

Curriculum Vitae



Dr. Gowher Ahmad Wani

SERB-National Post-Doc Fellow

Division of Biotechnology

SKUAST

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https://www.researchgate.net/profile/Gowher_Wani/publications

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Academic Qualification: (M.Sc; M. Phil; B.ED, Ph D; PDF, GATE)

	Degree	Year	Subject	University/Institution	% of marks
1	12 th	2003	ENG, PHY, CHM, BIO	JKBOSE	65.16
2	B.Sc	2007	ENG, ZOO, BOT, CHM	Kashmir University	57.27
3	M.Sc	2009	Botany (Plant Science)	Bundelkhand University	70.38
4.	M.Phil	2010	Botany (Plant Science)	Bundelkhand University & IGRI	A Grade
5.	P.hD	2014	Botany (Plant Science)	Kashmir University & Laval University, Canada	A Grade

Ph.D thesis title, Guide's Name, Institute/Organization/University, Year of Award.

Thesis title: "Comparative trait analysis of some invasive and non-invasive alien macrophytes in the Kashmir Himalayan aquatic habitats".

"Comparasion of quantitative and molecular genetic variation of native vz. invasive populations of Phragmites australis using SSR markers and DNA sequencing"

Supervisors: [Dr. Manzoor A Shah](#) and [Prof. Zafar A. Reshi](#). (Department of Botany, University of Kashmir) and [Prof. Damase P Khasa](#) (Laval University Canada).

Work experience (in chronological order)

S.No.	Positions held	Name of the Institute	From	To	Pay scale
1.	Research Intern	Center of Forestry & Environmental Genomics, University Laval, Quebec, Canada	11-04-2012	31-12-2012	10,000 CAN Dollars
2.	Lecturer	Govt. Degree College, Ramban	17-06-2014	13-02-2015	18000/pm
3.	Lecturer	Govt. Degree College, Kulgam	14 -02-2015	07-02-2016	18000/pm
4.	Post-Doctoral Research Associate	Department of Botany, University Kashmir	13-02-2016	09-03-2019	36000 + 20% HRA
5.	Post Doctoral Fellow	Center of Forestry & Environmental Genomics, University Laval, Quebec, Canada	23-02-2017	28-10-2017	100000/pm
6.	SERB-National Post-Doc Fellow (NPDF)	Department of Plant Biotechnology, SKUAST-K	09-03-2019	08-03-2021	55,000/pm + 16% HRA
7.	Lecturer	Govt. Degree College, Kokernag	26-07-2021	24-12-2021	28000/pm

Professional Recognition/ Award/ Prize/ Certificate, Fellowship received by the applicant.

S.No.	Name of Award	Awarding Agency	Year
1.	Merit cum research scholarship award at Doctoral level	University of Kashmir	2011
2.	Research Intern Award (Laval University, Canada)	Canadian Bureau of International Education (CBIE)	2012
3.	Research Associate Award (India & Canada)	Department of Biotechnology (DBT), India and IC-IMPACTS Centres of Excellence, Canada	2016
4.	Travel Grant Award (University of British Columbia, Vancouver)	Department of Biotechnology (DBT), India and IC-IMPACTS Centres of Excellence, Canada	2017
5.	Best Presentation Award	Cluster University Srinagar	2017
6.	IUBS young Scientist Travel Grant Award	CSIR-National Botanical Research Institute (CSIR-NBRI), Lucknow, INDIA & PARIS. Ref. No. ISEB/NBRI/ICPEP-6/	2018

7	Travel grant award to attend 3rd ACSTM and 6th ACSE Annual Conference, Dubai	ACSE/ACSTM, Dubai	2019
8	National Post-Doctoral Award (NPDF)	DST-SERB Govt. of India	2019
9	Qualified Graduate Aptitude Test in Engineering (GATE)	IIT Delhi	2020

List of Publications

- Obieze, C.C., **Wani, G.A.**, Shah, M.A., Reshi, Z.A., Comeau, A.M., 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 (IF-7.963)**
- **Wani, G.A.**, Khan, M.A., A., Dar, M.A. et al. (2021). Clonality in invasive alien macrophytes in Kashmir Himalaya: a stage based approach. **Aquatic Sciences. (IF-2.75) (Corresponding author)**
- **Wani, G.A.**, Shah, M.A., Tekeu, H., Reshi, Z.A., Atangana, A.R., Khasa, D.P (2020). Phenotypic Variability and Genetic Diversity of *Phragmites australis* in Quebec and Kashmir Reveal Contrasting Population Structure. **Plants**. 9,1392. <https://doi.org/10.3390/plants9101392> **(IF-3.93) (Corresponding author)**
- **Wani GA**, Shah MA, Reshi ZA, Atangana AR, Khasa DP (2014) cpDNA microsatellite markers for *Lemna minor* (Araceae): phylogeographic implications. **Applications in Plant Sciences** 2(7):14. <http://www.bioone.org/doi/full/10.3732/apps.1300099> **(IF-1.59)**
- Dar, M.A.A., **Wani, G.A.**, Shah, M.A., Tekeu, H., Reshi, Z.A. (2021). Is ploidy status related to growth form? Insights from the alien flora of Kashmir Himalaya. **Acta Physiologiae Plantarum**. 43:164. <https://doi.org/10.1007/s11738-021-03327> **(IF-2.36) (Corresponding author)**
- Husaini, A.M., Jan, K.N., **Wani, G.A.** (2021). Saffron: A potential drug-supplement for severe acute respiratory syndrome coronavirus (COVID) management. 7(5). **Heliyon** 7(1):e07068 <https://doi.org/10.1016/j.heliyon.2021.e07068> **(IF-2.85)**
- **Wani, G.A.**, Khan, M.A., Dar, M.A. et al. (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/s00128-021-03195-7>. **(IF-2.15) (Corresponding author)**
- Khan, M.A., **Wani, G.A.**, Majid, H. et al. (2020). Differential Bioaccumulation of Select Heavy Metals from Wastewater by *Lemna minor*. **Bulletin of Environmental Contamination and Toxicology**. 105, 777–783. <https://doi.org/10.1007/s00128-020-03016-3>. **(IF-2.15) (Corresponding author)**
- **Wani, G.A.**, Reshi, Z.A., Khasa, D.P. et al. (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. <https://doi.org/10.1007/s11738-020-03062-8> (IF-2.36) (Corresponding author)
- Dar, M.A.A., Sheikh, A.H., Wani, G.A. et al. (2020). Dynamics of mycorrhizal mutualism in relation to plant invasion along an altitudinal gradient in Kashmir Himalaya. **The Botanical Review**. 86, 1–38. <https://doi.org/10.1007/s12229-020-09221-3> (IF-3.08) (Corresponding author)
 - Dar, M.A., Wani, G.A., Shah M.A., Reshi Z.A., Al-Qarawi A.A., Abd_Allah E. F. (2020). Stage-specific ploidy level variations in invasive species: insights from Kashmir Himalaya. **FLORA-** 262, 1-5 <https://doi.org/10.1016/j.flora.2019.151525> (IF-2.08) (Corresponding author)
 - Malik S.A., Wani G.A., Sofi I.I (2019). Study of Traditionally used Ethnomedicinal plants in Different Parts of Anantnag District, Kashmir Himalaya. **International Journal of Science and Research** (8) 2046-2052. (Corresponding author)
 - Wani, G.A., Shah, M.A., Reshi, Z.A. et al. (2018). Polyploidy determines the stage of invasion: clues from Kashmir Himalayan aquatic flora. **Acta Physiologiae Plantarum** 40:58.<https://doi.org/10.1007/s11738-018-2629-4>. (IF-2.36) (Corresponding author)
 - Wani G.A, Dar M.A, Mir M.A, Mir M.A (2017). Evaluation of Genetic Diversity in Mustard (*Brassica juncea* L.) using RAPD Analysis. **International Journal of Creative Research Thoughts**. 5(4), 2320-2882 (Corresponding author)
 - Mir M.A, Shafi A, Wani G.A (2017). Investigation of Biochemical Analysis and Antibacterial Properties of *Lavatera Cachemiriana*. **International Journal for Scientific Research & Development**. (03), 2395-1052
 - Wani G.A, Mir B.A, Shah M.A (2013). Evaluation of Diversity in Pea (*Pisum sativum* L.) Genotypes using Agromorphological characters and RAPD analysis (2013). **International journal of current research and reviews**. 05(10), 17-25 (Corresponding author)
 - Wani G.A, Mudasir, Kudesia R, Shika Srivastava M.K (2010) Evaluation of Genetic Diversity in Pea (*Pisum sativum* L.) using RAPD analysis. **Genetic Engineering and Biotechnology journal**. 21503516, (16),1-5. <http://astonjournals.com/gebj> (Corresponding author)

Published Book:

- Wani Gowher A and Shah Manzoor A (2020). Eco-physiological and Genetic Factors Contributing to Invasion Success. **Cambridge Scholars Publishing, UK**. ISBN-13-978-1-5275-5214-2; ISBN-10 1-5275-5214-4, ppno. 1-139. (Corresponding author)

Presentations/Abstracts in Conferences/ Workshops

- Gowher A. Wani (2010). Medicinal value of *Crocus sativus* (Saffron). National Conference on Role of Biodiversity in sustainable Agriculture held on March 4-5, 2010 at Bundelkhand University, Jhansi (UP).

- **Gowher A. Wani** (2013). Morphology, Phylogeography and Genetic variation analysis in *Phragmites australis*: a comparison of native and invasive populations in Canada with invasive populations in Kashmir Himalaya. International Day for Biological Diversity held on May 22, 2013 at Department of Botany, University of Kashmir, Srinagar.
- **Gowher A. Wani** (2013). “Innovation in Science Pursuit for Inspired Research” sponsored by Department of Science & Technology (DST), Ministry of Science & Technology, Govt. of India, Organized by University of Kashmir, Srinagar from September 7-11-2013
- **Gowher A. Wani** (2013). “World Environment Week” held on 5-11 June, 2013 for cleanliness/ Awareness Drive around Manasbal Lake organized by Department of Environmental Science and Centre of Research for Development in collaboration with National Science Scheme, University of Kashmir, Srinagar.
- **Gowher A. Wani** (2014). “Himalayan Biodiversity and Bioresources: Mapping, Utilization and Conservation”. Science Academies’ Lecture Workshop. Organized by the Department of Botany, University of Kashmir, Srinagar held on May 8-10, 2014 and jointly sponsored by Indian Academy of Sciences (Bangalore), Indian National Science Academy (New Delhi) and National Academy of Sciences (Allahabad).
- **Gowher A. Wani** (2014). International Conference on Cellular and Molecular Mechanisms of Disease Process held on 13 to 16 April, 2014. Sponsored by Department of Biotechnology University of Kashmir.
- **Gowher A. Wani** (2015). National symposium on “Biodiversity, Biology and Bioprospecting” held on April 1-2, 2015 organized by the Department of Botany, University of Kashmir and sponsored by SERB, Department of Science and Technology, Government of India, New Delhi.
- **Gowher A Wani** IC-IMPACTS (2017) Summer Institute on “Sustainable Communities In Low-Resource Settings” held on June 3 - 8, 2017 organized by Canada India Research Centre of Excellence (IC-IMPACTS) at University of British Columbia, Vancouver.
- **Gowher A Wani** (2017). Annual Research Conference on “Discoveries for the global economy” June-9-10, 2017 organized by Canada India Research Centre of Excellence (IC-IMPACTS) at University of British Columbia, Vancouver.
- **Gowher A Wani** (2017). Graduate student seminar on “Tableau software” June 11, 2017 organized by Canada India Research Centre of Excellence (IC-IMPACTS) at University of British Columbia, Vancouver.
- **Gowher A Wani** (2017). Student-Led Conference on “Sustainable solid waste management” – commercializing your research in small steps- June 29, 2017 organized by Canada India Research Centre of Excellence (IC-IMPACTS) at McGill University, Montreal.
- **Gowher A Wani** (2017). Author Workshop on “Scholarly Writing & Intellectual Ethics” Nov. 14, 2017 organized by Central University of Kashmir & Elsevier.
- **Gowher A Wani** (2017). Comparative Metagenomics of Toxic Freshwater Bacterial Communities on two Continents affected by Anthropogenic Disturbances. 3-Day National Workshop on Disaster Resilience of Kashmir in the Face of Climate Change held on 13 to 15 November, 2017. Organised by Department of Environmental Sciences, Cluster University Srinagar (J&K).
- **Gowher A Wani** (2017). Comparative metagenomics of selected Canadian & Indian Freshwater Lakes Affected by Agricultural and Mining activities. National Seminar on Himalayan Biodiversity Characterization and Bioprospection for Sustainable

Utilization held on 18 to 19 September, 2017. Organised by Centre for Kashmir Himalayan Biodiversity, University of Kashmir, Srinagar, J&K, India.

- **GowherAWani (2017)**. Linkage between Polyploidy and Stage based Invasion Clues through Aquatic Flora of Kashmir Himalaya. 4th International Conference on Recent Trends and Advancements in Engineering and Technology (ICRTAET) held on 03-04 November 2017. Sponsored by SMVDU-TBIC & TEQIP-III.
- **GowherAWani (2017)**. Sixth International Conference on Plants & Environmental Pollution held on 27-30, 2018. Organised by International Society of Environmental Botanists (ISEB) & CSIR-National Botanical Research Institute (CSIR-NBRI), Lucknow.

Research Skills and Expertise.

Molecular Biology/ Physiology

- DNA Isolation and Purification from environmental samples
- Polymerase chain reaction (PCR)
- Development of cpDNA SSR markers
- Microsatellite marker analysis (SSR)
- Restriction fragment length polymorphism analysis (RFLP)
- Random Amplified Length Polymorphism analysis (RAPD)
- Metagenomics of Water microbes using high- throughput DNA sequencing
- Phylogeography and Population genetic analysis
- Functional trait analysis
- Phytoremediation potential of *Lemna minor* for heavy metals
- Gel Electrophoresis (PAGE)
- DNA Sequencing
- Genotyping
- Bioinformatics

Bioinformatics/Computer/Statistics:

- *Application software*: FOC, DOS, MS- Windows, MS-office (Power point, MS-excel, MS-word) Internet & Web Designing, Visual Basic etc.
- *Bioinformatics*: NCBI, Pub med searching, BLAST. Sequence alignment, Primer design.
- *Statistics*: Bray cluster analysis, PCA, ANOVA Biodiversity Pro 5.7 version PAST software and SPSS version 12 , BioEdit (Ibis Biosciences, Carlsbad, CA, USA) sequence Alignment Editor using an ABI PRISM 3130XL Analyzer (Applied Biosystems, Carlsbad, CA, USA), Peak Scanner v1.0 software (Applied Biosystems) Gene Mapper V4.0 (Applied Biosystems).