

Curriculum-vitae



Dr. Manzoor Ahmad Shah

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Positions/Assignments held

| Position held | Name of Organisation | Period | | Nature of work |
|------------------------|--|------------|------------|-----------------------------------|
| | | From | To | |
| Professor | Department of Botany, University of Kashmir | 16-7-2019 | Continuing | Teaching and Research |
| Associate Professor | Department of Botany, University of Kashmir | 16-7-2016 | 16-7-2019 | Teaching and Research |
| Senior Asst. Professor | Department of Botany, University of Kashmir | 16-07-2008 | 16-7-2016 | Teaching & research |
| Visiting Professor | King Saud University, Riyadh | 8-2-2015 | 8-1-2016 | Research on mycorrhizas |
| Faculty Affiliate | Division of Biological Sciences, University of Montana, USA | 23-8-2011 | 25-11-2012 | Research on invasion biogeography |
| Post-Doctoral Fellow | Center for Research, Development & Management, University Laval, Canada. | 25-05-2010 | 15-10-2010 | Research on predictive modelling |
| Research Intern | Center of Forestry & Environmental Genomics, University Laval, Quebec | 10-10-2008 | 31-03-2009 | Research in molecular ecology |
| Assistant Professor | Department of Botany, University of Kashmir | 16-07-2003 | 16-07-2008 | Teaching and research |

MAJOR RESEARCH FOCI:

Plant ecology and Biological Invasions, Plant-microbe interactions, Freshwater Ecosystems

CONTRIBUTIONS AT A GLANCE

Books: 1

Book chapters: 6

Research Papers: 120

Research Projects: 18

(International = 3, National Network = 8, Individual = 7)

H-Index

32

i10 Index: 68

Citations = 3013

Research Supervision: M.Phil: 9 awarded PhD: 12 awarded, 2 submitted, 6 under supervision

Invited lectures delivered: 85

Conferences/workshops organized: 10

Countries visited for different academic assignments

France, Sweden, Canada, USA, Germany, Hungary, Saudi Arabia. Also 7 research scholars sent abroad

AWARDS/FELLOWSHIPS

- **Ranked in top 2% of the most influential scientists of the world** by the Stanford University, USA 2023
- **Best Teacher Award** conferred by the University of Kashmir, Srinagar on 31-12-2022
- **Indo-US 21st Century Knowledge Initiative award**, formerly known as Obama-Singh award, 2016.
- Visiting professorship by the King Saud University, **Riyadh** for one year with effect from 8-2-2015 to 8-1-2016.
- **Gold Medal** awarded by the Indian Academy of Environmental Sciences, Haridwar for best paper in a special session during the National Conference on *Status and Conservation of Biodiversity in India with Special Reference to Himalaya*, held at the University of Kashmir, Srinagar on October 4-5, 2013.
- **“Paryavaran Mitra Award”** conferred on 31st August 2013 in recognition of the dedicated and outstanding work in ecology and environmental science.
- The **DBT CREST AWARD** (Cutting-edge Research Enhancement and Scientific Training- Award)-2012, formerly known as Biotechnology Overseas Associateship (BTOA) Award, for working with Prof. R.M. Callaway, University of Montana, **USA**.
- Species Survival Commission’s Citation for Excellence to ISSG of which I am a member in 2017 for the outstanding contribution in delivering the species strategic plan 2017-18.
- Post-Doctoral Research Fellowship by the Canadian Bureau of International Education (CBIE) through the Canadian Commonwealth Exchange Programme (**Asia-Pacific**)–**Canada**, 2009.
- Young Scientist Grant awarded by the Federation of European Microbiological Societies (FEMS) in the 3rd Congress of European Microbiologists, **Gothenburg, Sweden**, June 28-July 2, 2009.
- Young Scientist Congress Grant award by the Organizing Committee of 6th International Conference on Mycorrhizas (ICOM6) from 9-4th August, 2009 in **BeloHorizonte Brazil** (declined).
- Doctoral Internship Award by the Canadian Bureau of International Education (CBIE) through the University of Laval, **Quebec, Canada**. 2008.
- Travel Grant Award by International Foundation of Sciences (IFS), **Stockholm, Sweden**, for the international conference, *Rhizosphere 2*, at **Montpellier, France**, 26-31 August, 2007.
- Joint UGC-CSIR fellowship (+NET) 2001.
- Science Talent Promotion Scholarship at P.G level (1998) by the Department of Science & Technology, Govt. of J&K, India.
- Junior Research Fellowship by S.K University of Agricultural Sciences & Technology, Shalimar, Srinagar, J&K.

SELECTED PUBLICATIONS

RESEARCH PAPERS

2025

1. Shaheen I, Malik R, Sankaran M, **Shah M. A** (2025) Differential impacts of grazing on grassland plant diversity, biomass, soil carbon and nitrogen across an elevation gradient in Kashmir Himalaya *Ecological Applications*, (ESA)doi: 10.1002/wap.70031 **I.F 4.7**
2. Zargar, S. A., Reshi, Z. A., Ganie, A. H., Dutt, H. C., Shah, M. A., & Sharma, N. (2025). Local inventories for effective management of alien species: insights from the alien flora of Jammu, Kashmir, and Ladakh, India. *Environmental Monitoring and Assessment*, 197(1), 1-18. **I.F 3.1**

2024

3. Billur B., Chels C.,**Shah MA** (2024) Colonization and extinction lags drive non-linear responses to warming in mountain plant communities across the Northern Hemisphere. *Ecography*, e07378. (ESA) **I.F 6.0**
4. Rishu T., Aditi R.,**Shah, M.A.**, Gulati, A. (2024) Enhancing saffron (*Crocus sativus* L.) growth in the Kashmir valley with resilient and widely effective Plant Growth-Promoting Rhizobacteria (PGPR) under field conditions. *Industrial Crops and Products*, 11947S. **I.F 5.2**
5. Majeed, G., Noor, W., Lone, R., Agrawal, S., Alaklabi, A., **Shah, M. A.**, & Kamili, A. N. (2024). Modulation of plant defenses by Jasmonic acid and salicylic acid in *Capsicum annuum* L. against *Fusarium wilt* in response to *Fusarium oxysporum* pathogen. *Plant Stress*, 14, 100571. **I.F 6.2**
6. Dar, F.A.,**Shah, M.A.**, Khuroo, A.A (2024) A global database on trees of the treeline ecotone. *Ecology*, e4309 <https://doi.org/10.1002/ecy.4309> (ESA) **I.F 4.7**
7. Nagy, D. U., Thoma, A. E., Al-Gharaibeh, M., Callaway, R. M., Flory, S. L., Frazee, L. J., **Shah, M.A.**,... & Rosche, C. (2024). Among-population variation in drought responses is consistent across life stages but not between native and non-native ranges. *New Phytologist*. <https://doi.org/10.1111/nph.19895> **I.F 9.75**
8. Lucas, M. S., Hensen, I., Barratt, C. D., Callaway, R. M., Durka, W., Lekberg, Y., **Shah, M.A** ...& Rosche, C. (2024). Re-focusing sampling, design and experimental methods to assess rapid evolution by non-native plant species. *Biological Invasions*, 1-17. **I.F 3.65**
9. Rauschkolb, R., Bucher, S. F., Hensen, I., Ahrends, A., Fernández-Pascual, E., Heubach, K., ... **Shah, M.A.**..., & Römermann, C. (2024). Spatial variability in herbaceous plant phenology is mostly explained by variability in temperature but also by photoperiod and functional traits. *International Journal of Biometeorology*, 1-15. **I.F 3.75**
10. Ganicee, S. A., Rashid, N., **Shah, M. A.**, & Ganai, B. A. (2024). Comparative allelopathic potential and phytochemical profiling of invasive and non-invasive alien species of *Amaranthus*. *Chemical Papers*, 1-24. **I.F 2.75**
11. Sofi, I.I., Verma, S., Ganie, A.H., Sharma, N., & **Shah, M.A.** (2024). Meiotic behavior and its implications on the reproductive success of *Arnebia euchroma* (Royle ex Benth.) I.M.Johnst. (Boraginaceae), an important medicinal plant of Trans- Himalaya. *Caryologia* 76(3): 29-37. doi: 10.36253/caryologia-2154.
12. Zargar, S. A., Ganie, A. H., Reshi, Z. A., **Shah, M. A.**, Sharma, N., & Khuroo, A. A. (2024). *Oxalis corniculata* L.(Oxalidaceae), an addition of an alien plant species to the flora of Ladakh, India. *Vegetos*, 37(1), 373-378. **I.F 0.45**

13. Salam, N., Sidhu, H. K., Shaban, S., Reshi, Z. A., & **Shah, M. A.** (2024). Climate change scenarios predict reduction in suitable habitats and range shifts for *Ophiocordyceps sinensis* (Berk.) in Hindu Kush Himalaya. *Journal of Asia-Pacific Biodiversity*. **I.F 0.65**

2023

14. Afshana, Reshi, Z.A., **Shah, M.A.**, Malik, R., Rashid, I. (2023) Species composition of root associated mycobiome of ruderal invasive *Anthemis cotula* L. varies with elevation in Kashmir Himalaya. *International Microbiology*, doi.org/10.1007/s10123-00359-9 **I.F 3.2**
15. Khan, I., Bashir, N., Pandith, S., **Shah, M.A.**, Reshi, Z., & Shahzad, A. (2023). Rhubarb: A novel model plant to study the conundrum of calcium oxalate synthesis. *Food Chemistry*, 137458 **I.F 9.3**
16. Verma, S., Sofi, I.I., Ganie Aijaz H., **Shah, M.A.**, Sharma N. (2023). Incidence and frequency of desynapsis in *Eremurus persicus* (Jaub. & Spach) Boiss. (Asphodelaceae) – A native and important medicinal plant species of Western Himalaya. *Caryologia* 76(1): 15-26. doi: 10.36253/caryologia-1904 **I.F 0.69**
17. Sofi, I. I., **Shah, M. A.**, & Ganie, A. H. (2023). Integrating human footprint with ensemble modelling identifies priority habitats for conservation: a case study in the distributional range of *Arnebia euchroma*, a vulnerable species. *Environmental Monitoring and Assessment*, 195(8), 914-914 **I.F 3.30**
18. Khan, M. I., Pandith, S. A., **Shah, M. A.**, & Reshi, Z. A. Calcium oxalate crystals, the plant "gemstones": Insights into their synthesis and physiological implications in plants. *Plant & cell physiology*, pcd081. **I.F 5.7**
19. Khan I., Bashir, N., Pandith S., Shahzad A., **Shah, M.A.**,. (2023) Co-occurrence of two ascomycete endophytes as the specialized metabolite production partners in *Rheum spiciforme* Royle, *Symbiosis*, doi:10.1007/s13199-023-00915 **I.F 3.1**
20. Zargar SA., Ganie A H., Reshi ZA., Khan, I., **Shah, M.A.**,. *Oxalis corniculata* L. (Oxalidaceae) an addition of an alien plant species to the flora of Ladakh, India, *Vegetos*, doi:10.1007/s42535-023-00612-6 **I.F 0.2**
21. Khan, I., Bashir, N., Pandith S.,**Shah, M.A.**, Shahzad A. (2023) Low temperature stress modulates the biochemical, metabolic, and molecular behavior of the Trans-Himalayan medicinal herb *Rheum spiciforme* Royle (spiked rhubarb). *Industrial Crops & Products*, 193, 116154 **I.F 6.5**

2022

22. Min, S., Rosche C.,**Shah, M.A**, Ylva, L. (2022) Acquisition and evolution of enhanced mutualism – an underappreciated mechanism for invasive success?" *The ISME Journal-Nature*. <https://doi.org/10.1038/s41396-022-01293-w> **I.F 11.15**
23. Sporbert, M., Jakubka, D., Bucher**Shah, M.A.**....(2022) Functional traits influence patterns in vegetative and reproductive plant phenology - a multi-botanical garden study. *New Phytologist* DOI: 10.1111/nph.18345 **I.F 10.32**
24. Aravind, N.A., Shaanker, M.U., Bhat H. N., Chales, B., UmaShaanker, R, **Shah M.A.**, Ravikanth, G. (2022). Niche shift in invasive species: is it a case of "home away from home" or finding a "new home"? *Biodivers Conserv.* <https://doi.org/10.1007/s10531-022-02447-0> **I.F 3.15**.
25. Obieze, C.C., Wani, G.A., **Shah, M.A.**,Khasa, D.P. (2022) Anthropogenic activities and geographic locations regulate microbial diversity, community assembly and species sorting in Canadian and Indian freshwater lakes. *Science of the Total Environment* doi.org/10.1016/j.scitotenv.2022.154292 **I.F 10.75**

26. Dar, M.A., Shaheen I., Khan AA., **Shah, M.A** (2022) "*Centaurea iberica* invasion causes homogenization of diverse plant communities", *Biologia* (doi: <https://doi.org/10.1007/s11756-022-01165-w>). **I.F 1.35**
27. Wani S., Kaloo Z.A., Ganie, A.H., **Shah M.A.**, Tali, B.A (2022) Micropropagation and arbuscular mycorrhizae assisted growth in *Phlomis cashmeriana* Royle ex Benth., an endemic medicinal herb of Kashmir Himalaya, *Journal of Herbs, Spices & Medicinal Plants*, DOI: [10.1080/10496475.2022.2047866](https://doi.org/10.1080/10496475.2022.2047866) **I.F 0.9**
28. Yaqoob, S., Jan I., Reshi, Z., Rashid I., **Shah, M.A.** (2022) Risk analysis of fast spreading species in a Kashmir Himalayan National Park (Dachigam) for better monitoring and management, *Risk Analysis* DOI: 10.1111/risa.13913; **I.F 4.0**
29. Jan I., Yaqoob, S., Reshi, Z., Rashid I., **Shah, M.A.** (2022) Risk assessment and management framework for rapidly spreading species in a Kashmir Himalayan Ramsar site. *Environmental Monitoring and Assessment*, 194:175, 10.1007/s10661-022-09764-5 **I.F 2.5**
30. Sofi I.I., Zargar SA., Ganie, AH., **Shah M.A.** (2022) Distribution dynamics of *Arnebia euchroma* and associated plant communities in Trans-Himalayan Ladakh region in relation to local livelihoods under climate change, *Trees, Forests and People*, 100213, doi.org/10.1016/j.tfp.2022.100213.
31. Pandith, SA., Dhar, N., Bhosale, S. Barvkar VT., Razdan, S., **Shah, M.A.**, Latoo SK *et al.* (2022). Molecular characterization and differential expression of an aromatic heptaketide producing type III plant polyketide synthase from Himalayan rhubarb. *Plant Biotechnol Rep* <https://doi.org/10.1007/s11816-022-00741-5> **I.F 2.1**
32. Yaqoob, S., Jan I., Reshi, Z., Rashid I., **Shah, M.A.** (2022) Composition, introduction history and invasion status of alien flora in Dachigam National Park of Kashmir Himalaya. *Proceedings of the Indian National Science Academy* <https://doi.org/10.1007/s43538-022-00063-8> **I.F 0.9**
33. Sofi, I. I., Verma, S., Ganie, A. H., Sharma, N., & **Shah, M. A.** (2022). Threat status of three Himalayan medicinally important plant species and conservation implications. *Nature Conservation Research* doi.org/10.024189.ncr/22-006. **I.F 1.7**

2021

34. Sofi, I.I., Verma, S., Charles, B.... **Shah MA** (2021) Predicting distribution and range dynamics of *Trillium govanianum* under climate change and growing human footprint for targeted conservation. *Plant Ecol* <https://doi.org/10.1007/s11258-021-01189-3> **I.F 1.8**
35. Wani, GA., Khan Asgar, Afshana, Dar M., Tekeu H, **Shah M.A.**, (2021) Clonality in invasive alien macrophytes in Kashmir Himalaya: a stage-based approach. *Aquatic Sciences*, 84:12 **I.F 3.6**
36. Dar M., Wani, GA., Afshana, **Shah M.A.**, Reshi, Z., A. (2021) Is ploidy status related to growth form? Insights from the alien flora of Kashmir Himalaya. *Acta Physiologiae Plantarum*, 43, 164 **I.F 2.35**
37. Wani, GA., Khan A., Dar M., **Shah M.A.**, Reshi, Z., A. (2021) Next generation high throughput sequencing to assess microbial communities: An application based on water quality. *Bulletin of Environmental Contamination and Toxicology* <https://doi.org/10.1007/s00128-021-03195-> **I.F 1.7**

38. Khan MA, Hussain K, **Shah MA** (2021) Ecological restoration of habitats invaded by *Leucanthemum vulgare* that alters key ecosystem functions. *PLoS ONE* 16(3): e0246665 **I.F 2.7**
39. Mushtaq, S., Reshi, Z.A., **Shah, M.A.** Bipins, C (2021) Modelled distribution of an invasive alien plant species differs at different spatiotemporal scales under changing climate: a case study of *Parthenium hysterophorus* L. *Tropical Ecology*, doi.org/10.1007/s42965-020-00135-0 **I.F 0.7**
40. Zargar, S.A., Ganie, A.H., Reshi, Z.A., **Shah M.A** and Sofi, I.I (2021) *Cotula anthemoides* L. (Asteraceae): A new record to flora of Ladakh, India *Pleione* 15(1): 69 - 73.
41. Ravikumar KS, Ramya H, Ajith TA, **Shah M.A.**, Janardhanan KK (2021) Bioactive extract of *Fomitopsis pinicola* rich in 11- α - acetoxymehivorin mediates anticancer activity by cytotoxicity, induction of apoptosis, inhibition of tumor growth, angiogenesis and cell cycle progression. *Journal of Functional Foods*, 78, 104372, **I.F 3.30**
42. Ramya H., K S. Ravikumar, Z. Fathimathu, K.K. Janardhanan, T. A. Ajith, **Shah M.A.**, Ramona F. & Z.A. Reshi (2021): Morel mushroom, *Morchella* from Kashmir Himalaya: a potential source of therapeutically useful bioactives that possess free radical scavenging, anti-inflammatory, and arthritic edema- inhibiting activities, *Drug and Chemical Toxicology*, DOI: 10.1080/01480545.2021.1894750 **I.F 1.96**
43. Gulzar, N., Ali, S., **Shah, M.A. et al.** (2021) Silicon supplementation improves early blight resistance in *Lycopersicon esculentum* Mill. by modulating the expression of defense-related genes and antioxidant enzymes. *3 Biotech* **11**, 232. **I.F 2.27**

2020

44. Wani, G.A., **Shah M.A.**, H. Takeu., Reshi, Z., A. A. Atangana., Khasa. D.P., (2020) Phenotypic variability and genetic diversity of *Phragmites australis* in Quebec and Kashmir reveal contrasting population structure. *Plants*, doi:10.3390/plants9101392 **I.F 2.6**
45. Salam, N., Reshi, Z., **Shah M.A.** 2020) Habitat suitability modelling for *Lagotis cashmeriana* (ROYLE) RUPR., a threatened species endemic to Kashmir Himalayan alpine. *Geology, Ecology and Landscapes*, doi.org/10.1080/24749508.2020.1816871
46. Wani, GA., Reshi, Z., Khasa. D.P., **Shah M.A.** (2020) Phenotypic trait variation in invasive and non-invasive alien species of *Potamogeton* in Kashmir Himalayan lakes of varying trophic status. *Acta Physiologiae Plantarum*, 42:73 **I.F 1.9**
47. Rehman, S.; Jermy R., Asisri, S.M., **Shah M.A.**, Farooq, R. et al. (2020) Using *Fomitopsis pinicola* for bioinspired synthesis of titanium dioxide and silver nanoparticles, targeting biomedical applications. *Royal Society of Chemistry Advances*, DOI: 10.1039/D0RA02637A **I.F 3.11**
48. Rehman, S.; Farooq, R.; Jermy, R.; Mousa Asiri, S.; Ravinayagam, V.; Al Jindan, R.; Alsalem, Z.; **Shah, M.A.**; Reshi, Z.; Sabit, H.; Alam Khan, F. A Wild *Fomes fomentarius* for Biomediation of One Pot Synthesis of Titanium Oxide and Silver Nanoparticles for Antibacterial and Anticancer Application. *Biomolecules* **2020**, *10*, 622. **I.F 4.6**
49. Dar, M.A., Wani, GA., Reshi, Z., Alqarawi, A.A., Abdellah E.F., **Shah M.A.** (2020) Stage-specific ploidy level variations in invasive species in comparison to rare endemics in Kashmir Himalaya. *Flora*, 262, 151525, doi.org/10.1016/j.flora.2019.151525, **I.F 1.4**
50. Dar, M.A., Afshana, Sheikh, A.H., Wani, GA., Reshi, Z., **Shah M.A.** (2020) Dynamics of

mycorrhizal mutualism in relation to plant invasion along an altitudinal gradient in Kashmir Himalaya. *The Botanical Review*, DOI: 10.1007/s12229-020-09221-3 **I.F 3.82**

2019

51. Gaser A., Afreen A., Scott M., Marcus T., **Shah M.A.**, Damase K., Ruth M., Albert Ko., Jie Chen (2020) DNA aptamer-based non-faradaic impedance biosensor for detecting *E. coli*. *Analytica Chimica Acta* 1107, 135e144. **I.F 6.9**
52. **Shah M.A.** (2020) Think beyond pandemics and safeguard earth's life support system. *Science*, April 24, e-letter.
53. Rosche, C., Hensen, I., Schaar, A., Zehra U.,**Shah, M.A** (2019) Climate, not native vs. non-native ranges, controls genetic structure and common garden performance of a cosmopolitan weed. *Ecological Monographs*, DOI: 10.1002/ecm.1386. **I.F 10.3**
54. Pandith S. A., Ramazan, S., Khan M, I., Reshi ZA, **Shah, M.A** (2019). Chalcone synthases (CHSs): The symbolic Type III polyketide synthases. *Planta*, 251, 15. **I.F. 3.37**
55. Khan, MI., Pandit, S.A., Ramzan, S., **Shah. M.A.**, Reshi, ZA (2019) *Rheum moorcroftianum* (Polygonaceae) in Kashmir Himalaya. *Phytotaxa*, 405 (5), 269-275. **I.F. 1.18**

2018

56. Lian C. T., Afreen Anwar, Scott M, Gaser N. A., Donghai L, Zhimin Y., Anh H. N., Mark T. M., **Shah, M. A.**, Jian Yang, Jie Chen & Xiujie S. Li (2018) Immuno-impedimetric Biosensor for Onsite Monitoring of Ascospores and Forecasting of *Sclerotinia* Stem Rot of Canola. *Nature Scientific Reports*, 8:12396 | DOI:10.1038/s41598-018-30167-5 **I.F. 4.48**
57. GA Wani, **Shah M.A.**, ZA Reshi, MA Dar (2018) Polyploidy determines the stage of invasion: clues from Kashmir Himalayan aquatic flora. *Acta Physiologiae Plantarum* 40 (3), 58 **I.F. 1.48**
58. Lolu A, Ahluwalia AS, Sidhu, MC, Reshi, ZA, Shah MA, Lolu SJ (2018) Wetlands: an imbroglio of interlinked carbon pools. *Tropical Ecology*, 59(3): 383–395, **I.F. 0.7**
59. D Adhikari, Z Reshi, BK Datta, SS Samant, A Chettri, K Upadhaya, **Shah M.A.** et al. (2018) Inventory and characterization of new populations through ecological niche modelling improve threat assessment. *Current Science*, 114 (3), 519-531 **I.F. 0.756**
60. Ahmad S. S., Reshi, Z. A., **Shah, M. A.**, Rashid, I. (2018) Phytoremediation of Heavy Metals by *Salvinia natans* in a Kashmir Himalayan RAMSAR Site. *Wetland Science and Practice*, 35 (2) 81-85.

2017

61. Wani RA, Ganai BA, **Shah MA**, Uqab B (2017) Heavy Metal Uptake Potential of Aquatic Plants through Phytoremediation Technique - A Review. *J Bioremediat Biodegrad* 8: 404
62. Shafi, S., Kamili, A. N., **Shah, M. A.**, Parray, J. A., & Bandh, S. A. (2017). Aquatic bacterial diversity: Magnitude, dynamics, and controlling factors. *Microbial Pathogenesis*. **I.F: 1.30**

63. Shafi, S., Kamili, A. N., **Shah, M. A.**, Bandh, S. A., & Dar, R. (2017). Dynamics of bacterial class Bacilli in the deepest valley lake of Kashmir-the Manasbal Lake. *Microbial Pathogenesis*. **I.F: 1.30**

2016

64. Pandith, S.A., Dhar, N., Rana, S., Bhat, W.W., Kushwaha, M., Gupta, A.P., **Shah, M.A.**, Vishwakarma, R. and Lattoo, S.K. (2016). Characterization and functional promiscuity of two divergent paralogs of Type III plant polyketide synthases from *Rheum emodi* Wall ex. Meissn. *Plant physiology*, pp.pp-00003. **I.F: 8.3**
65. Ahmad S. S., Reshi, Z. A., **Shah, M. A.**, Rashid, I., Ara, R., & Andrabi, S. M (2016) Heavy metal accumulation in the leaves of *Potamogeton natans* and *Ceratophyllum demersum* in a Himalayan RAMSAR site: management implications. *Wetlands Ecology and Management*, 24:469–475. **I.F: 1.62**
66. Rasool, N., Reshi, Z. A., Khasa, D. P., Roshan, M., & **Shah, M. A.** (2016). Invasion by *Conyza sumatrensis* alters soil microbial community structure in urban ecosystems. *Ecological Processes*, 5: 10. DOI 10.1186/s13717-016-0054-4, Springer.
67. Ganie, A.H., Bashir, B.A., Khuroo, A., Tali, B.A., Reshi, Z.A., **Shah, M. A.** & B. A. Wafai (2016) A New Record of an Invasive Aquatic Plant *Hydrocharis morsus-ranae* (Hydrocharitaceae), Reaching to the Kashmir Himalaya. *The Journal of Japanese Botany*, 91: 100–104.
68. Abeer Hashem, E. F. Abd_Allah, A. A. Alqarawi, A. A. Al-Huqail, and **Shah, M. A** (2016) Induction of Osmoregulation and Modulation of Salt Stress in *Acacia gerrardii* Benth. by Arbuscular Mycorrhizal Fungi and *Bacillus subtilis* (BERA 71), *BioMed Research International*, 11 pages doi:10.1155/2016/6294098, **I.F: 2.134**

2015

69. Shafi, S., Kamili, A. N., **Shah, M. A.** & Bandh, S. A. (2015). Isolation, Identification and Distribution of Culturable Bacteria in Manasbal Lake, Kashmir Himalaya. *Proceedings of the National Academy of Sciences, India Section B: Biological Sciences*, 1-6.DOI: 10.1007/s40011-015-0582-1, Springer, **I.F: 0.40.**
70. **Shah, M. A.**, Beaulieu, M. E., Reshi, Z. A., Qureshi, S., & Khasa, D. P. (2015). A cross-city molecular biogeographic investigation of arbuscular mycorrhizas in *Conyza canadensis* rhizosphere across native and non-native regions. *Ecological Processes*, 4(1), 1-9. Springer.
71. Dar, P, Zafar Reshi and **Shah, M. A.** (2015). Roads act as corridors for the spread of alien plant species in the mountainous regions: A case study of Kashmir Valley, India. *Tropical Ecology*, 56(2), 183-190. **I.F: 0.7**
72. Andrabi, S.M., Reshi, Z.A., **Shah, M.A.**, & Qureshi, S. (2015). Studying the patterns of alien and native floras of some habitats in Srinagar city, Kashmir, India. *Ecological Processes*, 4(1), 1-12. Springer.
73. Varma, V., Ratnam, J., Viswanathan, V., Osuri, A. M., Biesmeijer, J. C., Madhusudan, M. D., ... **Shah M.A.**, & Sundaram, B. (2015). Perceptions of priority issues in the conservation of biodiversity and ecosystems in India. *Biological Conservation*, 187, 201-211. Elsevier, **I.F: 7.49.**

2014

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82. Rasool, N., Reshi, Z. A., & **Shah, M. A.** (2014). Effect of butachlor (G) on soil enzyme activity. *European Journal of Soil Biology*, 61, 94-100. **I.F: 2.0**, Elsevier.

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83. Andrabi, S.S., Reshi, Z., **Shah, M. A.**, et al. (2013) Phytoremediation potential of *Phragmites australis* in Hokersar wetland – a Ramsar site of Kashmir Himalaya. *International Journal of Phytoremediation*, 16(7-12): 1183-91. **I.F: 1.466**
84. Claude Lavoie, **Shah, M. A.**, Alexandre Bergeron & Paul Villeneuve (2013) Explaining invasiveness from the extent of native range: new insights from plant atlases and herbarium specimens. *Diversity and Distributions* 19, 98–105. **I.F: 6.2**
85. Shafi S., Kamili A.N., **Shah, M. A.**, Bandh S.A. (2013) Coliform bacterial estimation: A tool for assessing water quality of Manasbal Lake of Kashmir, Himalaya. *African Journal of Microbiology Research* 7(31), 3996-400, ISSN: 1996-0808; **I.F: 0.5**

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86. **Shah, M. A.**, Zafar Reshi & Irfan Rashid (2012) Synergistic effect of herbivory and mycorrhizal interactions on plant invasiveness. *African Journal of Microbiology Research* 6(19), 4107-4112. **I.F: 0.5**
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88. **Shah, M. A.**, Zafar Reshi & N. Rasool (2010). Plant invasion induces shift in Glomalean spore diversity. *Tropical Ecology*, **51**(2S): 317-323 **I.F: 0.7**
89. **Shah, M. A.**, Zafar Reshi (2010). Phosphorus application in relation to mycorrhizal association of *Anthemis cotula* L., an invasive species in the Kashmir Himalaya, India. *Mycorrhiza News* **22** (2), 8-12.

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91. **Shah, M. A.**, Zafar Reshi & Damase Khasa (2009). Arbuscular mycorrhizas: drivers or passengers of alien plant invasion, *Botanical Review*, **75**:397–417. **I.F 2.208**
92. **Shah, M. A.**, Zafar Reshi & Damase Khasa (2009) Mycorrhizal status of some alien invasive plants of the Kashmir Himalaya, India. *Mycorrhiza*, **20**, 67-72. **I.F: 3.985**
93. Parray, S.Y., Aleem, A., Nigam, G & **Shah, M. A.**, (2009). Land-use pattern in the catchment and its impact on the ecology of a suburban wetland (Chatlam), Kashmir Himalaya, India. *Indian Journal of Applied and Pure Biology*, **24** (2) 521-527.

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94. **Shah, M. A.**, Zafar Reshi & Irfan Rashid (2008) Mycorrhizal source and neighbour identity differently influence *Anthemis cotula* L. invasion in the Kashmir Himalaya, India. *Applied Soil Ecology*, **40**: 330-337. **I.F: 4.452**
95. **Shah, M. A.**, Zafar Reshi & Irfan Rashid (2008) Mycorrhizosphere mediated Chamomile invasion in the Kashmir Himalaya, India. *Plant and Soil*, **312**: 219-225. **I.F: 4.63**
96. Zafar Reshi, **Shah, M. A.**, Irfan Rashid & Anzar A. Khuroo (2008) Alien plant invasions: Threat to wetland health and public wealth. *ENVIS Newsletter Sarovar Saurabh* **4**: 2-5.

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97. **Shah, M. A.**, & Zafar Reshi (2007) Invasion by alien *Anthemis cotula* L. in a biodiversity hotspot. Release from native foes or relief from alien friends. *Current Science* **92**: 21-22. **I.F: 0.905**

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98. **Shah, M. A.**, & Zafar Reshi (2005) Arbuscular mycorrhizal symbiosis: Need for an eco-centric approach. *Applied Botany Abstracts* **25**: 231-240.
99. **Shah, M. A.**, & Zafar Reshi (2005) Incidence of arbuscular mycorrhizae in *Pinus wallichiana* A.B. Jackson of Kashmir Himalaya. *Mycorrhiza News*, **17**: 11-14.

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100. Khan M A, **Shah, M. A.**, Mir S S & Suzana Bashir (2004) The environmental status of a Kashmir Himalayan wetland game reserve: Aquatic plant communities and eco-restoration measures. *Lakes & Reservoirs: Research & Management* **9**:2, 125-132. **I.F: 1.1**
101. Khan M A & **Shah, M. A.**, (2004) Hydrology and sediment loading of Hokersar wetland sanctuary in the Kashmir Himalaya, India. *The Indian Forester*, **130**: 899-910.

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102. Khan M A & **Shah, M. A.**, (2003) Phosphorus load concentration in a Kashmir Himalayan game reserve-Hokersar wetland. *Indian Jr. of Soil Conservation*. **31**:3, 243-247

POLICY DOCUMENTS

UN-IPBES Assessment Report

- Balachander, G., Halmy, M.W.A., Parlee, B., Biggs, D., Chatakonda, M., Cisneros-Montemayor, A.M., Cormier-Salem, M-C., Dasgupta, R., Devkota, S., Diniz, J., Elfaki, A., Hiwasaki, L., Lichtenstein, G., Richter, A., **Shah, M.A.**, Shanley, P., Shrestha, U.B., Lee, T.M., Bayarbaatar, B. and Kieling, D. (2022) Chapter 4: The drivers of the sustainable use of wild species. In: IPBES Assessment of the Sustainable Use of Wild Species report. Fromentin, J-M., Emery, M., Donaldson, J., Danner, M-C., Hallosserie, A., Kieling, D., (eds.). UN-IPBES Secretariat, Bonn, Germany. <https://doi.org/10.5281/zenodo.6451494>.

BOOKS

- **Manzoor A. Shah** (2014) Mycorrhizal Symbioses: Novel Dimensions in the Changing World. Springer. ISBN 978-81-322-1864-7
- Gowhar A. Wani & **Manzoor A. Shah** (2020) The Eco-physiological and Genetic Basis of Invasiveness. Cambridge Scholars Publishing, ISBN 978-1-5275-5214-2

BOOK CHAPTERS

1. Lone F.A., **Shah M.A.**, S.A. Dar, N. Taban, S.K. Dhar S. Ahmad and I.A. Mir (2022) Algal Blooms in Dal Lake of Kashmir Himalayan Valley: Causes, Impacts and Management Measures. In: Transforming Agriculture for Self-Reliant India, International Books & Periodical Supply Service, New Delhi, India.
2. Zehra U., Khan N.F., **Shah M.A.**, Reshi Z.A. (2022) Cultural and Socio-Economic Perspective of Some Promising Edible Plants from Uttarakhand Himalaya. In: Masoodi M.H., Rehman M.U. (eds) Edible Plants in Health and Diseases. Springer, Singapore. https://doi.org/10.1007/978-981-16-4880-9_9
3. **Shah M.A.**, Bashir A, Reshi Z.A (2020). Aquatic ecosystems of Jammu & Kashmir State. In: Dar G., Khuroo A. (eds) Biodiversity of the Himalaya: Jammu and Kashmir State. Topics in Biodiversity and Conservation, vol 18. Springer, Singapore.
4. Reshi Z.A., Dar P.A., Bhat M.S., **Shah M.A.**, Andrabi S.M. (2020) Urbanization and its Impact on Biodiversity in the Kashmir Himalaya. In: Dar G., Khuroo A. (eds) Biodiversity of the Himalaya: Jammu and Kashmir State. Topics in Biodiversity and Conservation, vol 18. Springer, Singapore
5. Abeer Hashem, Abdul Aziz Alqarawi, **Shah M.A.**, ...Elsayed Fathi Abd_Allah (2018) Desert truffles in Saudi Arabia: Diversity, ecology and conservation, Conventional to Modern Approaches. In book: Microbial Resource Conservation. DOI: 10.1007/978-3-319-96971-8_13.
6. Ahmad S.S., Reshi Z.A., **Shah M.A.**, Rashid I. (2016) Constructed Wetlands: Role in Phytoremediation of Heavy Metals. In: Ansari A., Gill S., Gill R., Lanza G., Newman L. (eds) Phytoremediation, pp 291-304.. Springer, ISBN: 978-3-319-40146-1
7. Zafar A. Reshi, Nazima Rasool, Pervaiz A. Dar, Waheeda Rehman, and **Shah, M. A.**, (2013) Impact of invasive alien plant species on aboveground and belowground diversity in the Kashmir Himalaya, India. In: *Invasive Plant Ecology* Editor(s): Shibu Jose, H. Pal Singh, Daizy Rani Batish, Ravinder Kumar Kohli, CRC Press - 302 Pages.

8. Z. Reshi., **Shah, M. A.**, Rashid, I., Rasool, N. (2012) *Anthemis cotula*, a flagship invasive species of Kashmir Himalaya. *Invasive Alien Plants: An Ecological Appraisal for the Indian Subcontinent* (eds J.R. Bhatt *et al.*), CAB International.
9. **Shah, M. A.**, Z. Reshi (2012) Invasion by alien macrophytes in freshwater ecosystems of India. *Invasive Alien Plants: An Ecological Appraisal for the Indian Subcontinent* (eds J.R. Bhatt *et al.*) pp 199-215, CAB International.
10. Khan M A & **Shah, M. A.**, (2008) Studies on nitrogen sequestration in Hokersar wetland of Kashmir Himalaya. In: *Water Resources Management and Sustainable Agriculture* (eds) Khan M A. APH Publ. Corp, New Delhi, India, pp281-288.
11. **Shah, M. A.**, & Zafar Reshi. (2008) Arbuscular Mycorrhizal Biotechnology: Approaches, Challenges and Prospects. In: *Biofertilizers*. (Ed.) P.C. Trivedi. pp 258-273. Pointer Publishers, Jaipur, India.
12. Khan M A & **Shah, M. A.**, (2004) Land-use patterns in the catchment and its impact on the ecology of a sub-urban wetland (Hokersar), Kashmir Himalaya. In: *Agriculture and Environment* (eds) Khan M A & Zargar M Y. APH Publ. Corp, New Delhi, India, pp281-288.

PATENTS

- Khan IA., Pandith S. & **Shah, M. A.**, Reshi Z. Development of an efficient and cost-effective kit for isolation and purification of Calcium Oxalate crystals from plant tissues, No. 202411002230A Publication Date: 02-02-2024

REVIEWING EXPERIENCE

Editorial assignments

- Associate Editor Nature Scientific Reports

Reviewer for Journals

- Journal of Biogeography; Ecological Applications; Ecology, Biological Invasions, Applied Soil Ecology; Plant Ecology; PlosOne; Bioremediation Journal; Tropical Ecology; Brazilian Journal of Botany; Current Science, Nutrient Cycling in Agroecosystems, International Journal of Phytoremediation, Biotropica

Book Review

- **Shah, M. A.**, (2007) Detritus and Decomposition in Ecosystems. By Reshi Z and S. Tyub, New India Publishers. *Current Science*, 92(2), 246

Status Papers

- Lone F. A., **Shah, M. A.**, Dar, S.A., Taban N., Dhar S.K., Ahmad, S., Mir. I.A (2021) Status paper on algal blooms in Dal lake of Kashmir Himalayan valley (Ed. F A. Lone), published at SKUAST-K, Press, J&K.
- Lone F. A., Ara S., **Shah, M. A.**, Taban N.,, Mir. I.A (2021) Status paper on Azolla: an invasive weed in Dal lake of Kashmir Himalayan valley (Ed. F A. Lone), published at SKUAST-K, Press, J&K.

DSTINGUISHED MEMBERSHIPS

- Member Monitoring Committee, Govt. of Jammu & Kashmir for Eco-sensitive Zones of Dachigam National Park, Overa-Aru Wildlife Sanctuary and Thajwas Wildlife Sanctuary and suggesting measures for construction of hotels and resorts for these protected areas
- Member Academic Committee for setting up the School for Field Ecology and Conservation, National Centre for Biological Sciences (NCBS), Bangalore.
- Member Project Assessment Committee, IERP, National Mission on Himalayan Studies (NMHS), GPIHED, Ministry of Environment, Forests & Climate Change (**MoEF&CC**), Govt. of India.
- Member Project Completion Report Committee (PCR) for Organismal and Evolutionary Biology, Science & Engineering Board (**SERB**), Govt. of India.
- Co-opted Member for Project Advisory Committee (PAC) for **Organismal and Evolutionary Biology**, Science & Engineering Board (**SERB**), Govt. of India.
- Member at Large of Executive Council, Shastri Indo-Canadian Institute (SICI).
- Member of Task Force on **Basic Plant Biology, Agriculture and Frontier Areas**, Department of Biotechnology (**DBT**), Ministry of Science & Technology, Govt. of India.
- Member, Scientific Advisory Committee, Lakes and Waterways Development Authority (LAWDA), Govt. of J&K.
- Member Expert Committee for ecological restoration of Dal Lake, University of Kashmir.
- Member of Species Survival Commission (SSC), the largest of the six commissions of IUCN - the International Union for Conservation of Nature for the quadrennial 2013-2019, and a member of Invasive Species Specialist Group (ISSG).
- Representative of University of Kashmir for Shastri Indo-Canadian Institute

Reviewer for Grants

- Texas Sea Grant Research Proposal, USA on mycorrhizal inhibition and allelopathy behind the successful invasion
- Different proposals for the DBT, Govt. of India.

EXTRAMURALLY FUNDED RESEARCH PROJECTS

| Title of the project | Funding agency | Outlay (INR) | Status |
|---|---|--------------|-----------|
| International Projects | | | |
| Proactive management models for the effects of climate change on the range expansion of invasive species | Indo-US project (UGC) | 1,25,00,000 | Completed |
| Biomonitoring of water quality in relation to human Health using biosensors and improvements through nanoparticle-based purification systems (PI & Coordinator) | DBT& IC-IMPACTS (Indo-Canadian) | 1,48,00,000 | Completed |
| Towards a better mechanistic understanding of colonization: Biogeographic analysis and population genetics of two highly invasive Asteraceae species (PI) | Indo-German (DST-DAAD) collaborative project | 7,23,000 | Completed |
| National Network Projects | | | |
| Value added products from invasive plant species for improving livelihoods of marginalized | DBT (Himalayan Bioresource Mission) | 85, 66, 800 | Underway |

| | | | |
|---|--|-------------|-----------|
| communities in Indian Himalaya (Coordinator & PI) | | | |
| Technological innovations for development of functional foods from fermented ethnic foods of Indian Himalaya | DBT (Himalayan Bioresource Mission) | 35,6,560 | Underway |
| Preventing extinction and improving conservation status of threatened plants through application of biotechnological tools (Co-PI) | DBT (All India Network project) | 62,50,000 | Completed |
| Characterization of microflora of rhizosphere associated with saffron with a target to develop consortia of beneficial microbes (Co-PI) | Coordinated DBT Project | 32,50,000 | Completed |
| Search for novel anticancer bioactives from Kashmir Himalayan mushrooms (PI& Coordinator) | DBT National Network Project | 31,23,000 | Completed |
| Strategy and action plan for strengthening the ecological integrity of the Dal Lake (Coordinator) | UNDP (in collaboration with ATREE) | 35,00,000 | Completed |
| Estimating Economic Values and Analyzing Institutional & Legal Frameworks for claiming REDD+ and Ecotourism benefits for Protected Area – Ramsar Wetlands: Exploration through Loktak and Hokersar Wetlands. (PI) | MoEF (In collaboration with IIFM, Bhopal) | 75,000 | Completed |
| Invasive Alien Plants in Himalayas: Status, Ecological Impact and Management (co-partner) | Commissioned Coordinated Project by MoEF & CC under NMHS | 62,20,000 | Underway |
| Ecology, monitoring, recovery and bio-prospection of some threatened plant species of Jammu, Kashmir and Ladakh in relation to regional socio-economic development (P.I) | Medium grant MoEF & CC under NMHS | 61,94,200 | Underway |
| Biotechnological interventions in the management of protected areas (PI) | DBT | 49,50,000 | Underway |
| Long-term monitoring of biodiversity and ecosystem processes in Indian grasslands (partner) | MoEF & CC | 53,88,400 | Underway |
| Other projects | | | |
| Characterization of alien aquatic flora in Kashmir Himalaya for prediction and management of plant invasions (PI) | UGC (Major Project) | 7,32,000 | Completed |
| Understanding plant invasions from genetic, epigenetic and chemical ecological perspective for better restoration and management | MHRD | 5,25,00,000 | Underway |
| Vegetation mapping of Dal lake | LAWDA, Govt. of J&K | 1,15,000 | Completed |
| Mapping, Modelling, Monitoring and Managing Invasive Species in some Protected Areas of Kashmir Himalaya, India (PI) | DBT, New Delhi | 68,91,400 | Completed |
| Centre with Potential of Excellence in Himalayan Biodiversity: documentation, bioprospection and conservation | UGC | 50,23,5423 | Completed |

| | | | |
|--|------|-----------|----------|
| Functional diversity, phenology, and frost resistance in plants under extreme Himalayan environments | SERB | 48,09,992 | Underway |
|--|------|-----------|----------|

INVITED SPEAKING

1. Climate-smart and AI-assisted biodiversity conservation and ecosystem management, in *Refresher Course in Earth System Sciences* organized by MTTC (HRDC), University of Kashmir on 26 Feb, 2025.
2. Ecological resilience, in *Refresher Course in Earth System Sciences* organized by MTTC (HRDC), University of Kashmir on 7th March, 2025.
3. Ecology-inspired AI for wiser sustainability decisions, in *International Workshop titled "Integration of Artificial Intelligence and Machine Learning in Plant Systematics & Biodiversity"* organized by Department of Botany, Central University of Jammu on February 17, 2025.
4. Demystifying the biotic controls of community structure and species invasion in a warming world in *International Workshop on Plant-Environment interactions & their ecological and agricultural consequences* organized by IISER-Pune SP University, Pune & Max Planck Institute, Germany from December 19-22, 2024 at Mumbai.
5. Deciphering the shifts in plant community structure and species phenology in a warming world at Department of Biosciences & Biotechnology, IIT-Kharagpur on 17-12-2024
6. Might and plight of mountains: need for long-term ecological monitoring, in *Refresher Course in Life Sciences* organized by Department of Botany & HRDC, University of Jammu and on 16-11-2024.
7. Integrated and long-term studies provide useful insights into changing mountain ecology: lessons from Himalaya, *International Workshop - DiverseK (Data Driven Decisions in Mountain Ecosystems)* organized by University of Innsbruck, **Austria**, October 3-4, 2024.
8. Re-envisioning transformative leadership roles in higher education in *Refresher Course* organized by Malaviya Mission Teacher Training Centre, University of Kashmir on 15-10-2024.
9. "Quality audit: deciphering the patterns of social vs. natural sciences" in *Refresher Course* organized by Malaviya Mission Teacher Training Centre, University of Kashmir on 09-10-2024.
10. "Making your academic journey more exciting and impactful" in *Faculty Induction Programme* organized by Malaviya Mission Teacher Training Centre, University of Kashmir on 15-07-2024.
11. "Science diplomacy for peace and progress" in *Refresher Course in Sciences* organized by Malaviya Mission Teacher Training Centre, University of Kashmir on 12-07-2024.
12. "Lessons from long-term monitoring of vegetation ecology under climate change" in *Indian Wildlife Ecology Conference-24* at NCBS, Bangalore from June 14-16, 2024.

13. “Ecological restoration of invaded habitats” in webinar on *Potential Biotechnological Approaches towards Ecosystem Restoration* organized by Department of Biotechnology (DBT), Ministry of Science & Technology, Govt. of India on June 5, 20124
14. “Sensing the pulse of climate warming in mountain ecosystems” in the *Science Academies’ Lecture Workshop on ‘Himalayan mountains and their life’* sponsored by the Joint Education Panel, Indian Academy of Sciences on May 10, 2024
15. *Science, society and sustainability* in Refresher Course on Research & Development organized by UGC-HRDC, University of Kashmir on 22-04-2024
16. Invited talk “*Comparing phenology and functional traits in native and non-native plant species pools: macroecological insights from multiple botanical gardens*” in PhenObs Spring Symposium, Germany on 18-04-2024.
17. “Phenology, functional traits and microclimate” in SERB sponsored workshop on ‘*Monitoring Phenology in an Era of Climate Change*’ at the University of Kashmir on March 4, 2024.
18. Invited talk “*Surging the sense of science in society*” on National Science Day, organized by the Department of Pharmaceutical Sciences, University of Kashmir on 05-03-2024.
19. Invited talk “*Accreditation and its role in quality of higher education*” in a Webinar organized by the Govt. Degree College, Kulgam on 14-02-2024.
20. *Writing manuscripts for quality publications* in Refresher Course on Human Rights organized for young faculty and research scholars by UGC-HRDC, University of Kashmir on 13-02-2024
21. *Microbial diversity in Indo-Canadian freshwater lakes and interaction with macrophytes* in International Conference on Biodiversity and Geochemistry of Deep and Extreme Earth Systems, organized by IIT Kharagpur on Feb1-3, 2024
22. *Multi-disciplinarity through the lens of NEP-2020* in NEP Orientation and Sensitization programme organized by Malviya Mission Teacher Training Centre, University of Kashmir on 03-01-2024
23. *Inter-disciplinary education in sync with Indian ethos* in NEP Orientation and Sensitization programme organized by Malviya Mission Teacher Training Centre, University of Kashmir on 23-12-2023
24. *From mind to paper: the art of manuscript writing* in Refresher Course organized for young faculty and research scholars by UGC-HRDC, University of Kashmir on 21-12-2023
25. Keynote talk “*Personifying plants: pain vs. pleasure*” in Induction Programme of Botany, Central University of Kashmir on 20-10-2023.
26. Invited talk “*Re-imagining life on science street*” in Regional Young Investigators Meeting, Srinagar on 20-09-2023.
27. Keynote talk “*Re-envisioning quality discourse in higher education*” in IQAC & IIC Coordinators Summit at GDC Sumbal on 02-09-2023.
28. Delivered an invited talk “*Herbivory of *Conyza canadensis* across native vs. non-native ranges*” in the iConnect Workshop organized at MPG Ranch, Montana, USA on 18-08-2023.
29. Plenary Talk *Global Environmental Change: Invitation to Biological Invasions* in International Conference on Sustainable Development Goals with special focus on Climate Action, organized by IUST, Awantipora on 09-08-2023. Also chaired a session on “Environmental pollution and bioremediation” in the said conference.

30. *Digital wellbeing in information age* in Refresher Course in IT organized by the Department of Computer Sciences & UGC-HRDC, University of Kashmir on 31-07-2023
31. Keynote lecture on “*SDGs and G-20 Presidency of India*” at Islamia College of Science & Commerce, Govt. of J&K on May 26, 2023
32. Keynote lecture on ‘Water Scenarios’ in National Seminar cum Workshop on *Conservation and restoration of lake waterbodies of UT of J&K* organized by GDC, Eidgah in collaboration Science, Technology and Innovation Council, Govt. of J&K on March 20, 2023.
33. Keynote address as Guest of Honour on ‘*Becoming part of a global sustainability agenda*’ in National Seminar on *India and the changing reality of globalized world* organized by Govt. Degree College for Women, Pulwama on March 20, 2023.
34. *Global science for global wellbeing* on the eve of National Science Day organized by IGNOU, Srinagar on 24-02-2023.
35. *Research funding for the beginners* on 3rd Annual Research Day of SKIMS, Soura on 28-12-2022.
36. *Linking Science to Society* in Refresher Course in Sciences organized by UGC-HRDC, University of Kashmir on 10-12-2022
37. *Making sense of science for society: lessons from global policy platforms* in the workshop on Science-Policy-Society Interface organized by Department of Environmental Sciences in collaboration with GDC Women’s Sopore on Dec. 5, 2022
38. *Hopeful history vs. hopeless future* in the Refresher Course conducted by HRDC & Environmental Studies, Punjab University, Chandigarh on 11-11-2022.
39. *An exciting walk on science street* in the special extension lecture series under DIQAU, Department of Environmental Sciences, University of Kashmir on 28-10-2022
40. *Transcending disciplines: Risks and rewards* in the Research Methodology workshop organized by Women’s College MA Road Srinagar & UGC-HRDC, University of Kashmir on 26-10-2022
41. *Novelty, originality and robust methodology make quality research* in the Research Methodology workshop organized by Department of Political Sciences, University of Kashmir on 21-10-2022
42. *Linking phenology and functional traits for species invasions* in the PhenObs workshop at German Institute of Integrative Biodiversity (iDiv), Germany from Sep. 12-15, 2022
43. *Building paradise in the hell* in the Research Methodology workshop organized by UGC-HRDC, University of Kashmir on 05-07-2022
44. *Reimagining the chaos of disciplines* in the Research Methodology lecture series organized by IIS, University of Kashmir on 21-06-2022
45. *Only one earth: living sustainably in harmony with nature* on World Environment Day celebrations organized by the Department of Environmental Sciences & Water Management, S.P. College, Cluster University, Srinagar on 05-06-2022.
46. *Extramural grant writing* to the young faculty of SKIMS, Soura and allied institutions in a faculty orientation programme organized by Department of Clinical Research on 19-03-2022.

47. Chaired a session in the International Conference on the eve of Unani Day organized by the Central Council for Research in Unani Medicine (CCRUM), Ministry of Ayush, Government of India from March 10-11, 2022.
48. *Biodiversity conservation: Roads ahead.*, in Vigyan Prasar sponsored Science Festival (SCoPE) organized jointly by Central University of Kashmir and University of Kashmir, on 27-02-2022
49. *OneHealth without OneWealth doesn't Selleth*, in Orientation programme for college and university teachers, organized by UGC-HRDC, University of Kashmir, on 22-01-2022
50. *Art of asking great research questions*, in Research Methodology Workshop organized by UGC-HRDC, University of Kashmir, on 21-12-2021.
51. *Plant phenological studies in Kashmir Himalaya: Recent research insights and future trajectories*, in PhenObs seminar, Organized by PhenObs Network, Germany, on 07-10-2021.
52. *Reimagining the global environment to dispel the tragedy of commons*, in the webinar organized by the Department of Botany & IQAC, Women's College, Cluster University, on 19-06-2021
53. *Is ecological restoration the panacea for pandemics*, on the World Environmental Week organized by the NSS, Women's College, Cluster University, on 07-06-2021
54. *Evolutionary play of invasive species in the changing Himalayan theatre* in the National Seminar series organized by the Botanical Survey of India (HAWHRC), on 22-01-2021
55. *Benchmarks of quality and criteria for professional growth in higher education* in the International Research Methodology workshop organized by IIS, University of Kashmir on 12-01-2020
56. *Marriage of disciplines, not divorce, is the way forward* in the International Research Methodology workshop organized by IIS, University of Kashmir on 05-01-2020
57. *Long-term ecological research: a Himalayan perspective*, in the Refresher Course by the UGC-Human Resource Development Centre, University of Kashmir on 04-01-2020.
58. Delivered an invited talk in the Brainstorming cum consultation meeting on "*Himalayan Bioresources Mission*" on December 23, 2020 organized by DBT, Govt. of India
59. *Climate change exacerbates the threat of biological invasions to Himalayan biodiversity*, a special invited talk delivered in International Workshop cum Training Programme on Green growth strategies for climate resilience organized by Institute for Social & Economic Change, Bengaluru, on Nov, 28, 2020.
60. *Quality culture, higher education & RUSA* in the webinar organized by the Department of Higher Education, Kashmir on 06-08-2020.
61. *Pandemics in an ecological paradigm: learn from basics to lead from the front* in the webinar organized by the Govt. Degree College, Kishtawar on 22-06-2020.
62. *Institutional accreditation: challenges under changing frameworks* in workshop organized Govt. Degree College, Baramulla under UGC's CPE on 04-03-2020.
63. *Ecosystem disservices and plant invasion* in the Refresher Course by the UGC-Human Resource Development Centre, University of Kashmir on 19-12-2019.
64. *Be it horseweed or common reed: invasion sucks indeed* – an invited talk in a special lecture series at Montana Tech, Butte, **USA** on 16-07-2019

65. *Connecting the dots in invasion science for a way forward* in the National seminar on Plant & Fungal Diversity: Status and Challenges and symposium on Ecology, University of Jammu on March 18-19, 2019.
66. *Biological invasions in the context of Disaster Management* in the Refresher Course on 'Disaster Management' organized by the UGC-Human Resource Development Centre, University of Kashmir on 03-02-2019.
67. *Team science is dream science* in the Research Methodology workshop organized by the UGC-Human Resource Development Centre, University of Kashmir on 25-01-2019.
68. Delivered an invited talk on "*Creating quality culture: importance and challenges*" in the Islamic University of Science & Technology (IUST), Awantipora on August 2, 2018.
69. Delivered an invited expert talk on "*Digital learning: promises and challenges for Botany*" in the workshop on Digital Learning in the State University of Performing & Visual Art, Haryana on 23-08-2018.
70. Chaired a session on "*Sustainable Energy Development*" with Prof. Daniel Coleman as co-chair in international conference on "Engaging India and Canada: challenges of sustainable development" from June 8-9, 2018 at India International Centre, New Delhi.
71. Keynote lecture on *Plant invasions: insights from eco-physiological studies* in National Workshop on "**Recent trends in plant ecophysiology**" sponsored by DST-PURSE-II from February 27 to March 7, 2018.
72. *Plant invasions: need for multifaceted approaches and multi-purpose toolkits for better understanding and management* in National Conference on Status of alien invasive species in India jointly organized by the Botanical and Zoological Survey of India, Ministry of Environment, Forests & Climate Change, Govt. of India from December 14-15, 2017.
73. *Impact of changing regulations on academic discourse in higher education* in the Orientation Course organized by the UGC-Human Resource Development Centre, University of Kashmir on 06-06-2017.
74. *Revisiting Research Methodology (I & II)* in the Orientation Course organized by the UGC-Human Resource Development Centre, University of Kashmir on 08-01-2018.
75. *Ecological crisis and challenges for legal researchers* in the Workshop on Research Methodology organized by the Department of Law, University of Kashmir on 10-01-2018.
76. *Benchmarks of quality research* in the Orientation Course organized by the UGC-Human Resource Development Centre, University of Kashmir on 06-06-2017.
77. *Connecting people to nature* on the eve of the World Environment Day observed on 5-6-2017 in the Institute of Engineers, Srinagar as a Special Speaker.
78. *Crowd of plants vs. Crowd of people* in the refresher course in Biosciences organized by the UGC-Human Resource Development Centre, University of Kashmir on 19-3-2017.
79. *Phenotypic trait variation in Phragmites australis in native and non-native regions* in the International conference on "Engaging India and Canada: Perspectives on Sustainability" organized by the Shatri Indo-Canadian Institute, New Delhi from May 11-12, 2017 at India Habitat Centre, New Delhi.

80. *Quality research: assessment and assurances* in a National Workshop on Scholarly Writing organized by the Allama Iqbal Library on 22-23 March, 2017.
81. *Linking science with Citizen Science to make restoration sense* in the Restoration Seminar series at Montana Tech, USA on 22-2-2017.
82. *Getting the concealed out of the closet: joy of creative research* in the orientation course organized by the UGC-Human Resource Development Centre, University of Kashmir on 08-12-2016.
83. *API assessment under 4th amendment to UGC regulations* in the orientation course organized by the UGC-Human Resource Development Centre, University of Kashmir on 08-12-2016.
84. *Grant writing: turning an idea into a project* in the orientation course organized by the UGC-Human Resource Development Centre, University of Kashmir on 15-3-2016.
85. *A random walk on the research street* in the Summer School organized by the UGC-Human Resource Development Centre, University of Kashmir on 13-02-2016.
86. *A random walk in the invaded paradise* in the Institute of Geobotany, Martin Luther University, Halle, Germany on 17-08-2015.
87. *Coordinated Biogeographic Studies: the way forward to invasion biology* in a workshop on Biological Invasions at a Biogeographic Scale at the Faculty of Natural Sciences, University of Pecs, Hungary on 06-08-2015.
88. *'Tragedy of commons and participatory solutions'* in the special Summer School Refresher Course organized by the UGC-Human Resource Development Centre, University of Kashmir on 30-07-2015.
89. *Transition from macro-ecology to molecular ecology*, Refresher Course in Biology, Human Resource Development Centre, University of Kashmir, April 28, 2015.
90. *'A decade of being Young Investigator in India*, 7th Young Investigators Meeting at Gualalrg, from March 27-April 1, 2015.
91. *'INSPIRE: blooming buds of science'* in the DST-sponsored INSPIRE Organizers National Meet at KIIT University, Bhubneswar from May 29-30, 2014.
92. *'Fun of discovering a scientist in you'* in the State Council of Science & Technology sponsored programme at Govt. N.M. Higher Secondary, Bandipore on 03-04-2-14.
93. *'Go back to move forward: revisiting Sheikhul-Alam's ecological wisdom'* in the seminar on Sheikhul-Alam: the icon of Kashmir, jointly organized by the UGC Academic Staff College and Sheikhul-Alam Chair. University of Kashmir on 11-12 March, 2014.
94. Attended as invited guest in the special programme on Doordarshan Kendre Srinagar in the popular show *'Good Morning J&K'* to talk on Dal lake problems and management.
95. *Global challenges and local solutions*: 64th Orientation Course, UGC Academic Staff College, University of Kashmir, Srinagar on 20-02-2014.
96. *Create, track and mind your footprint*: 63rd Orientation Course, UGC Academic Staff College, University of Kashmir, Srinagar on 27-12-2013.
97. *Plant Invasions: Lessons from coordinated distribute experiments*, as a resource person in the workshop on "Understanding Invasives" in the Students Conference on Conservation Science on

September 25, 2013 in the Centre for Ecological Sciences (CES), Indian Institute of Science (IISc), Bangalore.

98. *Insights into plant Invasions from biogeographic studies*, in the Ashoka Trust for Research in Ecology and the Environment (ATREE), Bangalore on September 26, 2013.
99. *Biodiversity Status and Bioresource Potential of Jammu & Kashmir State*, as a resource person in: Brainstorming session on “prioritizing research areas on nano-bio-information technology for development of north-western Himalayan states” from July 12-13, 2013 at Pantnagar University, Pantnagar.
100. *Do good science and have fun too*: 62nd Orientation Course, UGC Academic Staff College, University of Kashmir, Srinagar on 28-6-2013.
101. *Life in extreme environments*: 61st Orientation Course, UGC Academic Staff College, University of Kashmir, Srinagar on 20-3-2013.
102. *Understanding plant invasion biogeography through molecular routes* a plenary lecture in PLANT 2013: National conference on innovations in plant research in 21st century held on 30-31st, January, 2013, in JMJ, College, Tenali, A.P. Chaired also a session in this conference.
103. *Novel applications of extremophiles*: 61st Orientation Course, UGC Academic Staff College, University of Kashmir, Srinagar on 20-3-2013.
104. *Monitoring wetlands in an era of global climate change* - in a special meeting for developing Science Plan for Indian National Network on Long Term Ecological Observatories (LTEO), held at the Centre for Ecological Sciences (CES), Indian Institute of Science (IISc), Bangalore from 28-29 May, 2012.
105. *Cold Arid Desert of Ladakh: a worth exploring novel niche* in 3rd partners' meeting of Cold Arid Network, held in Central Arid Zone Research Institute (CAZRI), Jodhpur, on 13th June, 2012.
106. *Fungal mutualists: culprits or victims of alien plant invasion* an invited lecture delivered in the International Conference on Mycology & Plant Pathology: Biotechnological Approaches, organized by the Centre of Advanced Studies in Botany, Banaras Hindu University (BHU), from February 27-29, 2012.
107. *Horizon Scan India* - meeting jointly organized by the Nature Conservation Foundation (NCF), Mysore, the National Centre for Biological Sciences (NCBS), Bangalore, and the University of Leeds, UK, for prioritization of research areas in India's biodiversity, ecosystems and natural resources, at NCBS from January 11-12, 2012.
108. *Sustainability: reality or myth?* In: Orientation course organized by UGC Academic Staff College, University of Kashmir, on 14-12-2011.
109. *Mycorrhizal symbioses and alien plant invasion* at the Center of Forests and Environmental Genomics, University Laval, Quebec, **Canada** September 8, 2010.
110. *Ecological impacts of invasive species*. In a DBT-sponsored workshop “*Animal Physiology*” Faculty of Veterinary Sciences, Alustang, Shuhama, J&K on 30-03-2011.
111. *Sufism versus environmentalism: Need for an alliance*. In seminar “Sufism and its relevance today” IMPA, Srinagar, India, on 18-5-2006.

112. “*War against nature: causes and consequences*” In: *World Environment Day*, Department of Environmental Science, University of Kashmir, Srinagar, J&K, India, on 5-06-2004.

NATIONAL LEVEL CONSULTATIONS

- Member External Expert Member for the Wetland Authority of Delhi.
- National Policy consultation on Ramsar wetlands (virtual) organized by ATREE, Bangalore via DST sponsored programme on 14-05-2020
- Developing the DPR for the National Mission on Biodiversity and Human Well-being by Ministry of Environment, Forests & Climate Change (MoEF&CC), Govt. of India through National Biodiversity Authority (2019)
- Developing the science plan for the establishment of Long-term Ecological Observatories at national scale in India by MoEF & CC, Govt. of India through CES, IISC, Bangalore (2012)
- Attended 90th Annual Meeting of Indian Academy of Sciences at NISER & IIT Bhubneshwar from November 7-10, 2024.

EXTENSION ACTIVITIES

- Nature India Podcast Biore: *India's most aggressive botanical invaders: how alien species are changing India's landscape*, Episode 42 on March 18, 2025 anchored by Subhra Priyadarshini, doi: <https://doi.org/10.1038/d44151-025-00039-9>
- Live TV show debating extreme climate events and their impact on J&K with Sanam Aijaz on 24x7JK News on Oct 20, 2022 at 6:30PM
- A series of extension lectures to the students of Ashoka University from Jan. 18, 2020.
- Attended as invited guest on popular TV show “*Good Morning J&K*” at Doordarshan Srinagar in 2019.
- Delivered a radio talk on *Wetlands of Kashmir: issues, threats and management* at Radio Kashmir Srinagar FM channel (FM 3.5) on 25-4-2018.
- Delivered a radio talk on *Visual Pollution* at Radio Kashmir Srinagar FM channel (FM 3.5) on 9-5-2018.
- Acted as judge for a debate in the Department of Law, University of Kashmir, Srinagar on 03-10-2018.
- Attended as invited guest on popular TV show “*Good Morning J&K*” at Doordarshan Srinagar in 2014.

EDITORIAL EXPERIENCE

- Editor in Chief – Annual Report of University of Kashmir, for 2015, 2016.
- Editor – Golden Jubilee Issue (Botanical Society Bulletin 2011-2012, University of Kashmir.

- Associate Editor, Botanical Society Bulletin-2009-2010, University of Kashmir.
- Editorial board member - *European Journal of Science and Theology*
- Assistant Editor, 'Department of Botany: A Profile'. University of Kashmir, Srinagar.
- Associate Editor – *Journal of Current Sciences*

ADMINISTRATIVE ASSIGNMENTS

- Director DIQA, University of Kashmir since 01-06-2022 ...
- Nodal Officer for Association of Indian Universities (AIU).
- Coordinator RUSA, SAP University of Kashmir since Nov. 25, 2019.
- Nodal Person, Himalayan Knowledge Network (HKN), GBPIHEED, Govt. of India
- Coordinated the effort that got University the District Green Champion Award 2021-22 from MGNCRE, Ministry of Education, Govt. of India.
- Director, Directorate of Internal Quality Assurance, University of Kashmir since Jan 22–Nov 25, 2019 and steered the University from NAAC grade A to A+ and securing the University a position within top 50 universities of the country under NIRF.
- Chief Coordinator, Internal Quality Assurance Cell, University of Kashmir from March 2016 to Jan 22, 2019.
- Nodal Officer MHRD's All India Survey for Higher Education (AISHE) from 2016-19.
- University representative for Shastri Indo-Canadian Institute Executive Member Council
- Coordinator Centre for Potential of Excellence in Himalayan Biodiversity under UGC's CPEPA programme.
- Team lead for presenting University of Kashmir for ranking by MHRD under NIRF and securing 47th rank in top 50 universities of the country.

PROGRAMMES ORGANIZED/COORDINATED

- Organized three days Science Academies' Lecture Workshop on 'Himalayan mountains and their life' sponsored by the Joint Education Panel, Indian Academy of Sciences at the University of Kashmir from May 8-10, 2024.
- Organized as Convener two day's SERB sponsored workshop on 'Monitoring Phenology in an Era of Climate Change' at the University of Kashmir from March 4-5, 2024.
- Organized as Convener the Youth-20 Consultations on Climate Change & Disaster Risk Reduction: Making Sustainability a Way of Life under the aegis of G-20 Presidency of India on May 10-12, 2023 sponsored by the Ministry of Youth Affairs & Sports, Govt. of India.
- Organized a special session on "Biological invasions in mountain ecosystems: education and research" in the **Annual meeting of American Association for Advancement of Sciences – AAAS-2021** on Feb. 9, 2021 together with Prof. Beverly Hartline, Dr. Robert Pal and Dr Huxian Liao and presented a talk on "Biological Invasions in Himalaya: Lessons from Transcontinental Studies".
- Co-organized one day inception workshop for J&K State Chapter of Himalayan Knowledge Network (HKN) under the NMHS, MoEFCC on 28-09-2021
- Organized stakeholder's engagement workshop on ecological restoration of degraded wetland and native species recovery in Hokersar Ramasar site on 20-02-2021 with managers, community and researchers.
- Co-organized two week Summer School on Himalayan Biodiversity in the context of climate change jointly with ATREE, Bangalore from June 24 to July 6, 2019.

- Organized a workshop on threatened species monitoring at University of Kashmir under the aegis of NMHS project on 16-03-2019.
- Organized 7th Young Investigators Meeting (YIM) 2015 from March 27-31, 2015 at Gulmarg, Kashmir, India.
- Organized as Convener two days National Symposium “Biodiversity, Biology and Bio-prospecting” from April 1-2, 2015 at the University of Kashmir, Srinagar.
- Organized a special interaction session “Meet the leaders of Science” including Nobel laureate with school kids (11th and 12th standard) on April 1, 2015 as Coordinator.
- Organized as coordinator three day Science Academy workshop on “*Himalayan Biodiversity and Bioresources: mapping, utilization and conservation*” jointly sponsored by three Science Academies of India from May 8-10, 2014.
- Organized as coordinator one day inception workshop for the UNDP-sponsored scooping study titled “*Strategy and action plan for strengthening the ecological integrity of the Dal Lake*” undertaken by ATREE, Bangalore in collaboration with University of Kashmir on 08-03-2014.
- Coordinated a special meeting on 14-02-2014 under the chairmanship of Vice-Chancellor KU, Prof. Talat Ahmad, with Prof. Damase Khosa, University Laval, Quebec, Canada to discuss the MOU between KU and University Laval, and follow-up visit of Prof. Talat to Laval to take the discussions further.
- Five day *Innovation in Science Pursuit for Inspired Research* (INSPIRE) programme, sponsored by the Department of Science and Technology (DST), Ministry of Science & Technology, Govt. of India at University of Kashmir from September 7-11, 2013.
- A special meeting on 19-10-2013 under the chairmanship of Vice-Chancellor KU, Prof. Talat Ahmad, with the Director of The *Ashoka Trust for Research in Ecology and the Environment* (ATREE) and a cross section of natural and social scientists from various institutions to form an interdisciplinary team of natural and social scientists to review the proximal and ultimate causes of deterioration of Dal lake in order to evolve a deliverable strategy and action plan for restoration and effective management of Dal lake.
- Organizing Secretary of one day brainstorming session on “Management and sustainable development of dal lake through scientific intervention and stakeholders participation” organized by University of Kashmir in collaboration with the Lakes and Waterways Development Authority (LAWDA) and Indian Phycological Society on 30-11-2013.

MEMBERSHIPS OF ACADEMIC/PROFESSIONAL SOCIETIES

- Member Botanical Society of America
- Founder member for the group - Spotting Alien Invasive Species that aims to map the occurrences of a set of widespread invasive species in India.
- Member India Biodiversity Portal (IBP), an exciting initiative to facilitate participation and enable open access for all citizens in contributing information on Indian biodiversity for the benefit of science and society.
- Mountain Invasion Research Network (MIREN), Switzerland.
- International Society for Ecological Economics (ISEE).
- International Association for Ecology (INTECOL).
- International Union of Environmental Ethics (IUEE).
- International Directory of Mycorrhizologists (IDM).

COURSES TEACHING (at M. Sc. level)

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|-------------------|-------------|------------|
| • Microbiology | Core course | (I Sem.) |
| • Ecology | Core course | (II Sem.) |
| • Applied Ecology | Core course | (III Sem.) |

- Molecular Ecology-I& II Optional course (III& IV Sem.)
- Invasion Biology Optional course (IV Sem.)
- Aquatic Ecosystem Management Elective Course (I Sem.)
- Urban Ecology Elective Course (I Sem.)

RESEARCH SUPERVISION/GUIDANCE

| S. No. | Student Name | Title | Program | Status |
|--------|------------------------------|---|---------|---------|
| 1 | Gowhar A Wani | Comparative trait analysis of some invasive and non-invasive alien macrophytes in the Kashmir Himalayan aquatic habitats | Ph. D | Awarded |
| 2 | Tabssum Habib (NET) | Biogeographical differences in competitive effects of native and non-native neighbours of <i>Conyza canadensis</i> | M. Phil | Awarded |
| 3 | Ayaz Bashir Shah | Clonal trait diversity in relation to invasiveness in aquatic angiosperms of Kashmir Valley | M. Phil | Awarded |
| 4 | Mudasir Ahmad Dar (NET-CSIR) | Ploidy status of alien and endemic flora of Kashmir Himalaya | M. Phil | Awarded |
| 5 | Aashaq Hussain Sheikh | Mycorrhizal Symbiosis in relation to plant invasion along altitudinal gradient in Kashmir Himalaya | M. Phil | Awarded |
| 6 | Nadeem Salam | Ecological Niche Modelling for predicting the distribution of some rare and endemic plant species in Kashmir Himalaya | M. Phil | Awarded |
| 7 | Naiera Bhat NET | Phylogenetic relatedness and invasiveness of <i>Conyza canadensis</i> across different spatial scales | M. Phil | Awarded |
| 8 | Afreen Jan Loolu (NET) | Carbon Sequestration by Macrophytes in Hokersar Wetland(Kashmir) in relation to Carbon Credit Assessment | M. Phil | Awarded |
| 9 | Sanna Shafi | Bacterial flora of Manasbal lake, a freshwater ecosystem of Kashmir Himalaya | M. Phil | Awarded |
| 10 | Shahzad A Pandith (CSIR-NET) | Molecular Cloning, Characterisation and Expression Profiling of Some Strategic Genes of Polyketide Pathway from <i>Rheum emodi</i> Wall. Ex. Meissn | Ph. D | Awarded |
| 11 | Rifat Wani | Phytoremediation of heavy metals by free floating macrophytes | PhD | Awarded |
| 12 | Sanna Shafi | Microbial diversity dynamics in Manasbal lake | Ph. D | Awarded |
| 13 | Uzma Zehra | Role of mycorrhizal symbiosis at different stages of plant invasions | M. Phil | Awarded |
| 14 | Bashir Ahmad Khan | Dispersal strategies of alien invasive plants of Kashmir valley. | Ph. D | Awarded |
| 15 | Shazia Mushtaq (FIP, UGC) | Predicting range expansion of some invasive alien plant species in response to climate change using ecological niche modelling | Ph. D | Awarded |
| 16 | Suzana Bashir | Studies on macrophytes as habitats for avifaunal biodiversity | PhD | Awarded |
| 17 | Asghar Khan (CSIR-NET) | Impact of plant invasion on ecosystem services | PhD | Awarded |

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|----|-------------------------|---|-----|-----------|
| 18 | Irfan A Sofi (CSIR-NET) | Conservation and bioprospection of some threatened species | PhD | Awarded |
| 19 | Samina Wani | Mycorrhizal association and micropropagation of some endemic species in Kashmir Himalaya | PhD | Awarded |
| 20 | Ayaz Bashir Shah | DNA barcoding of alien invasive aquatic plants of Kashmir Himalaya | PhD | Awarded |
| 21 | Faizan Shafee | Phenology and functional traits of plants in relation to climate change | PhD | Underway |
| 22 | Adil A Dar | Role of edaphic factors in plant invasion | PhD | Underway |
| 23 | Nargis Bashir | Molecular ecology of Rheum | PhD | Underway |
| 24 | Syed Efra | Understanding plant-pollinator interactions with reference to phenological shifts under climate change | PhD | Underway |
| 25 | Nasir-ul-Islam | Exploring the role of soil microbiome and other below-ground controls of plant community structure | PhD | Underway |
| 26 | Shazia | Delineating the Kashmir Himalayan lakes based on threat assessments under IUCN framework | PhD | Underway |
| 27 | Showkat Ahmad Gojery | Understanding local adaptations of <i>Capsela bursa-pastoris</i> along elevational gradients in the context of climate change | PhD | Underway |
| 28 | Ishrat Shaheen | Deciphering the top-down controls structuring plant communities in Kashmir Himalayan grasslands | PhD | Submitted |
| 29 | Irfan Shafi | Investigating the competitive interactions of native vs. invasive species with reference to restoration of invaded habitats | PhD | Underway |
| 30 | Saba Yaqoob | Characterization and risk assessment of alien flora of Dachigam National Park | PhD | Underway |
| 31 | Iqra Jan | Plant invasion driven changes in avifaunal communities in Hokersar Ramsar site | PhD | Underway |
| 32 | Suhail Bashir | Value-added products from invasive species | PhD | Underway |
| 33 | Manzoor A Dar | Understanding the impact of plant invasions on feeding ecology of Hangul in Dachigam National park | PhD | Awarded |
| 34 | Uzma Zehra | Biogeographic assessment of <i>Phragmites australis</i> rhizosphere microbiome encompassing native and non-native ranges | PhD | Underway |