Vrinda Ravi Kumar, Ph.D.

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Professional Experience

Postdoctoral Research Fellow - Biology Centre, Czech Academy of Sciences *České Budějovice, Czechia*
Advisor: Dr. Jan Hrček *July 2022 -present*
- Eco-evolutionary dynamics of host-parasitoid communities

Independent Consultant - Turtle Shell Technologies *Bangalore, India*
Innovation in Clinical Research and Development *February-April 2022*
- Literature and technological review on the clinical presentation and use of monitoring on neurological disorders
- Gap analysis on health care surrounding ischemic strokes

Scientific Editor - Cactus Communications *Bangalore, India*
Allied Healthcare Centre of Excellence *July 2021- Jan 2022*
- Delivered publication-ready research manuscripts spanning diverse biomedical fields
- Developed presentation and data strategies for unpublished research

Research Associate - National Centre for Biological Sciences *Bangalore, India*
Advisor: Dr. Deepa Agashe *Sep 2020 - June 2021*
- Ecological linkages between reproductive choice, fitness and context-dependence

Research Scholar - National Centre for Biological Sciences *Bangalore, India*
Advisor: Dr. Deepa Agashe *Aug 2014 - Sep 2020*
- Evolutionary ecology of beetle niche preference
- Density-dependent impacts on reproductive behaviour and habitat use
- Ancestral and demographic determinants of population performance in degraded environments

Visiting Scholar - Max Planck Institute for Chemical Ecology *Jena, Germany*
Host: Dr. Ewald Grosse-Wilde *August 2015*
- Structural annotation of olfactory receptor genes in the *Tribolium castaneum* whole genome

Undergraduate Research Scholar - Indian Institute of Science Education and Research *Mohali, India*
Advisor: Dr. N.G. Prasad *2013-2014*
- Intrasexual *Drosophila* aggression across varying levels of intersexual conflict
- Developed temporal sampling strategy to reliably construct ethograms of distinct aggressive behaviours

Education

National Centre for Biological Sciences *Bangalore, India*
PhD in Ecology, Evolution and Behaviour *Aug 2014 - Sep 2020*
- Thesis: Adjust and Adapt: Behavioural and Evolutionary Responses of a Generalist to Novel Environments

Indian Institute of Science Education and Research *Mohali, India*
Integrated BS-MS in Biology *Aug 2009 - May 2014*
- Thesis: War and Peace: Male-to-Male Aggression in *Drosophila melanogaster* Populations Selected for Different Levels of Sexual Conflict
- Minor in Humanities and Social Sciences

Publications

Ravi Kumar, V., Buddh, S., Singhal, S., Prakash, A., Agashe, D. 2025. Founders predict trait evolution and population performance after evolutionary rescue in the red flour beetle. (in press) Proceedings of the National Academy of Sciences.

Ravi Kumar, V., Agavekar, G., Agashe, D. 2023. Fitness Landscapes Reveal Context-Dependent Benefits of Oviposition Choice. Evolution , 77(2): 550-561.

Ravi Kumar, V., Issar, S., Agashe, D. 2018. The Induction of Larval Resource Preference in Heterogeneous Habitats. Ecological Entomology, 43(6): 719-730.

In Prep

Ravi Kumar, V., Esteves Ramirez, J., Montbel, V., Rasouli-Dogaheh, S., Fedorchenko, V., Hrcek, J. Evolutionary Tradeoffs Among Ecological Interactions.

Ravi Kumar V., Buddh, S., Prakash, A., Agashe, D. Founding Phenotypic Variation Predicts Population Performance in an Ancestral and Novel Environment of the Red Flour Beetle.

Ravi Kumar, V., Rasouli-Dogaheh, S., Fedorchenko, V., Hrcek, J. Evolutionary Rescue in a Host-Parasitoid System.

Ravi Kumar, V., Rasouli-Dogaheh, S., Fedorchenko, V., Hrcek, J. Ecological and Evolutionary Feedbacks in an Evolving Host-Parasitoid System.

Awards, Fellowships & Grants

Till date, I have raised the equivalent of INR 14 million to fund my research, development, and presentations.

2023	Marie Skłodowska-Curie Actions Fellowship CZ (VEDA), Ministry of Education, Youth and Sports of the Czech Republic	*CZK 3,532,880*
2021	Science Writers 2021 Support Grant, National Association of Science Writers	*$ 325*
2020	International Travel Grant, Council of Scientific and Industrial Research	*₹ 78,121*
2019	Infosys Foundation Travel Award, Infosys Foundation	*₹ 1,00,000*
2018	International Travel Award, Society for the Study of Evolution	*$ 1,590*
2015	Junior Research Fellowship (National Rank - 33), Council of Scientific and Industrial Research, University Grant Commission	
2012	Undergraduate Summer Research Fellowship, Indian Academy of Sciences (declined)	
2011	Undergraduate Summer Research Fellowship, Indian Academy of Sciences	
2009-2014	Kishore Vaigyanik Protsahan Yojana (KVPY) undergraduate fellowship, Department of Science and Technology	*₹ 4,00,000*

Conferences, Courses & Workshops

2025 Evolutionary Rescue: bridging the gap between theory and experiments, Plön, Germany. **Talk:** Founders predict trait evolution and population performance after evolutionary rescue in the red flour beetle.

2024 Science Visualization Workshop, Johns Hopkins University and Kavli Neuroscience Discovery Institute.

2024 Biology Centre Institutional Seminar, Ceske Budejovice, Czechia. **Talk:** Evolutionary tradeoffs across ecological interactions.

2023 Mathematical Models of Evolutionary Rescue workshop, Plön, Germany. **Talk:** Towards predicting adaptation and rescue using ancestral trait values: Insights from experimental evolution.

2023 Integrating Evolutionary Genetics and Ecology conference, Paris, France.

2022 European Society for Evolutionary Biology meeting, Prague, Czechia. **Poster:** Fitness landscapes reveal context-dependent benefits of oviposition behaviour.

2022 Biology Centre Institutional Seminar, Ceske Budejovice, Czechia. **Talk:** Fitness Landscapes Reveal Context-Dependent Benefits of Oviposition Choice.

2022 Annual Meeting of the American Association for the Advancement of Science, virtual conference.

2021 58th Annual Conference of the Animal Behavior Society, virtual conference. **Talk:** Fitness landscapes reveal context-dependent benefits of oviposition choice.

2021 National Centre for Biological Sciences Annual Talks, Bangalore, India. **Talk:** Context-dependence of (mal)adaptive oviposition preference.

2020 Exploring Sustainability in the Indian Context, Azim Premji University, Bangalore, India.

2020 Global Landscapes Forum Biodiversity Digital Conference: One World - One Health, virtual conference.

2020 National Centre for Biological Sciences Annual Talks, Bangalore, India. **Poster:** The path to success: ancestral correlates of adaptive dynamics in novel habitats.

2020 American Society of Naturalists' Standalone Meeting, California, USA. **Poster:** The path to success: ancestral correlates of adaptive dynamics in novel habitats.

2019 National Centre for Biological Sciences, Institutional Seminar, Bangalore, India. **Talk:** Behavioural and evolutionary responses of a generalist to novel environments.

2019 Indian Society of Evolutionary Biologists' meeting, Bangalore, India. **Poster:** The path to success: ancestral correlates of adaptive dynamics in novel habitats.

2019 European Society for Evolutionary Biology meeting, Turku, Finland. **Talk:** Ancestral correlates of adaptive dynamics in novel habitats.

2018 National Centre for Biological Sciences, Institutional Seminar, Bangalore, India. **Talk:** Adaptive trajectories during evolutionary rescue.

2018 2nd Joint Congress on Evolutionary Biology, Montpellier, France. **Poster:** Predicting adaptive dynamics in different habitats using ancestral trait values.

2017 7th Annual Science Journalism Workshop. Organizers - Anil Ananthaswamy and Peter Aldhous.

2017 National Centre for Biological Sciences Annual Talks, Bangalore, India. **Poster:** "Last seen at": experience-mediated shifts in the food choice of a generalist beetle.

2017 Conference on Evolutionary and Integrative Biology, Pune, India. **Poster:** Does mother know best? Experience-mediated resource preference in a generalist beetle.

2016 National Centre for Biological Sciences, Institutional Seminar, Bangalore, India. **Talk:** The role of prior experience in food resource choice of a generalist insect.

2016 India - Behaviour, Ecology and Evolution Conference, Nainital, India.

2015 National Centre for Biological Sciences, Institutional Seminar, Bangalore, India. **Talk:** The role of olfaction in beetle resource preference.

2015 National Conference on Ethology and Evolution, Mohali, India. **Poster:** The role of olfaction in beetle resource preference.

2015 K.S. Krishnan School for Chemical Ecology, Bangalore, India. **Poster:** The role of olfaction in beetle resource preference.

Teaching & Mentoring Experience

2025 Tutor, Tutorials in Ecology, Czech Academy of Sciences

2023 Tutor, Tutorials in Ecology, Czech Academy of Sciences

2019-2020 Teaching Assistant, Culture of Scientific Research, National Centre for Biological Sciences

2018-2019 Teaching Assistant, Culture of Scientific Research, National Centre for Biological Sciences

2016 Teaching Assistant, Evolution and Diversity, National Centre for Biological Sciences

2016-2020 Mentor for 3 graduate students and 4 undergraduate summer interns, National Centre for Biological Sciences

Academic Service & Outreach

Academic Service

Peer-reviewed manuscripts for the *Journal of Evolutionary Biology*, *Journal of Experimental Biology*, and *Scientific Reports*

2023 Invited panelist for a panel discussion on women in STEM at the National Centre for Biological Sciences

2018-2019 Developed and ran seminars on gender sensitization and workplace conduct for the student body, National Centre for Biological Sciences

2017-2019 Graduate representative, Internal Complaints Committee, National Centre for Biological Sciences

2017-2018 Designed and conducted a survey assessing student mental health on campus, analyzed and disseminated the results to the institute community

2016-2017 Committee Member, Women's Cell, National Centre for Biological Sciences

2015-2017 Coordinator, Ecology & Evolution Journal Club, National Centre for Biological Sciences

2016 Organizer, Tangled Bank student symposium, National Centre for Biological Sciences

2016 Volunteer, India - Behaviour, Ecology, Evolution Conference

2013 Organizer, Opportunity Cell, Indian Institute for Science Education and Research

2013 Cultural Secretary, Student Representative Council, Indian Institute for Science Education and Research

Science Outreach and Communication

2022 Student Reporter for the National Association of Science Writers (NASW) at the American Association for the Advancement of Science (AAAS) Annual Meeting.

2021 Worked in collaboration with the echo network, a social innovation partnership, to develop outreach material for social media

2021 Freelance science journalist and editor

2019 Foundation Day lead, an outreach initiative by the National Centre for Biological Sciences

2018 Science Communicator, National Centre for Biological Sciences News Office

2012 Editor, "*Manthan*", student-run magazine; planned content, solicited, wrote and edited articles

2012 Member, Youth's Attempt to Nurture, an outreach initiative targeted at underpriveleged children, Indian Institute for Science Education and Research

References

References available on request.