

Awanti Shastri

PHD CANDIDATE · DEPARTMENT OF BIOLOGICAL SCIENCES, THE GEORGE WASHINGTON UNIVERSITY

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Education

Ph.D. in Biology

THE GEORGE WASHINGTON UNIVERSITY

- Advisor: Dr. Adam Smith

Washington, DC

Jan 2021 - present

Master of Science in Biology

BS-MS, INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH (IISER TVM)

- Advisor: Dr. Hema Somanathan

India

2015 - 2020

Research

Dissertation: Behavioral and physiological responses of ants to climate warming

Washington, DC

ADVISOR: DR. ADAM SMITH, DEPARTMENT OF BIOLOGY, THE GEORGE WASHINGTON UNIVERSITY

Jan. 2021 - Present

- Activity and foraging patterns of *Aphaenogaster rudis* and *A. picea* along an elevation gradient in Shenandoah NP and under temperature treatments in the lab
- Characterization of gut microbiome of *Aphaenogaster sp.* along an elevation gradient and changes under artificial temperature treatments
- **Co-advisor: Sabrina Amador, STRI.** Effect of temperature on the ant-acacia mutualism of *Pseudomyrmex spinicola* and *Vachellia collinsii*: In-situ whole-plant heating treatment and observations in Parque Metropolitano, Panama

Masters Thesis: Seasonal and latitudinal effect on mass orientation flights of *Apis cerana* and *Apis mellifera*

India

ADVISOR: DR. HEMA SOMANATHAN, DEPARTMENT OF BIOLOGY, IISER TVM

2019-2020

- Independent fieldwork at two sites across India
- Tagging and behavioral observations of honeybees

Research: "Age polyethism and foraging specialization in *Apis cerana*"

India

ADVISOR: DR. HEMA SOMANATHAN, DEPARTMENT OF BIOLOGY, IISER TVM

2016-2019

- **Publication: Shastri, A, Ramesh A, Hempel de Ibara N, Somanathan H.** 2023. Behavioural Ontogeny in *Apis cerana*. In prep.
- Tagging, behavioral observations, data analysis and manuscript preparation

Awards, Fellowships & Grants

2024 **Short-term Graduate Research Fellowship**, Smithsonian Tropical Research Institute, Panama

2023 **WBFC Research Grant**, Washington Biologist's Field Club

2020 **Silver medal in Department of Biology**, IISER TVM, India

2015-2020 **INSPIRE fellowship**, IISER TVM, India

Presentations

INVITED TALKS

Spring 2022. *Animal Behavior*. Guest lecture: Introductory Biology, The George Washington University

2024. *How do insects cope with the rising temperatures?* Public Talk Series by the Smithsonian Tropical Research Institute. [Link](#)

CONTRIBUTED PRESENTATIONS

Shastri, A, Smith A, Amador A. 2024. Behavioral Response of Ants to Climate Change. Oral presentation: IUSSI-NAS 2024, Prescott, Arizona

Shastri, A, Smith A. 2023. How do social insects cope with a changing climate? A study of two ant species along an elevation gradient. Oral presentation: Entomology 2023, National Harbor, Maryland

Shastri, A. 2022. Effects of Climate Change on Social Behavior. Departmental seminar: The George Washington University

Shastri, A, Ramesh, A, Hempel de Ibara, N, Somanathan, H. 2022. Weak Age Polyethism in the Asian honeybee, *Apis cerana*. Poster: IUSSI conference, San Diego, California

Shastri, A, Ramesh, A, Hempel de Ibara, N, Somanathan, H. 2021. Ontogeny of tasks in the Asian honeybee *Apis cerana*. Oral presentation: Entomology 2021, Denver, Colorado

Teaching Experience

- 2022-2024 **Workshop: Statistical analysis with R**, Workshop for undergraduates as part of the Harlan Undergraduate Summer Research Program
- 2021-2022 **Introductory Biology**, Lead Graduate Teaching Assistant, Liaison between the professor and teaching assistants for the lab sections, in-charge of preparing exams and grading for 2 lecture sections of 200 students each, held office hours and helped students with challenging concepts
- 2021 **Introductory Biology lab**, Teaching Assistant, Taught two sections of the lab with 25 students each. Duties included making the lecture slides, teaching, preparing exams and grading

Outreach & Professional Development

SERVICE AND OUTREACH

- 2024 **Partners in Health - Caregivers talk series**, Talk with caregivers and their kids about ants and climate change
- 2024 **Skype-a-Scientist**, Talks with two second and third grade school classroom about ants and climate change
- 2023 **Entomology 2023**, Co-Moderator, Grad Competition PBT: Thermoregulation and Climate Change
- 2023 **Biology Graduate Student Council**, Committee Member, Social Events Representative, The George Washington University
- 2016-2020 **Ecological Society of IISER TVM**, Co-founder, Lead member, IISER TVM

DEVELOPMENT

- 2022 **Ant neurobiology training**, Was hosted by the University of Scranton to learn ant brain dissections and immunostaining protocols from Marc Seid
- 2021 **Tropical Field Ecology Course**, Organisation for Tropical Studies (OTS). An intensive field research training course where I worked on multiple small research projects at three different research stations in Costa Rica
- 2018 **R programming certifications**, Introduction to R and Data visualisation with R on Datacamp

PROFESSIONAL MEMBERSHIPS

- 2021-
Present **Entomological Society of America , (ESA)**

Mentoring

- 2024 **Bridget Rushing**, Ant activity at baits along an elevation gradient, *Aphaenogaster* ant collection and maintainance
- 2023 **John Blaha, Christian Pecoraro**, *Aphaenogaster* ant collection, maintenance of colonies in the lab, making behavioral observations
- 2022 **Anna Stolt**, Collection and behavioral data observations of *Temnothorax* ants
- 2021 **Sophie Kujawski**, Bumblebee odor learning
- 2019-2020 **Vinayak Kamath, Arya Devi, Gifty Jacob**, Video analysis - collecting data on honeybees for my Masters thesis. I helped them conceptualise their own Masters projects and through their application process for PhDs

Interests

Canvas painting, Photography, Badminton, Playing keyboard, Biking