

Name: Dr. Madhu

Designation: Associate Professor

Department: Zoology Department

Teaching Experience

Name of the college	University	Designation	Duration
Daulat Ram College	Delhi University	Assistant Professor	Jan14 to still continued
Shivaji College	Delhi University	Assistant Professor	Jul13 to Nov13
Kirori Mal College	Delhi University	Guest lecturer	Jan13 to Mar13
Kirori Mal College	Delhi University	Guest lecturer	Aug12 to Nov12
Miranda House College	Delhi University	Guest lecturer	Aug09 to Apr10

Subjects Taught

Biotechnology, Cell Biology, Molecular Biology, Biochemistry, Human Physiology, Developmental biology, Animal Diversity, Genetics and Genomics, Evolutionary Biology, Genetic and Evolutionary Biology, Cell and Molecular Biology

Academic Qualifications

Course Details	University/ Board	Institution	Year	Percentage
Ph.D.	University of Delhi	Department of Zoology	2013	Awarded
M.Phil	University of Delhi	Department of zoology	2008	74.0%
M.Sc. Zoology	University of Delhi	Department of Zoology	2005	69.8%
B.Sc. Zoology	University of Delhi	Miranda House	2002	69.4%
Central board of Secondary Education (12th)	CBSE	Bokaro Ispat Senior Secondary School 9E	1999	81.2%
Central Board of Secondary Education (10th)	CBSE	Bokaro Ispat Senior Secondary school 9E	1997	77.0%

Additional Academic Qualifications

Qualified Joint CSIR-UGC Junior Research Fellowship (JRF) held in Dec. 2006 under CSIR fellowship Scheme. CSIR-JRF from 2007-2009 CSIR-SRF from 2009-2012

Details of Ph.D.

Title of Thesis
Biodegradation of Endosulfan and its Induced Alteration in Bacterial Protein Profile and Total RNA yield.
Objectives
1. Isolation and identification of Endosulfan degrading bacteria from soil and effects of environmental parameters on Endosulfan biodegradation . 2. Endosulfan degradation in soil and its effects on soil microbial diversity . 3. Endosulfan induced alteration in bacterial protein profile and total RNA yield .

Details of M.Phil.

Title of Dissertation
Biodegradation of α - and β -Endosulfan by <i>Klebsiella</i> sp. M3

Publications

1. Singh M. and Singh D.K. (2013). Biodegradation of Endosulfan in Broth Medium and in Soil Microcosm by *Klebsiella* sp. M3. Bulletin of Environmental Contamination and Toxicology. DOI 10.1007/s00128-013-1168-3. ISSN: 007-4861.

2. Singh M. and Singh D.K. (2013). Endosulfan induced alteration in bacterial protein profile and RNA yield of *Klebsiella* sp. M3, *Achromobacter* sp. M6, and *Rhodococcus* sp. M2. Journal of Hazardous Materials. DOI 10.1016/j.jhazmat.2013.11.061. ISSN: 0304-3894,

3. Chitra Bhasin^{1*}, Padmashree Mudgal^{2*}, Adita Joshi^{4,5*}, Anita Garg Mangla², Madhu¹, Varsha Singh², Sakshi Jain², Kritika Sharma², Kirti Saluja², Yogita Kapoor², Priyanka Kandola¹, Maniki Mathur¹, Nikita Khatri¹, Alisha Arora¹, Simran Motwani², Sakshi Jain², Arushi Taneja², Surbhi Chauhan², Kanika Arora³, Surbhi Pandey³, Ritika Chaudhary³. (2016). Zebrafish Early Stage Developmental Defects as Indicator of Site Specific Water Composition of River Yamuna. DU Journal of Undergraduate Research and Innovation. Volume 2, Issue 1 pp 40-55.

4. Reva Marwah, Dr.Sonika Sharma, Dr.Madhu, Dr.Anju Jain (2024). Sugar, Methotrexate and the Herbal Shield: Unveiling *Tinospora cordifolia*'s Reproductive Safeguard in *Drosophila*. International Journal for Innovative Research in Multidisciplinary Field. Volume 10, issue 9, Page no. 15-23

Chapters in Book

1. Dr. Madhu (2024), Study of Polymerase Chain Reaction, Animal Biotechnology and Immunology, Astral Publisher, Delhi, India, ISBN No.- 978-93-5919-842-2.
2. Madhu¹, Jyoti Taneja¹ and Sonika Sharma^{1*} (2026). Display of Major Endocrine Glands and Reproductive Organ System in Male and Female Rats, Laboratory Manual of Reproductive Biology and Assisted Reproductive Technologies (A Practical Hands-on Guide for Students), Taylor and Francis Gratis.
3. Sonika Sharma¹, Fouzia Siraz², Jyoti Taneja¹, Priya Bhardwaj³, and Madhu^{1*} (2026). Microscopic Examination of Histological Sections Using Illustrations/Permanent Slides/ Photomicrographs of Human/Rats, , Laboratory Manual of Reproductive Biology and Assisted Reproductive Technologies (A Practical Hands-on Guide for Students), Taylor and Francis Gratis.
4. Sonika Sharma and Madhu Singh* (2026). Study of the Developmental Stages and Life Cycle of *Drosophila*. A textbook of Developmental Biology (laboratory Techniques and Experimental approaches, Springer Singapore, ISBN-978-981-95-7268-7.

Conferences/Workshop/symposium Attended

1. International Symposium on Advances of Health Sciences, Deshbandhu College, University of Delhi, February 12, 2024.
2. National Webinar on Is Air Pollution Responsible for Increasing Rate of Lung Cancer? UGC-MMTTC/GAD-MMTTC), SGTB Khalsa College, DU, 2024.
3. Microscopy Workshop 2024, Department of Zoology & University Science Instrumentation Centre, Jan 22, 2024.
4. International Symposium on Frontiers in applied Sciences, Deen Dayal Upadhyaya College, University of Delhi, March 19, 2024.
5. National Conference on “Ashwagandha – A Health Promotor”, Deshbandhu College, DU, supported by National Medicinal Plants Board, 4th -5th March, 2024.
6. Webinar on “DELNET resources and Services”, Online, Organised by DELNET and Daulat Ram College, University of Delhi, July 14, 2023.
7. ICNPHH-2020, Conference Centre, University of Delhi, 27th-29th February, 2020.
8. Workshop for Research Based Pedological Tool for (RBPT) Science Teacher, STAR DBT Project, IQAC-Daulat Ram College, 25th -27th March, 2019.
9. Inspire Science camp, DST, Daulat Ram College, Delhi, India. 17th -21st Dec, 2018.
10. Workshop on “Can we engage the young age!?” Star DBT Project and IQAC, DRC, 28th June-29th June, 2018.
11. Workshop on Zebrafish as an Animal Model System, Daulat Ram College, University of Delhi, Delhi, India. Mar 15th-17th, 2017.
12. International Conference on Green Chemistry-2016. Delhi, India. Nov 17th-18th

13. Workshop on Biotools in Biotechnology, Daulat Ram College, University of Delhi, Delhi, India. Mar 28th-29th, 2016.
14. Workshop on Biotools in Biotechnology, Daulat Ram College, University of Delhi, Delhi, India. Mar 28th-29th, 2016 (Resource Person).
15. International conference on Public Health: Issues, Challenges, opportunities, Prevention, Awareness (Public Health: 2016), Daulat Ram College, University of Delhi, Delhi, India. Jan 15th and 16th, 2016.
16. National Symposium on Environmental Contamination and Public health. Zakir Hussain College, Delhi, India. Aug 15th, 2015.
17. 52nd AMI Annual Conference (2011). Chandigarh, India. Nov 3rd -6th.
18. International Conference on Recent Trends in Developing Bioremediation Strategies for Hexachloro Hexane and other Chlorinated Contaminants (2011). Delhi, India. Feb 9th - 11th.
19. 51st AMI Annual Conference (2010). Ranchi, India. Dec 14th - 17th.
20. 50th AMI Annual Conference (2009). Pune, India. Dec 15th -18th.
21. 49th AMI Annual Conference (2008). Delhi, India, Nov 18th-20th
22. Workshop on Biochemistry of Metabolic Processes, Kirori Mal College, University of Delhi, Delhi, India. Feb 2nd, 2015.

Orientation and FDP

1. NEP 2020 Orientation and Sensitization programme, Malviya Mission Teacher Training Programme and CPDHE, 7th -16th May, 2024.
2. Weeks Interdisciplinary Refresher Course on Basics of Research Methodology, Mahatma Hansraj Malaviya Mission Teacher Training Centre (MH-MMTTC), Hansraj College, University of Delhi, 8th -22nd March, 2024.
3. Online Refresher in Zoology organized by TLC Ramanujan College and PSGR Krishnammmal College for women, 15th-29th December, 2021.
4. E-FDP on Assessment and Evaluation in Higher Education, SGTB Khalsa College, under PMMMNMTC, MHRD, 14th-20th July, 2021.
5. Online FDP organized by Daulat Ram College, University of Delhi in collaboration with Mahatma Hansraj Faculty Development Centre Hansraj College, University of Delhi, 4th -9th October, 2021.
6. E-FDP on Empowering Teaching Learning Process using Google classroom and other ICT tools: A Comprehensive Practical Approach, Organised by Department of Commerce, Daulat Ram College, 21st-23rd July, 2020
7. FDP on “Advanced Pedagogical Techniques” Teaching Learning Centre, Ramanujan College University of Delhi Under the aegis of Ministry of human resource development, Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching, 29th oct-5th Nov, 2020.

8. FDP on Digital Tools For 21st century Teachers, Guru Angad Dev Teaching Learning centre a Centre of MOE under PMMMNMTT, 10th -23rd Dec, 2020.
9. Online FDP on Managing Online Classes and Co-creating MOOCS 3.0 organised by Ramanujan college, University of Delhi, 25th July-10th August, 2020.
10. Orientation Programme (OR-96) organised by CPDHE (UGC-HRDC) from 31st May to 21st June, 2019.
11. Syllabus Upgradation (Human Physiology), Zoology Department, University of Delhi, 27th -30th May, 2022.
12. Syllabus Upgradation (Animal Biotechnology), Zoology Department, University of Delhi, 27th -30th May, 2022.

Research Projects (Major Grants/Research Collaboration)

1. Innovation Project (2015-16)
Title: Zebra Fish as a Biosensor for assessing Yamuna river water quality in Delhi NCT region.
PI: Dr. Chitra Bhasin, Dr. Padmshree Mudgal, Dr. Anita Garg Mangla, Dr. Madhu
2. Navdhara Project (2024-2025):
Title: *Drosophila* as a Model organism and an investigation on the effect of pesticides (Carbendazim, Mancozeb and cypermethrin) on *Drosophila melanogaster*.
PI: Dr. Sonika Sharma, Co-PI: Dr Madhu

Awards and Distinctions

1. Certificate of Appreciation for presenting research work as poster at the 94th foundation day of University of Delhi at Viceregal Lodge on May 01, 2016.
2. Certificate of most significant research outcome for Research Display at the Convocation Ceremony of Delhi University (2016).
3. Certificate of Appreciation for Research Display at the Convocation Ceremony of Delhi University (2016).

Administrative Assignment:

1. Member, IQAC, Daulat Ram College, 2024-still continued.
2. Member, Enabling Cell Unit, Daulat Ram College, 2026-2027.
3. Member, Swachchhata Committee, Daulat Ram College 2024-2025.
4. Member, Placement Cell, Daulat Ram College, 2025-2026.
5. Member, Gender Champion Cell, Daulat Ram College, 2025-2026.

6. Member, Core Committee, Admission, Daulat Ram College, 2023-2024, 2024-2025.
7. Member, Screening Committee, AO appointment, Daulat Ram College, 2024-25
8. Member, COPO Mapping Team, 2023-2024, 2024-2025, 2026-2027.
9. Member, Selection Committee for Ph.D candidates. Approval of progress report, synopsis, etc of Ph.D students. Department of Zoology, University of Delhi, 2022-2024.
10. Member, ERP core Team, Daulat ram College, 2024-2025.
11. Convener, Koshika-Zoological Society, Daulat Ram College, 2023-2024.
12. Teacher-in-charge, Zoology Department, Daulat Ram College 1st May, 2022-30th April, 2023.
13. Member, Time table committee, 2022-2023.
14. Member, Prize Committee, 2022-23
15. Member, Purchase Committee. 2022-2023.
16. GB member as Junior Teacher Representative for the academic session 2021-22.
17. Co-Convener, TPC, Daulat Ram College (2021-22)
18. Member of college Information Bulletin Editorial Team (2021-22).
19. Member of Maintenance and Development Committee (2021-22).
20. Convener, Life Science association and Life Science admission (2020-21).
21. Worked as Sports Board and Gender champion cell member, Daulat Ram College, University of Delhi (Academic Session 2018-2019 and 2019-2020)
22. Worked as a member of library and Discipline committee. (2019-2020)
23. Worked as Core Committee member for College Admission (Academic session 2016-2017)
24. Worked as Student Advisory Board Member, Daulat Ram College (Academic session 2014-2015).
25. Screening of Application forms for the post of assistant Professor of Sanskrit, English and Commerce department.

Additional activities:

1. Organised educational trips for undergraduate students.
2. Organised workshop, SDP and acted as resource person for many workshops and SDP.
3. Worked as organising team member for conferences organised by college for students and teachers.

