

# Curriculum Vitae | 2024

**Dr. Gowhar Hamid Dar**

(PhD., M. Phil., M. Sc., NET; PGDHE (*Pursuing*))



Assistant Professor & Head Department of Environmental Science  
Government Degree College Kulgam  
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Research Gate: [https://www.researchgate.net/profile/Gowhar\\_Hamid\\_Dar](https://www.researchgate.net/profile/Gowhar_Hamid_Dar)

Google Scholar: <https://scholar.google.co.in/citations?user=eO0BVUAAAAJ&hl=en>

Total Cumulative Impact Factor: 34.547

h-index: 17; i-index: 22 & Citations > 900

## Summary

Dr. Dar is currently working as an Assistant Professor (Environmental Science) at Sri Pratap College, Cluster University Srinagar, Higher Education Department, Govt. of J&K. Previously, I finished my Ph.D programme entitled “Profiling and effect of pathogenic bacteria in fishes of Jammu and Kashmir State and correlation of disease incidence to the trophic status of water bodies” from the Department of Environmental Science University of Kashmir, India and M. Phil in Environmental Science on “Isolation, Identification and characterization of some *Penicillium* isolates for alpha amylase activity” from the same department. I have therefore specialization in Environmental Microbiology (Fish Microbiology, Fish Pathology, Industrial Microbiology, Taxonomy and Limnology). Moreover, I also worked in a national project intended towards the assessment of “Bacterial and Protozoan diseases in Fish fauna of J&K State triggered by Pollution and Climate change related activities”. The project was sponsored by SERB-Department of Science and Technology, Government of India. I have been working on the Isolation, Identification and Characterization of microbes, their pathogenic behaviour and impact of pollution on development of diseases in fish fauna for the last several years so as to understand their behavioural aspects and to evaluate their industrial, economic aspects and their impact on our life. I have also published many research articles (including papers, books, and book chapters) in reputed, referred international and national journals and have more than 50 papers (h-index 17; i-index 22; total citation >900) in international and national journals of repute (Science of Total Environment Impact Factor=10.753 & Chemosphere Impact

**Factor= 8.943**) and a number of books with international publishers (*Springer, Elsevier, CRC Press Taylor and Francis, Apple Academic Press, John Wiley, IGI Global*) to my credit. Further I am actively involved in the teaching of Postgraduate (M. Sc.) students of Environmental Science at PG Department of Department of Environmental Science, Sri Pratap College, Cluster University Srinagar and in the teaching of Undergraduate courses in Environment and Water Management at SP College of Cluster University Srinagar. Moreover, I am supervising a number of students for the completion of PhD and master's degrees. I have received many awards and appreciations for my services towards science and development. **Further, I am Principal Investigator and Co-Principal for different research projects funded by JKST&IC, Govt. of J&K & SERB DST, Govt. of India for funding.** Besides I also act as member Board of Studies (BOS) and Board of Research Studies (BORS), Cluster University Srinagar. Moreover, I also act as a member of various research and academic committees. Currently, I am also the Coordinator Internal Quality Assurance Cell (IQAC) at Government Degree College Kulgam. Previously, I was also worked as Nodal officer for interdisciplinary research Centre/HUB for Biological Science in Sri Pratap College, Cluster University Srinagar.

**Designation:** Assistant Professor (Environmental Science) (Pay band 15600-39100 with AGP 6000)

**Department:** Higher Education

**Institute:** Government of Jammu and Kashmir

**Address:** Department of Environmental Science, Sri Pratap College, Cluster University Srinagar, M.A Road Srinagar-190001, Jammu and Kashmir, India.

**Date of Birth:** 05.08.1985

**Gender:** Male

**Academic Qualification:** PhD (Environmental sciences), M. Phil (Environmental sciences), M. Sc. (Environmental sciences), NET and JRF

**Specialization:** Environmental Sciences, Soil ecology, Environmental Microbiology, Environmental Biotechnology, Microbial Ecology, Fish Microbiology, Fermentation

**Experience:** Research Experience (+ 11 Years); Project with DST (+6 Years); Teaching Experience (PG & UG) (+7 Years)

**Teaching Experience (PG &UG):** Feb 2017-till date

**Number of Research publications:** 70

**M. Sc. Dissertation titled:** Ecological Study of Yousmarg Forest: Bacterial Community of Soils

**Title of M. Phil Dissertation (2012-2013):** Isolation, Identification, and characterization of some *Penicillium* isolates for alpha amylase activity.

**Supervisor:** Prof. Azra N. Kamili

**Co-supervisor:** Dr. Ruqeya Nazir

**Title of PhD (2013-2016):** Profiling and effect of pathogenic bacteria in fishes of Jammu and Kashmir State and correlation of disease incidence to the trophic status of water bodies

**Supervisor:** Prof. Azra N. Kamili

**Co-supervisor:** Prof. M.Z Chishti (Professor Emeritus)

**Pursuing Post Graduation Diploma in Higher Education (PGDHE) through IGNOU.**

### **Research Projects Ongoing/Sanctioned/Submitted**

- ✓ Project entitled “Evaluating the mechanism and devising possible control measures of disease incidences in fish fauna of Trans- Himalayan environs for enhancing the quality and productivity” has been sanctioned by JKSTIC, Department of Science and Technology (Role as Principal Investigator)
- ✓ Project entitled “Development of Phytoproteins in aquatic weeds under stressful environs as tool for phytoremediation and Bio fertilization” has been sanctioned by JKSTIC, Department of Science and Technology (Role as CO-PI)
- ✓ Project entitled “Nuisance aquatic plants as a sustainable tool for nutrient removal and biofertilization” is ongoing with SERB DST, Govt. of INDIA (Cost=38.78L) (Role as Co-PI)

## List of Publications

### A. Research Articles

1. Akhter, R and Dar GH (2022) DYNAMICS OF ZOOPLANKTON DIVERSITY IN DAL LAKE OF KASHMIR HIMALAYA: A BRIEF REVIEW, Sustainability, Agri, Food and Environmental Research (ISSN: 0719-3726)
2. Bhat R A, Singh DV, Qadri H, Dar GH, Dervash MA, Bhat SA, Unal BT, Ozturk M, Hakeem KR, Yousaf B (2021) Vulnerability of municipal solid waste: An emerging threat to aquatic ecosystems. Chemosphere, 287 (2022) 132223 <https://doi.org/10.1016/j.chemosphere.2021.132223> (IF: 8.943) Elsevier
3. Qadri H, Uqab B, Javeed O, Dar GH, Bhat R A (2021) *Ceratophyllum demersum*- An accretion biotool for heavy metal remediation. Science of the total environment, 806 (2022) 150548 <https://doi.org/10.1016/j.scitotenv.2021.150548> (IF: 10.753) Elsevier
4. Dar GH, Kamili AN, Nazir R, Bandh SA, Jan TR, Chishti MZ. Enhanced production of  $\alpha$ -amylase by *Penicillium chrysogenum* in liquid culture by modifying the process parameters, *Microbial Pathogenesis* (2015), doi: 10.1016/j.micpath.2015.07.016. (IF: 3.848). Elsevier
5. Dar GH, Kamili AN, Dar SA, Chishti MZ, Ahmad F. Detection and characterization of potentially pathogenic *Aeromonas sobria* isolated from fish *Hypophthalmichthys molitrix* (Cypriniformes: Cyprinidae), *Microbial Pathogenesis* (2015), doi: 10.1016/j.micpath.2015.10.017. (IF: 3.848). Elsevier
6. Dar S A, Kaur H, Chishti M.Z., Ahmad F, Tak I R and Dar, G.H. First record of protozoan parasites in cyprinid fish, *Schizothorax niger* Heckel, 1838 from Dal Lake in Kashmir Himalayas with study on their pathogenesis. *Microbial Pathogenesis* (2016), doi: 10.1016/j.micpath.2016.01.015. (Impact factor: 3.848) Elsevier
7. Mehmood MA, Qadri H, Bhat RA, Rashid A, Ganie SA, Dar GH and Shafiq-ur-Rehman. Heavy metal contamination in two commercial fish species of a trans-Himalayan freshwater ecosystem. Environmental Monitoring and

- Assessment, 191:104 <https://doi.org/10.1007/s10661-019-7245-2>, 2019 (IF=3.307)
8. Tantry, T. A., Nazir, R., Chishti, M. Z., Ahmad, F., Dar, G. H. and Dar J. S. A report on the incidence of *Trichodina heterodontata* from fishes of Jammu, J&K India. *J Parasitic Diseases*. DOI 10.1007/s12639-014-0538-z (*Springer*)
  9. Dar, G.H., Kamili, AzraN., Nazir, R., Bandh, S. A., and Bhat, R. A. A preliminary study of colony forming units of bacteria from the soils of Yusmarg forest, Kashmir valley, India. *International Journal of Current Research*, 4 (12): 467-472, December 2012 (ISSN: 0975-833X) (SJIF: 7.086).
  10. Dar, G. H., Bandh, S.A. and Kamili, A. N. Bacteriological Analysis Of Soil From Yusmarg Health Resort Of Kashmir Valley. *International Journal of Current Research*. 3 (10), 53-56, 2011 (ISSN: 0975-833X) (SJIF: 7.086).
  11. Bhat, R. A., Dar, G.H., Jehangir, A., Bhat, B.M. and Yousuf, A.R. Municipal Solid Waste Generation and Present Scenario of Waste Management during Yatra Season in Pahalgam: A Tourist Resort of Kashmir Valley. *International Journal of Current Research*, 4(10):004-009.2012. (ISSN:0975-833X) (SJIF: 7.086).
  12. Dar, G. H., Bandh S. A., Kamili, A.N., Nazir, R. and Bhat, R. A. Comparative Analysis of Different Types of Bacterial Colonies from the Soils of Yusmarg Forest, Kashmir valley India. *Ecologia Balkanica*, 5(1): 31-35, 2013
  13. Malik, T.A, Kamili, A. N., Chishti, M. Z., Johri, R. K., Tanveer, S., Bhat, S. A., Ahad, S. and Dar, G. H. Medicinal plants as potential bioresource of anticoccidial drugs. *International Journal of Current Research*, 5(8): 2080-2084. 2013. SJIF: 7.086
  14. Dar, G.H., Kamili, A.N., Nazir, R., Bandh, S.A. and Malik, T.A. Biotechnological production of  $\alpha$ -amylases for industrial purposes: Do fungi have potential to produce  $\alpha$ -amylases? *International Journal for Biotechnology and Molecular Biology Research*, 5(4): 35-40. 2014
  15. Tak, Irfan-ur-Rauf., Dar S. A., Chishti, M. Z., Kaur, H and Dar G. H. Parasites of some fishes (*Labeo rohita* and *Schizothorax niger*) of Jammu and Kashmir in India. *International Journal of Fisheries and Aquaculture*, 6(9): 104-107.2014

16. Fayaz, F., Kamili, A.N., Hafiz, B. Z., Khan, I and Dar, G. H. Abundance and diversity of major cultivable fungal flora of River Jhelum in Kashmir Himalaya. *Journal of Ecology and the Natural Environment*, 7(1):1-6. 2015
17. Dar, G.H., Kamili, AzraN., Nazir, R., and Bandh, S. A. Morphological characteristics and Taxonomic position of  $\alpha$ -amylase producing *Penicillium* species isolated from soil. *Journal of Research and Development*, 14:24. 2015
18. Dar GH, Kamili AN, Chishti MZ, Dar SA, Tantry TA and Ahmad F. Characterization of *Aeromonas sobria* isolated from Fish Rohu (*Labeo rohita*) Collected from Polluted Pond. *J Bacteriol Parasitol* 2016, 7:3, <http://dx.doi.org/10.4172/2155-9597.1000273>
19. Jan S, Khan I, Dar GH, Kamili AN, Tak, Irfan-ur-Rauf. Ecological and microbiological characteristics of the Jhelum River in Kashmir Himalaya, *Journal of Bacteriology & Parasitology*, 7: 277. doi:10.4172/2155-9597.1000277 2015 (IF:0.71)
20. Bhat, R. A., Rehman, S., Mehmood, M. A., Dervash, M. A., Mushtaq, A., Bhat, J. I. A. and Dar, G. H. Current status of nutrient load in Dal Lake of Kashmir Himalaya. *Journal of Pharmacognosy and Phytochemistry* 6(6): 165-169. (2017)
21. Mehmood, M. A., Ganie, S. A., Bhat, R. A., and Rashid, A. Shafiq-ur-Rehman., Dar, G. H and Gulzar, A. Assessment of Some Trace Elements and Heavy Metals in river Jhelum of Kashmir Valley. *International Journal of Theoretical & Applied Sciences, Special Issue on Environmental-Contaminants-and-Management Effects* 9 (2): 27-31. 2018.
22. Bhat, RA, Dar SA, Dar, DA and Dar, GH. Municipal Solid Waste generation and current scenario of its management in India, *International Journal of Advance Research in science and Engineering*, 7(2):419-431., 2018
23. Rashid, A, Mehmood, M.A, Qadri, H, Bhat, RA and Dar, G.H. Comparative water quality assessment of a tropical and temperate lake of India, *Journal of Pharmacognosy and Phytochemistry*, 7(4): 2246-2249
24. Ganie, S. A., Reddy, M. V., Mehmood, M. A., Qadri, H., Bhat, R. A., Rashid, A., Dar, G. H and Gulzar, A. Assessment of essential and trace elements in soil profiles of paddy fields of southern district of Kashmir Himalaya.

### **Books Published**

1. **Fresh water pollution dynamics and remediation**, Springer Nature Singapore, ISBN No: 978-981-13-8277-2
2. **Innovative Waste Management Technologies for sustainable development**, IGI Global, ISBN No: 9781799800316
3. **Pesticide contamination in Freshwater and soil Environs: Impacts, Threats and sustainable Remediation**, Apple Academic Press (CRC Press, A Taylor and Francis Group) ISBN No: 9781771889537
4. **Freshwater Pollution and Aquatic Ecosystems: Environmental Impact and Sustainable Management**, Apple Academic Press (CRC Press, A Taylor and Francis Group) ISBN No: 9781771889582
5. **Microbiota and Biofertilizers: a sustainable continuum for plant and soil health**", Springer Nature Switzerland AG, ISBN No: 978-3-030-48770-6
6. **Microbiota and Biofertilizers, Vol 2- Ecofriendly Tools for Reclamation of Degraded Soil Environs**" to be published by Springer Nature Switzerland AG.
7. **Bacterial Fish Diseases**, Elsevier, Academic Press, ISBN No: 9780323856249
8. **Microbial Consortium and Biotransformation for Pollution Decontamination**, Elsevier, Academic Press, ISBN No: 9780323919265
9. **Nano technology for Environmental Pollution Decontamination: Tools, Methods, and Approaches for Detection and Remediation**, Apple Academic Press (CRC Press-Taylor and Francis Group) ISBN No: 9781774910405
10. **Phytoremediation: Biotechnological strategies for Promoting Invigorating Environs**, Elsevier, Academic Press, ISBN No: 9780323898744
11. **Phytohormones and Stress Responsive Secondary Metabolites**, Elsevier, Academic Press, ISBN No: 9780323918831
12. **Microbial Bioremediation-Sustainable Management of Environmental Contamination**, Springer Nature, ISBN No: 978-3-031-18017-0
13. **Aquatic Environmental Bioengineering: Monitoring and Remediation of Contamination**, John Wiley and Sons Ltd. ISBN No: 9781119760948

14. **Ecology of Bacterial Communities in soils**, Lamebert Academic Publishing house, SAAR BRUCKEN, GERMANY, ISBN NO:978-3-330-07482-8
15. **Studies on water Quality of River Newaj, Madhya Pradesh, India**, Lamebert Academic Publishing house, SAAR BRUCKEN, GERMANY, ISBN NO:978-613-9-85458-5
16. **Solid waste generation rates and its management in forest ecosystem**, Lamebert Academic Publishing house, SAAR BRUCKEN, GERMANY, ISBN NO:978-613-9-82970-5
17. **Nanotechnology for Environmental Pollution Decontamination: Tools, Methods and Approaches for Detection and Remediation**” with Apple Academic Press, CRC press an imprint of Taylor and Francis group, bearing ISBN No:9781774910405
18. **Microbiomes for the management of Agricultural Sustainability**, *Springer Nature* ISBN No: **978-3-031-32967-8**
19. **Aquatic Contamination: Tolerance and Bioremediation**, John Wiley and Sons Ltd. ISBN No: 9781119989288
20. **New Horizons in Phytoremediation and Phycoremediation: Genomics Advancement for Ecosystem Restoration**, *Springer Nature (Under Process)*
21. **Nanobiostimulants-Emerging strategies for agricultural sustainability**, *Springer Nature (Under Process)*
22. **Nano-phytoremediation and Environmental Pollution: Strategies and Mechanisms**, CRC press-Taylor and Francis Group (*Under Process*)
23. **Biochar production Engineering: Innovative Technology for Environmental Decontamination**, *Springer Nature (Under Process)*
24. **Zero Waste Management Technologies**, *Springer Nature (Under Process)*
25. **Laboratory manual for Air, Water, Soil and Biological Analysis**, Cambridge Scholars Publishing. (In Press)

#### **Book Chapters Published**

1. **Dar, G.H**, Bhat, RA, Kamili, AN, Chishti, MZ, Qadri, H, Dar, R and Mehmood, MA. Correlation between Pollution trends of freshwater bodies and bacterial disease of fish fauna. In: *Freshwater Pollution Dynamics and Remediation*. Springer Nature-Singapore (2018).



2. Singh, DV, Bhat, RA, Dervash, MA, Qadri, H, Mehmood, MA, Dar, GH, Hameed, M and Rashid, N. Wonders of Nanotechnology for Remediation of Polluted Aquatic Environs. In: Freshwater Pollution Dynamics and Remediation. Springer Nature-Singapore (2018).
3. Mushtaq, N. Bhat, R. A., Dervash, M.A., Qadri, H and Dar G.H. Biopesticides: The Key Component To Remediate Pesticide Contamination in an Ecosystem. In: Environmental contamination and Remediation. Cambridge Scholars Publishing. U. K. : 152-178
4. Bhat, R.A., Dervash, M.A., Qadri, H., Mushtaq. N and Dar, G.H. Macrophytes, The Natural Cleaners Of Toxic Heavy Metal (Thm) Pollution From Aquatic Ecosystems. In: Environmental contamination and Remediation. Cambridge Scholars Publishing. U.K. : 189-209
5. Dervesh, M. A., Bhat, R. A., Rashid. A. Lone., F. A., Dar, G.H and Lone. R. *Rhizobium* as a biofertiliser: an ecofriendly technique for sustainable soil under saline environmental conditions In Saline based Agriculture by Halotolerant microorganisms edited by Kumar, M., Kumar, B and Hassan, E (Springer Nature Singapore 2018)
6. Dar SA, Bhat RA, Dervash MA, Dar ZA, and Dar GH. Azotobacter as Biofertilizer for Sustainable Soil and Plant Health Under Saline Environmental Conditions. In: Microbiota and Biofertilizers: A Sustainable Continuum for Plant and Soil Health. Springer Nature-Switzerland AG (2021)
7. Tak IR, Dar GH, and Bhat R A. Fungi and Their Potential as Biofertilizers. In: Microbiota and Biofertilizers, Vol 2: Eco-friendly tools for Reclamation of Degraded Soil Environs. Springer Nature-Switzerland AG (2021)
8. Tonelli FMP, Bhat RA, Dar GH, Hakeem, KR. 2021. The history of Phytoremediation. In: *Phytoremediation: Biotechnological strategies for promoting invigorating environs*. Elsevier Academic Press Pp: 1-18
9. Bhat, R. A, Mir, M. Y, Dervash, M. A, Dar, G.H. 2022. **Emerging Pollutants Remediation Water Systems: Biomass-Based Technologies Genetic Engineering for Metal Tolerance and Accumulation. In: Aquatic Environmental Bioengineering: Monitoring and Remediation of Contamination. John Wiley & Sons LTD**

10. Bhat, R. A, Mir, M. Y, Dervash, M. A, Dar, G.H. 2022. Transgenic Approaches for Field Testing and Risk Assessment. In: Aquatic Environmental Bioengineering: Monitoring and Remediation of Contamination. John Wiley & Sons LTD
11. Bhat, R. A, Mir, M. Y, Dervash, M. A, Dar, G.H. 2022. Role of RS and GIS in Water Quality Monitoring and Remediation. In: Aquatic Environmental Bioengineering: Monitoring and Remediation of Contamination. John Wiley & Sons LTD
12. Bhat, R. A, Mir, M. Y, Dervash, M. A, Dar, G.H. 2022. Advancement on Bioaugmentation: Strategies for Processing Industry Wastewater. In: Aquatic Environmental Bioengineering: Monitoring and Remediation of Contamination. John Wiley & Sons LTD
13. Bhat, R. A, Mir, M. Y, Dervash, M. A, Dar, G.H. 2022. Photocatalysis in Relation to Water Remediation. In: Aquatic Environmental Bioengineering: Monitoring and Remediation of Contamination. John Wiley & Sons LTD
14. Bhat, R. A, Mir, M. Y, Dervash, M. A, Dar, G.H. 2022. Biochemical Systems: Cathode Advanced Wastewater Treatment. In: Aquatic Environmental Bioengineering: Monitoring and Remediation of Contamination. John Wiley & Sons LTD
15. Bhat, R. A, Mir, M. Y, Dervash, M. A, Dar, G.H. 2022. Nanotechnology: Environmental Sustainable Solutions for Wastewater Treatment. In: Aquatic Environmental Bioengineering: Monitoring and Remediation of Contamination. John Wiley & Sons LTD
16. Bhat, R. A, Mir, M. Y, Dervash, M. A, Dar, G.H. 2022. Biotechnology Intercession in Phytoremediation. In: Aquatic Environmental Bioengineering: Monitoring and Remediation of Contamination. John Wiley & Sons LTD
17. Bhat, R. A, Mir, M. Y, Dervash, M. A, Dar, G.H. 2022. Biofilms in Remediation: Current Trends and Future Perspectives. In: Aquatic Environmental Bioengineering: Monitoring and Remediation of Contamination. John Wiley & Sons LTD
18. Bhat, R. A, Mir, M. Y, Dervash, M. A, Dar, G.H. 2022. Graphene-Based Absorbents for Wastewater Treatment. In: Aquatic Environmental Bioengineering: Monitoring and Remediation of Contamination. John Wiley & Sons LTD
19. Bhat, R. A, Mir, M. Y, Dervash, M. A, Dar, G.H. 2022. Sewage Sludge: Use in Agriculture Practices. In: Aquatic Environmental Bioengineering: Monitoring and Remediation of Contamination. John Wiley & Sons LTD

20. Bhat, R. A, Mir, M. Y, Dervash, M. A, Dar, G.H. 2022. Microbial Fuel Cells for the Treatment of Wastewater. In: Aquatic Environmental Bioengineering: Monitoring and Remediation of Contamination. John Wiley & Sons LTD

21. Bhat, R. A, Mir, M. Y, Dervash, M. A, Dar, G.H. 2022. Water Resources Planning and Management Paradigm Decision-Making. In: Aquatic Environmental Bioengineering: Monitoring and Remediation of Contamination. John Wiley & Sons LTD

#### Papers under communication/ accepted

1. Identification and Characterization of *Aeromonas sobria* isolated from fish Rohu (*Labeo rohita*) showing signs of septicemia (Environment Conservation Journal)

#### List of students Guided/Under Guidance

S. No.	Name of Scholar	Title	Course	Status
1.	Mr. Sayar Yaseen	Evaluation of Fish Health of Endemic Ichthyofauna in some Kashmir Himalaya Streams in Relation to Environmental and Anthropogenic Stress	PhD	Ongoing
2.	Mr. Abdul Rouf Farooqui	Under Process	PhD	Ongoing
3.	Kamran Ahmad Khanday	EVALUATION OF SYMPTOMS ASSOCIATED WITH BACTERIAL ORIGIN DISEASE INCIDENCES IN	PG	Completed

		<b>FISH</b>		
4.	Showkat Rasheed	EVALUATION OF SYMPTOMS ASSOCIATED WITH FUNGAL ORIGIN DISEASE INCIDENCES IN FISH	PG	Completed
5.	Haika Mohi-uddin	Effect of an organophosphate pesticide, Dichlorvos on the behavioural responses of freshwater fish juvenile Cyprinus carpio	PG	Completed
6.	Dawood Ahmad Khan	Insect Diversity in Shankaracharya Hill Station	PG	Completed
7.	Zahid Fazal Kuchey	Avifaunal population in Shankaracharya Hills	PG	Completed
8.	Muneera Akhter	Evaluation of Human Health Status around the Dal Lake.	PG	Completed
9.	Zahida Satar	Evaluation of Zooplankton diversity in Dal Lake using plankton net	PG	Completed
10.	Rayees Ahmad Rather	Living in disturbance-A study of Hokersar and	PG	Completed

		Shallabugh Wetlands of Kashmir		
11.	Rabia Akther	Status of Zooplankton Diversity in Dal Lake of Kashmir Himalaya	PG	Completed
12.	Farzana Ali	Bacterial Diseases in fishes	PG	Completed
13.	Heena Saleem	Evaluating the impact of cement industries on plants	PG	Completed
14.	Snowbar Maqbool	Evaluating the impact of cement industries on Human Health	PG	Completed
15.	Nabahat Ayoub	Carbon Footprint and Nutritional Quality of common foods in Kashmir.	PG	Completed
16.	Muneeb Nazir	Effects of Urbanization on the fish fauna with special reference to <i>Schizothorax</i> species	PG	Completed
17.	Ifflah Ara	Ecological status of Shallabugh wetland in Kashmir Himalaya.	PG	Completed

18.	Nawsheeba Shafi	Nuisance of waste pollution in Srinagar City and solutions thereof.	PG	Completed
19.	Anjum	Impact of Climate change on Apple industry of Kashmir Valley.	PG	Completed
20.	Romia Majeed	Nuisance aquatic plants of wetlands as sustainable alternative for chemical fertilizers.	PG	Completed

### Articles Published in Leading Newspapers

1. Importance of Teaching Environmental Sciences, Greater Kashmir, 07 August, 2015
2. Environment as a Basic Human Right, Greater Kashmir, 18 August, 2015
3. Race for “Smart Cities”, Greater Kashmir, 04 September, 2015
4. Securing water for ecosystems, Rising Kashmir, 16 October, 2015
5. A deceptive Criterion, Greater Kashmir, 19 November, 2015
6. Lessons from a Recruitment Process, Rising Kashmir, 18 January, 2016
7. Lest we suffer, Greater Kashmir, 24, February, 2016
8. Half Lecturers, Grater Kashmir, 29, March, 2016
9. Need for Environmental Education, 22 October, 2017

## E Contents

1. Dose-response relationship-Graded and Quantal response, Hormesis, Assumption and evaluation of dose response relationship.
2. Acute, Short-term and chronic toxicities and its manifestations, Mode of application, administration, exposure and in vitro tests
3. Variation in toxic responses, Toxicity testing methods and LD<sub>50</sub> experiment.
4. History of Microbiology, Discovery of Microorganisms and Phylogenetic trees, rRNA, DNA and proteins as indicators of Phylogeny.

## Conferences Organized as Organizing Secretary

- ✓ Organized Two-day National workshop on remote sensing and GIS for Natural Resource and Environmental Management between 23<sup>rd</sup> to 24<sup>th</sup> March, 2018
- ✓ Organized “World Environment week lectures on Climate Change and Human Health” from 11<sup>th</sup> June 2019 at Sri Pratap College
- ✓ Organized “International Symposium on Phytoremediation” on 31<sup>st</sup> July 2019 at Sri Pratap College
- ✓ Organized Two weeks Faculty Development Programme (FDP) Jan-Feb, 2020 at Sri Pratap College
- ✓ Co-coordinated the program on endocrinological survey camp for girl students in collaboration with SKIMS Soura on 9<sup>th</sup> March, 2020 at Sri Pratap College.
- ✓ Co-coordinated the awareness program on 10<sup>th</sup> March, 2020 at Sri Pratap College.
- ✓ Organized World Environment Week Lecture series from 5<sup>th</sup> June 2021 by Department of Environment and Water Management and PG Department of Environmental Science, Sri Pratap College
- ✓ Organized two weeks online research orientation workshop on “Research Prospectus in the present Era” from 7<sup>th</sup> March, 2022-20<sup>th</sup> March, 2022
- ✓ Co-Organized “World Environment Week” from 5<sup>th</sup> June 2022 by Department of Environment and Water Management and PG Department of Environmental Science, Sri Pratap College on the eve World Environment Day Celebrations.
- ✓ Co-organized international conference on Water Management on 27<sup>th</sup> July 2022.

- ✓ Co-organized Divisional level Quiz Competition in connection with Gandhi Jayanti Celebrations-2022 on 02<sup>nd</sup> October 2022.
- ✓ Conference Board of Secretary for Two Day International Conference on Electronic and Computational Multidisciplinary Advances 9-10 November 2022
- ✓ Organized one day Interaction cum Orientation lecture National Education Policy-2020 On 07<sup>th</sup> August 2023.
- ✓ Organized webinar series on **“Understanding the importance of NAAC accreditation for Colleges with special focus on colleges of UT of J&K and new NAAC guidelines”** from 13<sup>th</sup> January 2024 to 14<sup>th</sup> February 2024.

## **Supervision**

- ✓ Supervising the number of students at PG Department of Environmental Science, SP College, Cluster University Srinagar for completion of various degrees (PhD/M. Sc). The following dissertations have been successfully completed
- ✓ EVALUATION OF SYMPTOMS ASSOCIATED WITH BACTERIAL ORIGIN DISEASE INCIDENCES IN FISH
- ✓ Status of zooplankton diversity in the Dal Lake of Kashmir Himalaya.
- ✓ Living in disturbance: A study of Hokersar and Shallabugh wetlands of Kashmir.
- ✓ Evaluating the impact of cement industries on human health.
- ✓ Effect of an organophosphate pesticide, Dichlorvos on the behavioural responses of freshwater fish juvenile Cyprinus carpio.
- ✓ Avifaunal population in Shankaracharya hill station.
- ✓ Evaluation of zooplankton diversity in Dal Lake.
- ✓ Evaluation of human health status around the Dal Lake.

## **Trainings attended**

- ✓ Attended four weeks 79<sup>th</sup> General Orientation Course at UGC HRDC center University of Kashmir between 25<sup>th</sup> June-25<sup>th</sup> July, 2018
- ✓ Attended two weeks Winter School on “Science of Teaching” organized by Sri Pratap College, (Department of Higher Education) in collaboration with Cluster University Srinagar from 28<sup>th</sup> January to 10<sup>th</sup> February 2020.



- ✓ Attended 1<sup>st</sup> two weeks online refresher in Environmental Science/Education organized by UGC-Human Resource Development Centre, Jamia Millia Islamia, New Delhi held between 07<sup>th</sup> - 21<sup>st</sup>, October 2020.
- ✓ Participated in the online subject refresher course in Environmental Studies (Open to all) from 25<sup>th</sup> October 2021 to 09<sup>th</sup> November 2021 organized by UGC Human Resource Development Centre, Aligarh Muslim University, Aligarh.
- ✓ Attended various online NAAC training programs.

### **Academic/Administrative Credentials (Achievements and Awards)**

- ✓ Coordinator Internal Quality Assurance Cell (IQAC), Government Degree College, Kulgam
- ✓ Coordinator/Convener Admission Sri Pratap College, Srinagar (Session 2023)
- ✓ Appointed as Assistant Coordinator IGNOU for LSC 1209.
- ✓ Nominated as Nodal officer for interdisciplinary research centre/HUB for Biological Science
- ✓ Member Secretary of the Sri Pratap college Environmental Protection Committee.
- ✓ Conducted Environmental audit of the SP College campus for the years 2020 & 2021.
- ✓ Being an IQAC member for the past many years, Compiled and submitted criteria 03 of AQARs and compiled and submitted Criteria 03 of SSR for NAAC Accreditation process.
- ✓ Approved Academic Counsellor for various courses in Environmental Science by IGNOU.
- ✓ Qualified UGC-NATIONAL ELIGIBILITY TEST (NET) in Environmental Sciences.
- ✓ Appointed as JUNIOR RESEARCH FELLOW (JRF) in DST Project.
- ✓ Pursued M.Phil Programme in Environmental Sciences at University of Kashmir with Grade 'A'
- ✓ Pursued PhD Programme in Environmental sciences at University of Kashmir.
- ✓ Pursued master's in environmental science at University of Kashmir with Grade I.
- ✓ Pursued bachelor's in science (Biochemistry, Chemistry, Botany and English) with Grade I.
- ✓ Qualified Bachelor of Education (B. Ed.) with Grade I.

- ✓ **Member INDIAN SCIENCE CONGRESS**
- ✓ **Appointed as Member in Board of Post Graduate studies in Environmental Science.**
- ✓ **Member Board of Post Graduate Studies (Environmental Science) Sri Pratap College, Cluster University Srinagar.**

### **Presentations and Seminars**

- ✓ Presented seminars on Environmental pollution and its remedies.
- ✓ Solid waste Generation and its management,
- ✓ Water chemistry with special reference to Dal Lake.
- ✓ Air pollution, types and impacts of Air pollution in environment and possible solution to overcome the problem
- ✓ Bacterial communities of soils.
- ✓ Bacterial diseases in Fishes of Jammu, Kashmir and Ladakh.
- ✓ Alpha amylase Enzyme activity of fungal species.
- ✓ Carried Research at Degree College Poonch and gave demonstrations to the candidates on dissection of fishes.

### **Computer Proficiency**

- ✓ Pursued one-year **Advanced diploma in computer application (ADCA).**
- ✓ Well versed with Ms Windows 98/xp, Ms Word, Ms Excel and DTP, editing & Printing.
- ✓ Passed typing training course with 30-35 words speed per minute and shorthand course with 75 words per minute.

### **Research & Work Experience**

- ✓ **Having more than 11 years of Experience in the field of Environmental Sciences**
- ✓ **Worked as Junior Research Fellow (JRF) in DST Sponsored Project entitled “Survey, Control and Diagnosis of protozoal, Bacterial and Pollution related diseases of Fishes in Jammu, Kashmir and Ladakh” and has gained a experience of more than 03 years**

- ✓ Pursued PhD programme on the topic entitled: **Profiling and effect of pathogenic bacteria in fishes of Jammu and Kashmir State and correlation of disease incidence to the trophic status of water bodies**
- ✓ Pursued Master of Philosophy (M.phil.) and submitted the thesis on the topic: **Isolation, Identification and characterization of some *Pencillium* isolates for alpha amylase activity.**
- ✓ Submitted Msc dissertation entitled, **“ECOLOGICAL STUDY OF YOUSMARG Forest: BACTERIAL COMMUNITY OF SOILS”** Study area, Yusmarg Forests of District Budgam, Jammu & Kashmir.
- ✓ Worked as Research Assistant of EIA/EMP of Pahalgam Area sponsored by Pahalgam Development Authority (PDA), J&K Government.
- ✓ Working as peer reviewer for various journals.

## Conferences and Seminars

### Regional

- ✓ Participated and delivered a talk in one day National seminar cum workshop on 20<sup>th</sup> March, 2023 at HKM GDC Eidgah, Srinagar.
- ✓ Participated and made Oral Presentation in 9<sup>th</sup> JK Science Congress, 2013 and Regional Science Congress held at University of Kashmir from October 1-3, 2013
- ✓ Attended **“One Week Research Methodology Course for Research Scholars”** organized by UGC-Academic Staff College, University of Kashmir, Srinagar from 17<sup>th</sup> March, 2014 to 22<sup>nd</sup> march, 2014.
- ✓ Participated and made presentation on **“Assessment of Morphological, Clinical and Pathological symptoms caused by fish pathogen *Aeromonas sobria* in Silver carp (*Hypophthalmichthys molitrix*)”** at 11<sup>th</sup> JK Science Congress, 2015, Srinagar

### National

- ✓ National conference on **“Status and conservation of biodiversity in India with special reference to Himalaya”** Organized by Centre of Research for Development, university of Kashmir (4-5 October 2013).
- ✓ Participated in One Day National Seminar on **“Biodiversity and Climate Change: Challenges and Prospects”** organized by Department of Environmental Science Sheikh-ul-Alam Memorial Degree College, Budgam, 26th October 2017.
- ✓ Participated in 2-Day National level seminar cum workshop on **skill development in biotechnology** on November 20-21, 2017 organized by Department of Biotechnology and Bioinformatics, Sri Pratap College, Cluster University Srinagar.
- ✓ Participated and attended 2-days workshop on e-Learning and Smart Classroom technology organized by Department of Higher Education in collaboration with NIELIT J&K, Srinagar, w.e.f 24<sup>th</sup> -25<sup>th</sup> December 2019
- ✓ Participated in Kashmir Expo- Startups for Livelihood, Organized by Ministry of Science and Technology, Govt. of INDIA from 9-11 November 2022.

### International

- ✓ International conference on **“Cellular and Molecular Mechanisms of Diseases”** processes organized by Department of Biotechnology, University of Kashmir (13-16 April, 2014)
- ✓ International Conference on **International Geographical Union (IGU) Conference: Geohazards, Biodiversity, Resource sustainability and mountain response to global change** organized by Department of Geography and regional development, University of Kashmir (4-5<sup>th</sup> June, 2014)
- ✓ 13<sup>th</sup> International congress of Parasitology, Mexico City (10<sup>th</sup> -15<sup>th</sup> August, 2014) (**Abstract accepted**)

- ✓ Participated in the science Communication workshop held on 11 May, 2015 by Welcome trust DBT INDIA ALLIANCE
- ✓ Participated in Symposium on Hazardous wastes organized by PHD Chambers
- ✓ Participated and made presentation on “Bacteriological and Histopathological studies on *Aeromonas hydrophilla* infection of fish *Cirrhionus mrigala* (Hamilton, 1822)” at 2<sup>nd</sup> International Conference on Environment and Ecology hosted by Department of Environmental Sciences, Bharathiar University, Coimbatore Tamil Nadu between 7-9 March, 2016
- ✓ Participated in 15<sup>th</sup> International conference on “Recent trends in Engineering, Applied Science and Management, at Gurukul Institute of Engineering and technology, Rajasthan India on 1<sup>st</sup> April, 2018

### Papers and Abstracts Presented in Conferences

- ✓ Dar, G. H., Kamili, A.N., Nazir, R. and Bandh, S.A. “Isolation, Identification and Characterization of some *Penicillium* Isolates for Alpha amylase Activity” National Conference on “Status and Conservation of Biodiversity in India with special reference to Himalaya” October 4 - 5, 2013
- ✓ Dar, G. H., Kamili A. N., Bandh S. A., Nazir, R., Malik, T. A. and Habib S. “Production and characterisation of alpha amylases from microbial sources- A review. 9<sup>th</sup> JK Science Congress, 2013 and Regional Science Congress held at University of Kashmir from October 1-3, 2013.
- ✓ Dar, G. H., Kamili, A.N., Nazir, R. and Bandh, S.A. Biodiversity of *Penicillium* species from the soils of Kashmir Valley. International Conference on International Geographical Union (IGU) Conference: Geohazards, Biodiversity, Resource sustainability and mountain response to global change organized by Department of Geography and regional development, University of Kashmir (4-5<sup>th</sup> June 2014)

- ✓ Dar, G. H., Chishti, M. Z., Kamili A. N., Ahmad, F., Tantry, T. A. and Dar S. A. Identification and characterization of *Aeromonas sobria* from *Labeo rohita* (IMC) using Vitek-2 system. 13<sup>th</sup> International congress of Parasitology, Mexico City (10<sup>th</sup> -15<sup>th</sup> August, 2014)
- ✓ Dar, G. H., Kamili A. N., Chishti, M. Z., Ahmad, F., Tantry, T. A. And Dar S. A. Report on the Incidence of *Aeromonas sobria* From *Labeo Rohita* (Imc) Using Vitek-2 System. International symposium on “Biodiversity: Status, Utilization and Impact of Challenging Climatic Conditions” October 30-31, 2014, Lucknow
- ✓ Dar, G. H., Kamili A. N., Chishti, M. Z., Dar S. A., Tantry, T. A. and Ahmad, F. Identification and characterization of *Aeromonas sobria* isolated from rohu *labeo rohita* showing signs of septicemia using vitek system. 10<sup>th</sup> JK Science congress 2015. Jammu
- ✓ Gowhar Hamid Dar; Azra N. Kamili; Shoaib Ali Dar; M. Z Chishti; and Fayaz Ahmad. Microbiological, Pathological and Biochemical characteristics of *Aeromonas sobria* isolated from fish *Hypophthalmichthys molitrix* (Cypriniformes: Cyprinidae). National Interdisciplinary Science Conference on Recent Research Trends in Chemical and Environmental Sciences (S.P College). August 18-19<sup>th</sup>, 2015
- ✓ Gowhar H. Dar; Azra N. Kamili; Mohammad Z. Chishti; Shoaib A. Dar and Fayaz Ahmad. Assessment of Morphological, Clinical and Pathological symptoms caused by fish pathogen *Aeromonas sobria* in silver carp (*Hypophthalmichthys molitrix*). 11<sup>th</sup> JK Science Congress, 2015, Srinagar
- ✓ Gowhar H. Dar; Azra N. Kamili; Mohammad Z. Chishti; Shoaib A. Dar and Fayaz Ahmad. Detection and Characterization of Potentially pathogenic *Aeromonas sobria* isolated from fish *Hypophthalmichthys molitrix* (cypriniformes: cyprinidae). 26<sup>th</sup> All India Congress of Zoology & International Symposium on innovations in Animal sciences for food security, health security and livelihood. 29<sup>th</sup> -31<sup>st</sup> October 2015

- ✓ **Gowhar H. Dar; Azra N. Kamili; M. Z. Chishti; Fayaz Ahmad; and Shoaib A. Dar. Bacteriological and Histopathological studies on *Aeromonas hydrophila* infection of Fish *Cirrhinus mrigala* (Hamilton, 1822).** 2<sup>nd</sup>International Conference on Environment and Ecology hosted by Department of Environmental Sciences, Bharathiar University, Coimbatore Tamil Nadu between 7-9 March 2016
- ✓ **Mohammad Z. Chishti, Gowhar H. Dar and Azra N. Kamili. Molecular Profiling of Some Bacterial Pathogens Associated With Fish Fauna Of J&K State.** International Conference on Recent Trends in Agriculture, Veterinary & Life Sciences, 2<sup>nd</sup> - 4<sup>th</sup>Feb, 2017, Goa India.

**Special Contribution to the general development of the Sri Pratap college, Cluster University Srinagar:**

- ✓ **Nominated as Nodal officer for interdisciplinary research centre/HUB for Biological Science**
  - ✓ **Convener, Admission Committee.**
  - ✓ **Member Secretary of the Sri Pratap college Environmental Protection Committee.**
  - ✓ **Conducted Environmental audit of the SP College campus for the years 2020 & 2021.**
  - ✓ **Being an IQAC member for the past many years, Compiled and submitted criteria 03 of AQARs and compiled and submitted Criteria 03 of SSR for NAAC Accreditation process.**
  - ✓ **As a member of different committees of the college mentioned below, helped the institution in smooth functioning of academic and administrative affairs.**
- 1. Member, College Development Committee.**
  - 2. Member, College Sports Board.**
  - 3. Member UGC Affairs Committee.**
  - 4. Member, IQAC.**
  - 5. Member, Research and Development committee.**
  - 6. Member, Eco Club.**
  - 7. Member, Science Purchase**

- ✓ Guided and supervised the students to help them excel not only in academics but in sports, seminars, and Group discussions to develop a self-belief in them.
- ✓ As a member of Eco Club and Discipline committee, guided students, and nonteaching staff in campus management. Interactive sessions were held on regular basis with these groups to sensitize them about the discipline. Students. Students were encouraged to join the Eco club for coordinating various social welfare measures.
- ✓ As a member of admission committee played a significant role in admission process of the college under NEP-2020 and guided, mentored and counselled students to opt for different courses.
- ✓ As a member of Board of UG and PG studies, framed the syllabus for the various semesters of Environmental Science including the semesters under NEP 2020 and suggested some of the significant updated information to be incorporated in the syllabus in light of NEP 2020.

*Dr. Gowhar Hamid Dar*  
Assistant Professor  
(Environmental Science)