple tributaries of the Ganges River. I also deployed C-Pods to record activity patterns of the dolphins at various places and explored various downstream analyses of bioacoustics datasets

June 2015 -September 2016 Contributed to 'Campus Biodiversity Program, Wildlife Institute of India'. Advisors - Dr. R Suresh Kumar and Dr. Manoj Nair, Wildlife Institute of India

I led the ringing of Puff-throated Babblers on the Wildlife Institute of India campus. I aided in mist-netting and the collection of morphometric data for various individuals of this species. I also collected data on resighted

individuals to understand how territory holding is related to bird breeding phenology

# January 2014 – June 2014

Interned for 'All India Tiger Monitoring Project-2014'. Advisors - Dr. Y V Jhala, Prof. Qamar Qureshi, and Ms. Neha Awasthi, Wildlife Institute of India

My work in this project involved the collection of behavioral data of Ungulate species, such as Spotted Deer and Sambar, at Kanha Tiger Reserve. I gained experience in conducting focal and scan samples and building ethograms. Furthermore, I assisted in setting up camera traps for mark-recapture based estimation of Tiger populations and radio-telemetry tracking of collared Tigers

# December 2013 – March 2014

Interned for 'Black Kite Project'. Advisors - Dr. Y V Jhala, Prof. Qamar Qureshi, and Mr. Nishant Kumar, Wildlife Institute of India

I aided in the capture and ringing of several individuals of Black Kites. Furthermore, I participated in the demonstration of placing satellite and GPS tags on Black Kites

## August 2013 – November 2013

Interned for Manu Bird Project, Peru, 'Exploring the role of biotic and abiotic factors in determining the elevational range limits of tropical animals'. Advisors - Dr. Scott K Robinson and Dr. Gustavo Londoño from the University of Florida, Dr. Mark Chappell from the University of California, Riverside, and Dr. Jill Jankowski from the University of British Columbia

In this project, I was involved in the collection of physiological data using field respirometry equipment for wild-caught birds. I also helped in locating bird nests for collecting nesting biology data. During this project, I also learnt mist-netting, ringing, and the collection of biological samples from wild birds

# December 2012 – April 2013

Interned for Project Black Kite 'Resource selection of Black Kites in urban landscapes of National Capital Region of India'. Advisors - Dr. Y V Jhala, Prof. Qamar Qureshi, and Mr. Nishant Kumar, M.Sc. student, Wildlife Institute of India

I was involved in searching for Black Kite nests across the city of Delhi. Once located, I assisted in monitoring of breeding biology of the Black Kites

# February, 2010 – March, 2010

Studied the 'Effect of pH on seed germination and growth of plants'. Advisor - Dr. Prasad, Sri Venkateswara College, University of Delhi

In this project, I led a small study to understand the effect of varying pH in soil on seed germination and plant growth. I got to learn how to set up basic experiments to test hypotheses

## **Publications**

#### Peer-reviewed Publications

- Vinay, K.L., Arvind, C., Goyal, N., & Robin, V.V. 2025. High-quality genome assembly of the endemic, threatened, White-bellied Sholakili Sholicola albiventris (Muscicapidae: Blanford, 1868) from the Shola Sky Islands, India. Journal of Heredity. esaf049. [*Link*]
- Viswanathan, V., et al. 2024. State of India's Birds 2023: A framework to leverage semistructured citizen science for bird conservation. Ecosphere 16(7): e70290. [*Link*]
- Goyal, N., Warudkar, A., Kolipakam, V., Pant, B., Sivakumar, K., Singh, P., Qureshi, Q., & Nair, M.V. 2024. Revisiting the systematic position of the enigmatic Nicobar Bulbul (*Ixos nicobariensis*). *Ibis*. 166:1059–1063. [*Link*]
- Warudkar, A., Goyal, N., Kher, V., Vinay, K.L., Chanda, R., Bandi, R.S., Jenkins, C.N., Robin, V.V., & Pimm, S.L. 2022. Using the area of habitat to assess the extent of protection of India's birds. *Biotropica*, 00, 1-14. [*Link*]
- **Goyal, N.** (2024). Nicobar Bulbul (Hypsipetes nicobariensis), version 2.2. In Birds of the World (S. M. Billerman and B. K. Keeney, Editors). Cornell Lab of Ornithology, Ithaca, NY, USA. [*Link*]
- Roy Chowdhury, G., Roy, K., Goyal, N., Warudkar, A., Raza, R., & Qureshi, Q. 2020. On the evidence of the Irrawaddy Dolphin Orcaella brevirostris (Owen, 1866) in the Hooghly River, West Bengal, India. Journal of Threatened Taxa. 12(8):15905-15908. [Link]
- **Goyal, N.**, Singh, P., Sivakumar, K., & Nair, M.V. 2019. Patterns in spatial segregation between the endemic Nicobar Bulbul and the introduced Red-whiskered Bulbul on two islands of Central Nicobars. *Wilson Journal of Ornithology*. 131(3): 650-658. [*Link*]

### Pre-prints

- **Goyal, N.**, Sharma, A., Jagati, V., Herur, A., Jain, A., Gopal, A., Joshi, J., & Robin, V.V. 2025. Spatial patterns of diversity in forest birds of peninsular India. Pre-Print [*Link*]
- Vinay, K.L., Goyal, N., Warudkar, A., Arvind, C., & Robin V.V. 2025. Genome assemblies for seven families of birds from the Global South. [Link]
- Sharma, A., **Goyal, N.**, Shah, D., & Robin, V.V. 2025. Using phylogenetic relationships to assess conservation priorities for birds in India. [*Link*]

#### News articles & Natural History notes

- Dhanda, A., Hubbard, L., & **Goyal, N**. 2024. Digest: Habitat and competition drive diversification in Gondwanan fish. *Evolution*. 78(5):1020–1021. [*Link*]
- Robin, V.V., & **Goyal, N**. 2024. Humboldt's enigma: Shola sky islands explained. *The Hindu*. [*Link*]
- Vinay K.L., **Goyal, N.**, & Warudkar, A. 2020. An aberrant White-rumped Shama *Copsychus malabaricus* with a white throat. *IndianBIRDS*. 16(3):95-96.
- **Goyal, N.** & Sood, S. 2018. Observations on the nesting of Egyptian Vulture *Neophron percnopterus* in the urban landscape of Noida, Uttar Pradesh, India. *BirdingASIA*. 29: 42-43

- **Goyal, N.** & Saxena, A. 2018. Oriental Pied Hornbill *Anthracoceros albirostris* hunts an adult Common Myna *Acridotheres tristis*. *IndianBIRDS*. 14(4):119.
- Bhandari, A. & **Goyal, N**. 2018. Changeable Hawk Eagle *Nisaetus cirrhatus* scavenging. *IndianBIRDS*. 14(5): 159.

## Upcoming publications

- **Goyal, N.**, Vinay, K.L., Kher, V., Joshi, V., Warudkar, A., Sharma, A., Natesh, M., & Robin, V.V. Genetic differentiation across biogeographic barriers in the Western Ghats, India. (In prep for Proceedings of the Royal Society B)
- **Goyal, N.**, Vinay, K.L., Joshi, V., Arvind, C., Warudkar, A., Sharma, A., Natesh, M., & Robin, V.V. Island size and gene flow impact genetic diversity in sky island endemic birds of the Western Ghats, India. (In prep for Molecular Ecology)
- Natesh, M., Vinay, K.L., Jagati, V., Goyal, N., Warudkar, A., Rayis, T.R., Vijay, N., & Robin, V.V. Demographic responses to historic climate change are contingent upon ecological specialization. (In prep for Ecology Letters)

#### Thesis

- Goyal, N. 2025. *Biogeography and Evolution of peninsular Indian forest birds*. PhD Thesis, Indian Institute of Science Education and Research Tirupati. Supervisor: Dr. Robin V.V.
- Goyal, N. 2017. Patterns in avian assemblages on two islands of the central Nicobar with emphasis on interactions between the endemic Nicobar Bulbul & the Red-whiskered Bulbul.
   M.Sc. Thesis/Dissertation, Saurashtra University, Gujarat.
   Supervisors: Manoj V Nair, K Sivakumar, Pratap Singh

#### **Presentations**

- Goyal, N., Vinay, K.L., Kher, V., Joshi, V., Warudkar, A., Sharma, A., Natesh, M., Vishnudas, C.K., & Robin, V.V. 2024. *Genetic differentiation across biogeographic barriers in peninsular India Comparing a physical barrier to a climatic barrier*. Oral presentation at the American Ornithological Society Meeting 2024.
- **Goyal, N.**, Natesh, M., and V.V. Robin. 2023. *Genetic differentiation across biogeographic barriers in peninsular India: Comparing a physical barrier to a climatic barrier*. Poster presented at the 59<sup>th</sup> Annual meeting of the Association for Tropical Biology and Conservation (ATBC), at Coimbatore, Tamil Nadu.
- Sharma, A., **Goyal, N.**, Vinay, K.L., and V.V. Robin. 2023. *Uncovering hidden diversity and speciation in the Indian Blackbird complex using phylogenomics*. Poster presented at the 59<sup>th</sup> Annual Meeting of the Association for Tropical Biology and Conservation at Coimbatore, Tamil Nadu.
- **Goyal, N.**, Natesh, M., and V.V. Robin. 2022. *Population structure and genetic differentiation in forest birds across a biogeographic barrier in the southern Western Ghats*. Oral presentation at the 4<sup>th</sup> National Symposium on Avian Biology at Gaya, Bihar.
- Khan, F.A., **Goyal, N.**, Sharma, A., and V.V. Robin. 2022. *Investigating cryptic diversity and divergence patterns in the resident and migratory subspecies of the Gray-headed Canary Flycatcher*. Oral presentation at the 4<sup>th</sup> National Symposium on Avian Biology at Gaya, Bihar.
- Sharma, A., **Goyal, N.**, Vinay, K.L., and V.V. Robin. 2022. *Phylogenetic position of three endemic birds of peninsular India Crimson-backed Sunbird, Malabar Whistling-Thrush, and Nilgiri Thrush*. Poster presented at the 4<sup>th</sup> National Symposium on Avian Biology at Gaya, Bihar.

- **Goyal, N.**, Natesh, M., Vinay, K.L., and V.V. Robin. 2022. *Population structure and genetic differentiation in forest birds of the Western Ghats across a biogeographic barrier*. Poster presented at Biology Day seminar at IISER, Tirupati, Andhra Pradesh.
- Sharma, A., **Goyal, N.**, Warudkar, A., Vinay, K.L., and V.V. Robin. 2021. *Origin and Diversification of endemic avifauna in Western Ghats: A phylogenetic synthesis*. Poster presented at the 3<sup>rd</sup> National Symposium on Avian Biology at Haridwar, Uttarakhand.
- **Goyal, N.**, Singh, P., Sivakumar, K., and Nair, M.V. 2019. *Patterns in habitat use of the endemic Nicobar Bulbul and the introduced Red-whiskered Bulbul on two islands of the central Nicobar <i>Islands*. Poster presented at the 2<sup>nd</sup> National Symposium on Avian Biology at Tirupati, Andhra Pradesh.
- **Goyal, N.**, Warudkar, A., Vishnudas, C.K., and V.V. Robin. 2019. *Phylogenetic position of the endemic Vigor's Sunbird*. Poster presented at the 2<sup>nd</sup> National Symposium on Avian Biology at Tirupati, Andhra Pradesh.
- Warudkar, A., Goyal, N., Joshi, V., Vinay, K.L., Vishnudas, C.K., and V.V. Robin. 2019.
   Phylogeography of the resident Indian Long-billed Pipit (Anthus simillimus). Poster presented at the 2<sup>nd</sup> National Symposium on Avian Biology at Tirupati, Andhra Pradesh.
- **Goyal, N.** 2018. *Distribution and Abundance of Ganges River Dolphin (Platanista gangetica) in the Ganges River system*. E-Poster presented at XXXII Annual Research Seminar, Wildlife Institute of India, Dehradun.
- **Goyal, N.** 2017. An endemic in peril? Does the introduced Red-whiskered Bulbul threaten the endemic Nicobar Bulbul? Speed talk presented at XXXI Annual Research Seminar, Wildlife Institute of India, Dehradun. (Best Presentation award)

# **Technical Reports**

- Contributor State of India's Birds version 2, 2023.
- Co-author Monitoring Ganges and Indus River Dolphins, Associated Aquatic Fauna and Habitat: Field Guide. 2021.
- Co-author Status of Ganges River Dolphins, Threats and Best Practices for Conservation 2021 (Qureshi et al., 2021, Wildlife Institute of India).
- Co-author Development of Conservation Action Plan for River Dolphins, Annual report 2017-18 by Wildlife Institute of India.

## **Teaching Experience and Mentoring**

- Lectures on the basics of population genetics as a part of the Conservation Genetics module for MSc students at the Salim Ali Centre for Ornithology and Natural History, Coimbatore, India (12 students)
- Teaching assistant for BIO211: Ecology and Evolution, BSMS course at IISER Tirupati (~100 students)
- Lectures on Biodiversity and Biogeography as a part of ES202L course at IIT Tirupati (~100 students)
- Lectures on Biogeography, Marine Ecology, and Conservation Science as a part of the BIO327 course at IISER Tirupati (10 students)
- Co-lecture on the Biogeography of peninsular Indian birds as a part of the Biogeography module for MSc students at the National Centre for Biological Sciences. Conducted by Dr. V.V. Robin and Dr Vivek Ramchandran (10 students)
- Mentored 4 project students and 11 interns (including 3 early-career veterinarians) in mistnetting and bird handling
- Trained forest department members in mist-netting and bird handling for Madhya Pradesh,
   Maharashtra, Kerala, and Karnataka Forest Departments

- Co-mentor for 2 BSMS students 'master's theses projects at IISER Tirupati
- Co-mentored 2 BSMS students' semester projects at IISER Tirupati

# **Workshops and Seminars**

• Co-organized the 2<sup>nd</sup> National Symposium on Avian Biology at IISER, Tirupati. 7<sup>th</sup> to 10<sup>th</sup> December 2019.

# **Fellowships**

2019 Indian Institute of Science Education and Research – Tirupati PhD

Fellowship

2015 Wildlife Institute of India Fellowship for Master's program in Wildlife

Sciences

# **Outreach and Capacity Building**

- Aided and led groups of citizens for the Tirupati Bird Atlas 2022
- Aided in organizing and leading a group of undergraduate students at IISER Tirupati for Tirupati Bird Atlas 2019
- Led a team to raise awareness about birds and wetlands amongst school children at Sultanpur Bird Sanctuary, Haryana in 2018
- Organized Wildlife Week Quiz over two consecutive years, 2015 and 2016, to raise awareness amongst school children at the Wildlife Institute of India
- Interacted with undergraduate students at the University of Delhi to motivate them about field research in Ecology and Evolution in 2014

#### Research Skills

Field Skills

- Identification of various mammals, birds, and plants
- Using various field equipment such as GPS, Range Fingers, Mist-nets, Camera traps, Compass, Sensors, and Data Loggers
- Handling and ringing of birds, collecting blood, feather, and ectoparasite samples, and handling of bats

Lab Skills

 Extracting DNA from blood and tissue samples and processing the DNA in a Sanger sequencing framework and Next Generation Sequencing framework (Library preparation for Short-read Sequencing – ddRAD seq, target enrichment, and whole genome sequencing protocols)

Analytical Skills

- Operating Systems: Windows family, Mac OS family, LINUX family
- Software: QGIS, MaxEnt
- Well-versed in the R programming language to carry out various population and community ecology and evolution analyses
- Well-versed with Python and Shell scripting to analyse Next-Generation Sequencing data for phylogenetics and population genetics

Languages

English, Hindi

### **Academic Referees**

• Dr Robin Vijayan

Associate professor

Eco Evo Lab

Indian Institute of Science Education and Research - Tirupati

Email ID - robin@labs.iisertirupati.ac.in

Contact no - 9449002297

• Dr Manoj V. Nair, Indian Forest Service

Director, Nandankanan Zoological Park

Odisha

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• Prof. Qamar Qureshi

Scientist-G

Department of Landscape level planning and management

Wildlife Institute of India

Dehradun, Uttarakhand

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Professor, Pondicherry University

Chinna Kalapet, Puducherry 605014

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## **Other Information**

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