

# Aritra Bhattacharya

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## Education

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### Texas A&M University

*PhD in Entomology*

August 2023 – Present

College Station, Texas, USA

### Maulana Abul Kalam Azad University of Technology, WB

*MSc in Biotechnology*

November 2020 – June 2022

Haringhata, West Bengal, India

### Ramakrishna Mission Vivekananda Centenary College

*BSc in Zoology*

July 2016 – October 2020

Khardaha, West Bengal, India

## Research Experience

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### Evolution of resistance under divergent rate of pathogen selection

*Ashoka University, Sonapat, Haryana, India (February 2022 – June 2022)*

- This was my MSc dissertation thesis. I did some experiments to check the rate of evolution of resistance against different pathogens in *Tribolium* beetles.

### COPD: Making Sense of Existing GWAS Findings in Indian Context

*MAKAUT, WB, Haringhata, India (December 2021 - February 2022)*

- It was a small research project during my MSc, We jotted down the genes and SNPs responsible for COPD in the Indian population from 1456 variants & did pathway analysis to check their functions that might be relevant for COPD development.

### Temporal diversity of urban butterflies: A case study

*RKMVC College, Khardaha, WB, India (November 2016 - January 2020)*

- I did this project during my BSc. We sampled butterflies in and around our college campus. We did a checklist of butterflies and also observed how their community is changing across seasons with vegetation pattern.

## Professional Experience

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### PhD student

*Motta Lab, Department of Entomology, Texas A&M University*

Summer 2025 – present

College Station, TX, USA

- Being a PhD student at the lab, my roles are including but not limited to conducting experiments, analyzing and visualizing my data and presenting them in lab meetings and conferences, collaborating with current lab members in their projects, and mentoring undergraduates

### Graduate Research Assistant

*Magalhaes Lab, Department of Entomology, Texas A&M University*

Summer 2024 – Spring 2025

College Station, TX, USA

- Being a PhD student at the lab, my responsibilities included doing the safety checks every weeks, maintaining the mosquito populations, keeping track of the stock of reagents and other materials apart from doing experiments for my project.

### **Graduate Teaching Assistant**

Summer 2025 – Present

*Dept. of Entomology, Texas A& M University, College Station, TX, USA*

- I have been teaching the lab sections of FIVS 210 (Forensic Photography) in the Department of Entomology since Fall 2025, here I teach basics of photography techniques using a DSLR camera and how to implement them in forensics.

Fall 2023 – Spring 2024

*Department of Biology, Texas A& M University, College Station, TX, USA*

- I have taught the lab courses of BIOL 111 (Introductory Biology I) in Fall 2023 & BIOL 319 (Anatomy and Physiology I) in Spring 2024. This role requires me to give a background of the topic of the lab to the undergraduate students, supervise them while they are doing their lab exercises, grade their laboratory assignments, set up questions and proctor Lab exams and grading them. I have taught the lab sections of FIVS 210 (Forensic Photography) in the Department of Entomology in Fall 2025 as well.

### **Project Assistant**

July 2022 – March 2023

*Evolutionary Immunology Lab, Ashoka University*

*Sonepat, Haryana, India*

- I studied sperm competition abilities of Tribolium beetles and the role of chronic malnutrition in disease transmission in Drosophila as a research assistant after completing my MSc. This position required me to do experiments, record, analyze and present data & maintain populations of the model organisms.

### *Skills*

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**Computer Languages:** R (intermediate), Python (beginner), Bash (beginner), HTML(intermediate)

**Wet Lab techniques:** Ultracentrifuge, DNA extraction, RNA extraction, PCR, electrophoresis, spectrophotometer, high resolution camera operated microscope, basic microbial techniques, field sampling techniques

**Softwares:** Basic computer applications like Microsoft Office, SPSS, PAST, different bioinformatic tools

**Other skills:** Digital photography and photo editing, digital art

### *Presentations*

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- Student Research Week, 'Disentangling the Mechanistic Principles of Microbiota-Mediated Detoxification in Honey Bees', (03/17/2026, College Station, TX, USA) **Oral**
- 4th Annual Conference of the Indian Society for Evolutionary Biologists, 'Revolutionising Darwinian Synthesis: Fresh Perspectives and Future Challenges.', (02/09/2023-02/11/2023, Ahmedabad, India) **Poster**
- Manufacturing (Level 1) & COVID-Food Safety Supervisor, (02/20/2021-02/21/2021, Kolkata, India) **Poster**[Won technical brilliance award]
- 6th Asian Lepidoptera Conservation Symposium, (09/17/2019-09/21/2019, Kolkata, India) **Poster**
- ALLERCON-2017, The 7th National Conference on Respiratory Allergy and Immunology, (01/14/2018, Kolkata, India) **Poster**[Won best presenter award]

- National Conference on Status of Invasive Alien Species in India, (12/14/2017-12/15/2017, Kolkata, India) **Poster**
- National Seminar on Forest Resources: Conservation Issues and Management, (09/09/2017, Kolkata, India) **Poster**

### Certifications

<b>AI0101EN: AI for Everyone: Master the Basics</b>	4 weeks
Certificate ID: <a href="#">6fd8789d1ae146348a4bda736f3696d6</a>	Platform: edX
<b>PY0101EN: Python Basics for Data Science</b>	5 weeks
Certificate ID: <a href="#">5cc9d19334e94a9682fa0bc969f726c0</a>	Platform: edX
<b>PH125.2x: Data Science: Visualization</b>	8 weeks
Certificate ID: <a href="#">a40f449f0e534960b7ef8fe3f572ed56</a>	Platform: edX
<b>LFS101x: Introduction to linux</b>	14 weeks
Certificate ID: <a href="#">4a6c484ebde6412cb68fba71e4ba2828</a>	Platform: edX

### Publications

- Dutta, T., **Bhattacharya, A.** 2022. Chronic Obstructive Pulmonary Disease (COPD): Making Sense of Existing GWAS Findings in Indian Context. *Int J Biomed Clin Anal.*, **2(1)**:29-37
- **Bhattacharya, A.**, Chakraborty, S., Das, K.L., Saha, A., Sardar, S., Mandal, B., Murkherjee, A. and Mitra, B. 2018. Temporal diversity of urban butterflies: A case study in the campus of Ramakrishna mission Vivekananda centenary College, Rahara, West Bengal. *The Pharma Innovation Journal*, **7(12)**: 395-400.

### Publications in abstracts

- **Bhattacharya, A.**, Motta, E. 2026/16/03 to 2026/20/03. Disentangling the Mechanistic Principles of Microbiota-Mediated Detoxification in Honey Bees. *Student Research Week, 2026'* Pp- 60
- **Bhattacharya, A.**, Bose, J., Khan, I. 2023/09/02 to 2023/11/02. Linking evolution under chronic malnutrition, costs of infection and disease transmission. *4th Annual Conference, Indian Society of Evolutionary Biologists, 'Revolutionising Darwinian Synthesis: Fresh Perspectives and Future Challenges.'* Pp- 87
- **Bhattacharya, A.**, Das, S., Ghosh, D., Sardar, S., Mandal, B., Mukherjee, A., Mitra, B. 2019/17/09 to 2019/21/09. Community foraging of butterflies on *Lantana camara* – partition or overlapping. *6th Asian Lepidoptera Conservation symposium.* Pp- 90
- **Bhattacharya, A.**, Chakraborty, S., Das, K.L., Sardar, S., Mandal, B. and Murkherjee, A. 2018/14/01. Alternative proposal for combating the pollen-induced allergy by introducing non allergic butterfly parks in urban area- a case study. *ALLERCON-2017, The 7th National Conference on Respiratory Allergy and Immunology.* Pp-36
- Chakraborty, S., Das, K.L., **Bhattacharya, A.**, Saha, A., Sardar, S., Mandal, B. and Murkherjee, A. 2017/14/12 & 2017/15/12. Temporal shifting in communities of butterflies in a suburban area and it's relation with social plantation. *National Conference on Status of Invasive Alien Species in India.* Pp-59.

- **Bhattacharya, A.**, Saha, A., Chakraborty, S., Das, K.L., Sardar,S., Mandal, B. and Murkherjee, A. 2016/09/09. Small scale social foresting in suburban area for upholding the temporal variations of butterflies. *Nat. Sem. On Forest Resources: Conser. Issues and Mgmt.* Pp- 30.

#### *Grants*

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**EKTA Incubation Centre-TBI (MAKAUT, WB):** 45000INR for ecological restoration.  
(Declined)