

# Dr. Harisingh Gour Vishwavidyalaya (A Central University)

Title Dr.	First Name	Arjun	Last Name	Adit	Photograph	
Designation	Assistant Prof	fessor				
Affiliation	Department o Vishwavidyal 470003, Madi	aya (A Centr				
Phone No.	+91 99583 46	637				
Email ID	ap_arjuna@dhs	gsu.edu.in; arj				
ORCID	https://orcid.org	g/0000-0001-8				
Google scholar ID	https://scholar.google.com/citations?user=cAVm- XQAAAAJ&hl=en					
EDUCATIONAL PROFILE						

#### EDUCATIONAL PROFILE

Degree	Institution	Year	Remarks
Ph.D.	University of Delhi, Delhi, India	2022	Botany
M. Sc.	University of Delhi, Delhi, India	2015	Botany
B.Sc.	University of Delhi, Delhi, India	2012	Botany (Hons.)

# **CAREER PROFILE**

Organization / Institution	Designation	Duration	Role
Dr. Harisingh Gour Vishwavidyalaya (A Central University), Sagar, India	Assistant Professor	Nov. 2024 – Ongoing	Research and Teaching
University of KwaZulu-Natal, Pietermaritzburg, South Africa	Postdoctoral Researcher	Jan. 2023 – Nov. 2024	Research
Dyal Singh College, University of Delhi, Delhi, India	Guest Lecturer	Sept. 2022 – Dec. 2022	Teaching

# **Areas of Interest / Specialization**

- Pollination Ecology
- Plant Systematics
- Reproductive Biology

- Behavioral Ecology
- Trait Evolution
- Diversity and Conservation

# **PUBLICATIONS**

# PEER-REVIEWED ARTICLES

(\*corresponding author)

# Communicated:

- 1. **Adit A\***, Johnson SD. Anther mimicry enhances pollination of an African orchid by pollen-feeding beetles. *Plant Biology*.
- 2. **Adit A\***, Johnson SD, Bytebier B. Loss of pollinator in a disjunct population leads to apomixis and floral mutation in an African *Habenaria* (Orchidaceae). *Annals of Botany*.

# Published:

- 1. **Adit A**, Singh VK, Tandon R\*, Shivanna KR. 2024. Pollination Research in India: current status, vision and implication for conservation. *Integrative Conservation* 3: 330–341. https://doi.org/10.1002/inc3.74 (IF: TBA)
- 2. **Adit A\***, Kumar P. 2024. Taxonomy of *Coelogyne* section *Fuliginosae* (Orchidaceae): new species, notes, resurrections and typifications. *Phytotaxa* 668: 81–98. <a href="https://doi.org/10.11646/phytotaxa.668.1.5">https://doi.org/10.11646/phytotaxa.668.1.5</a> (IF: 1.1)
- 3. **Adit A\***, Johnson SD. 2024. A shift between bee and wasp pollinators explains floral divergence in the Duvernoia clade of *Justicia* (Acanthaceae). *Botanical Journal of the Linnean Society* boae021. https://doi.org/10.1093/botlinnean/boae021 (IF: 2.9)
- 4. Das S, Barman C, Roy A, Mandal M, Popek R, **Adit A**, Sarkar A\*. 2024. Urban air pollution may alter reproductive dynamics/efficacy in plants: correlative evidences from an urban sprawl in eastern Indo-Gangetic Plain. *Aerobiologia* xx: 1–19. <a href="https://doi.org/10.1007/s10453-024-09811-3">https://doi.org/10.1007/s10453-024-09811-3</a> (IF: 2.5)
- 5. Rather SA, Saina JK, Adit A, Liu H\*, Chang Z, Schneider H. 2023. DNA barcoding of recently diverging legume genera: Assessing the temperate Asian *Caragana* (Fabaceae: Papilionoideae). *Journal of Systematics and Evolution* 62: 534–547. https://doi.org/10.1111/jse.13009 (IF: 3.5)
- 6. Rather SA, Adit A, Jing Z, Liu H, Saina JK, Liu H\*, Chang Z, Schneider H. 2023. Floral development in *Biancaea decapetala* and *Albizia julibrissin* (Fabaceae: Caesalpinioideae), and its systematic significance. *Taiwania* 68: 281–293. https://doi.org/10.6165/tai.2023.68.281 (IF: 1)
- 7. **Adit A**, Koul M, Kapoor R, Tandon R\*. 2022. Topological analysis of orchid-fungal endophyte interaction shows lack of phylogenetic preference. *South African Journal of Botany* 149: 339–346. <a href="https://doi.org/10.1016/j.sajb.2022.06.025">https://doi.org/10.1016/j.sajb.2022.06.025</a> (IF: 3.1)
- 8. **Adit A**, Koul M, Choudhary AK, Tandon R\*. 2022. Interaction between *Cymbidium aloifolium* and *Apis cerana*: incidence of an outlier in modular pollination network of oil flowers. *Ecology and Evolution* 12: e8697. <a href="https://doi.org/10.1002/ece3.8697">https://doi.org/10.1002/ece3.8697</a> (IF: 3)
- 9. Parveen S, Singh N, Adit A, Kumaria S, Tandon R, Agarwal M, Jagannath A, Goel S\*. 2022. Contrasting reproductive strategies of two *Nymphaea* species affect existing natural genetic diversity as assessed by microsatellite markers: implications for conservation and wetlands restoration. *Frontiers in Plant Science* 13: 773572. https://doi.org/10.3389/fpls.2022.773572 (IF: 6.5)
- 10. **Adit A**, Singh VK, Koul M, Tandon R\*. 2022. Breeding system and response of the pollinator to floral larceny and florivory define the reproductive success in *Aerides odorata*. *Frontiers in Plant Science* 12: 767725. https://doi.org/10.3389/fpls.2021.767725 (IF: 6.5)

- 11. **Adit A**, Jalal JS, Koul M, Tandon R\*. 2021. A conspectus of orchid studies in India. *Rheedea* 31: 218–233. https://dx.doi.org/10.22244/rheedea.2021.31.03.14 (IF: 0.8)
- 12. Phukela B, **Adit A**, Tandon R\*. 2021. Evolutionary trends and diversity of major floral nectary types across Solanaceae. *Planta* 254:1–20. https://doi.org/10.1007/s00425-021-03705-1 (IF: 4.3)
- 13. **Adit A**, Kumar P, Koul M, Tandon R\*. 2021. Lectotypification of *Bulbophyllum crassipes* (Orchidaceae) and notes on its taxonomy and distribution. *Phytotaxa* 521: 232–235. <a href="https://doi.org/10.11646/phytotaxa.521.3.9">https://doi.org/10.11646/phytotaxa.521.3.9</a> (IF: 1.1)
- 14. Koul M\*, Bisht RR, **Adit A**. 2020. Detection of adulteration in daily food items: Insights into laboratory procedures. *Hans Shodh Sudha* 1: 20–26. (IF: NA)
- 15. **Adit A**, Koul M, Tandon R\*. 2020. Twelve new additions in the orchid flora of Tripura, North-East India. *Check List* 16: 17–25. <a href="https://doi.org/10.15560/16.1.17">https://doi.org/10.15560/16.1.17</a> (IF: 0.6)
- 16. **Adit A**, Koul M, Tandon R\*. 2019. New distribution records in the orchid flora of Tripura, India. *Journal of Threatened Taxa* 11: 14876–14885. https://doi.org/10.11609/jott.4613.11.14.14876-14885

# **BOOK CHAPTER**

1. Phukela B, **Adit A**, Tandon R\*. 2020. A snapshot of evolutionary history of floral nectaries across angiosperm lineages. In: Tandon et al. (eds) *Reproductive Ecology of Flowering Plants: Patterns and Processes*. Springer, Singapore. https://doi.org/10.1007/978-981-15-4210-7\_6

#### **BOOKS**

- 1. Adit A\*, Koul M, Tandon R. In press. Orchids of Tripura. Dehradun: BSMPS.
- 2. **Adit A\***. 2021. *Trees of Panjim*. Margao: Goa Medicinal Plant Board. (ISBN 978-93-5473-306-2). [PDF: <a href="https://www.researchgate.net/publication/352246168">https://www.researchgate.net/publication/352246168</a> Trees of Panjim]
- 3. Sharma DK\*, Agarwala B, **Adit A**, Debbarma A, Roy B. (eds.) 2021. *The Faunal wealth of Tripura: compilation*. Agartala: Tripura Biodiversity Board. (ISBN 978-93-5473-528-8)

# **TECHNICAL REPORTS**

- 1. **Adit A\***, Kumar P. 2023. *Oberonia bopannae*. *The IUCN Red List of Threatened Species* 2023. https://dx.doi.org/10.2305/IUCN.UK.2022-1.RLTS.T187898999A192723615.en
- 2. **Adit A\***. 2022. *Neottia confusa. The IUCN Red List of Threatened Species* 2022. https://dx.doi.org/10.2305/IUCN.UK.2022-1.RLTS.T186300668A186805829.en
- 3. **Adit A\***, Kumar P. 2022. *Pleione arunachalensis. The IUCN Red List of Threatened Species* 2022. https://dx.doi.org/10.2305/IUCN.UK.2022-1.RLTS.T186301390A186805845.en

# POPULAR SCIENCE ARTICLES

- 1. Koul M\*, **Adit A**. 2021 Climate Resilience the Need of Hour: Looking at the Role of Youth. *Brighter Kashmir*, 28<sup>th</sup> October 2021: Opinion and Editorial.
- 2. Koul M\*, **Adit A**. 2021. Biodiversity conservation: together we can. *Greater Kashmir*, 22<sup>nd</sup> May 2021: Opinion and Editorial.
- 3. Kumar G, Adit A, Koul M\*. 2021. Similipal Forest Fire. Science Reporter, 58: 13.
- 4. Koul M\*, **Adit A**. 2021. Kashmir Wetlands: Need for fresh look from health perspective. *Greater Kashmir*, 2<sup>nd</sup> February 2021: Opinion and Editorial.

# RESEARCH PROJECTS AND COLLABORATIONS

#### RESEARCH GRANTS

- 1. PI: *In vitro propagation and re-introduction of Blue Vanda in NE India*. Project Seeding. Taiwan Orchid Growers' Association and World Orchid Conference 23. (2019–2021)
- 2. PI: *Orchid Bio-Inventory Survey of Tripura, India*. Rufford Small Grant for Nature Conservation. The Rufford Foundation, United Kingdom. (2018–2019)

#### RESEARCH COLLABORATORS

- 1. Prof. Steven D. Johnson (University of KwaZulu-Natal, South Africa)
- 2. Prof. Rajesh Tandon (University of Delhi, India)
- 3. Prof. Benny Bytebier (University of KwaZulu-Natal, South Africa)
- 4. Dr. Pankaj Kumar (Miami Dade College, USA)
- 5. Dr. Johannes Spaethe (University of Würzburg, Germany)
- 6. Dr. Adam Shuttleworth (University of KwaZulu-Natal, South Africa)
- 7. Dr. Violeta S. Porcar (University of Sevilla, Spain)
- 8. Dr. Terence Sinyuiy (University of Mpumalanga, South Africa)
- 9. Dr. Vineet K. Singh (University of Delhi, India)
- 10. Dr. Chandan Barman (University of Gour Banga, India)

# **AWARDS**

Young Fellow Award: Taiwan Orchid Growers' Association & World Orchid Conference. (2020)

# SCIENTIFIC SERVICES

#### EDITORIAL BOARD

- Reviewing Editor, Applications in Plant Sciences, Wiley. (2022–2024)
- Assistant Editor, *Check List the journal of biodiversity data*, Pensoft publishers. (2020–2021)
- Editor, *The Botanica*, Delhi University Botanical Society. (Volume 67: 2017–2018)

#### **REVIEWER**

- Annals of Botany (Oxford Academic)
- Applications in Plant Science (Wiley)
- *Ecology and Evolution* (Wiley)
- Flora (Elsevier)
- Phytotaxa (Magnolia Press)

# **MEMBERSHIPS**

- Member, International Union for Conservation of Nature Species Survival Commission: Orchid Specialist Group (IUCN-SSC: OSG)
- Member, Botanical Society of America (BSA)
- Member, Association for Tropical Biology and Conservation (ATBC)
- Life Member, *Indian Botanical Society* (IBS)
- Life Member, Indian Association for Angiosperm Taxonomy (IAAT)
- Life Member, *The Orchid Society of India* (TOSI)

#### ADMINISTRATIVE RESPONSIBILITIES

- Co-Coordinator, University Botanical Garden, DHSGV, Sagar. (2024 ongoing)
- Co-Incharge, Departmental Museum, Department of Botany, DHSGV, Sagar. (2024 ongoing)
- Co-Incharge, Departmental Store, Department of Botany, DHSGV, Sagar. (2024 ongoing)

#### PROFESSIONAL DEVELOPMENT

- 1. National Level Training Workshop on *Conservation of Macro Fauna of Riverine Ecosystem* for University Professors at the Wildlife Institute of India. (February, 2025)
- 2. Skill Enhancement Workshop on *Fundamentals of R analytics and applications for biostatistics* organized by Department of Botany, University of Delhi, India. (November, 2017)
- 3. Collaborative mini-course: *The fate of carbon in forests: a functional traits approach* by Department of Botany, University of Delhi, India and Institutes of Ecology & Biology, National University of Mexico, Mexico. (July, 2016)
- 4. Summer School on *Cellular and Molecular Biology* by Jawaharlal Nehru University, India. (May–June, 2016)
- 5. Course on *Climate Change* by International Centre for Cultural & Education and United Nations Framework Convention on Climate Change. (2016)
- 6. Internship in project entitled *Understanding diet of Paradoxurus hermaphrodites in an urban landscape* under the supervision of Dr. Saumya Prasad, School of Life Sciences, Jawaharlal Nehru University, India. (May–June, 2016)
- 7. Summer Research Fellow of Indian Academy of Sciences Indian National Science Academy National Academy of Sciences, India. *Trees of Panjim, Goa* under the guidance of Prof. M.K. Janarthanam, Department of Botany, Goa University, India. (May–July, 2014)
- 8. Internship in University Grants Commission project, *Plant invasions: Ploidy & Ecology* supervised by Prof. V.R. Rajpal, Hans Raj College, University of Delhi, India. (2013–2014)
- 9. *Microbial biotechnology* workshop by Department of Biotechnology, Government of India and Hans Raj College, University of Delhi, India. (April, 2014)

# **CONFERENCE PROCEEDINGS**

(\*presenting author)

- 1. **Adit A\***, Johnson SD, Benny Bytebier. Clonal seed production and floral mutations are associated with loss of pollinators in a disjunct population of the South African orchid *Habenaria nyikana*. '8<sup>th</sup> Fountainhill Estate Research Symposium', Wartburg, South Africa. (October 17-18, 2024)
- 2. Tandon R\*, **Adit A**. *Do orchids mind getting robbed of floral rewards?* International Conference cum Workshop on 'Resource Development of Medicinal and Floricultural Orchids: Lab Techniques to Entrepreneurial Ventures' by The Orchid Society of India. IISER Campus, Pune, India. (March 15–17, 2024)
- 3. **Adit A\***, Johnson SD. *Floral Diversification Driven by a Pollinator Shift in the Duvernoia Clade of Justicia*. 'International Symposium on Pollination (ISP XII)' by ICPPR. Kirstenbosch Botanic Gardens, Cape Town, South Africa. (October 16-20, 2023)
- 4. **Adit A\***, Tandon R. *Floristic Survey of Orchids in Tripura*. International Conference on 'Documentation, Bioprospecting and Conservation of Biodiversity for Sustainable Development' by Indian Association for Angiosperm Taxonomy. Kalsubai-Harishchandragad Wildlife Sanctuary, Maharashtra. (April 5–7, 2022)
- 5. Adit A\*, Koul M, Tandon R. *Diversity and Status of Orchids in Tripura*. International Conference cum Workshop on 'Agrotechnology, Value Addition, Global Trade and Sustainability of Medicinal/Neutraceutical Orchids' by The Orchid Society of India. Venkataramannagudem, Andhra Pradesh, India. (March 25–27, 2022)
- 6. **Adit A\***, Koul M, Tandon R. *Orchid Conservation in an overlooked region of India*. World Orchid Conference 23. Taichung, Taiwan. (April 23–26, 2021)
- 7. **Adit A\***, Phukela B, Koul M, Tandon R. *In vitro propagation and re-introduction of blue Vanda in North-east India*. World Orchid Conference 23. Taichung, Taiwan. (April 23–26, 2021)
- 8. Phukela B\*, Adit A, Tandon R. *Evolution of floral nectary in Angiosperms*. National Conference on 'Plant Science Research: Relevance, Funding, Challenges & Opportunity' by Mahatma Hansraj Faculty Development Centre. Delhi, India. (January 16–17, 2021)
- 9. Adit A\*, Koul M, Tandon R. Deception and Reward in establishment of Specialized Interactions in Orchidaceae. National Conference cum Workshop on 'Recent Advances in Orchidology with special emphasis on Biology, Climate Change, Conservation, and Commercialization of Floriculturally and Therapeutically Important taxa' by The Orchid Society of India. Port Blair, Andaman and Nicobar Islands, India. (February 15–17, 2019)
- 10. Adit A\*. Does Climate Change influence food and energy security?. Department of Botany, University of Delhi, Delhi, India (September, 2014)
- 11. **Adit A\*.** *Nanotechnology in Biology*. National Conference on 'Relevance of Nanotechnology in Biology', supported by University Grants Commission (UGC). Hans Raj College, University of Delhi, Delhi, India. (February, 2013)

#### RESOURCE PERSON

- 1. *Expert*, State Orchid of Tripura. Research Division, Forest Department, Government of Tripura, India. (30 March 2022)
- 2. *Expert/Assessor*, IUCN Red List Assessment of Orchids for the state of Arunachal Pradesh. Forest Department, Government of Arunachal Pradesh, India. (2020–2021)
- 3. *Resource Person*, 'Tree diversity in JMC campus', Jesus and Mary College, University of Delhi. (10 November 2021)
- 4. *Invited Speaker*, 'Tools and Techniques in Plant Sciences: Morphology to Metabolome', Summer Training Programme for undergraduate students, organised by Shivaji College, University of Delhi and Department of Biotechnology, Government of India. (30 June 2021)
- 5. *Invited Speaker*, 'Valuation of Ecosystem Services and Green GDP', a Green Skill Development Programme, organized by School of Planning and Architecture (SPA) and Environment Information System (ENVIS). (22 January 2020)
- 6. *Invited Speaker*, 'Evolving Face of Microscopy: magnifying lens to Nanoscope', a workshop for Teachers of Botany, organized by Miranda House and Department of Botany, University of Delhi. (11–12 December 2019)
- 7. Resource Person, 'Workshop on Orchid Care and Conservation', Tripura Biodiversity Board. (18 August 2019)