Personal Profile

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Address with email	***Present Add:*** Khagragarh, P.O.: Rajbati, Burdwan – 713104 Purba Bardhaman, West Bengal, India ***Permanent Add:*** Khagragarh, P.O.: Rajbati, Burdwan – 713104 Purba Bardhaman, West Bengal, India **Email:** *moniruzzaman@bccollegeasansol.ac.in*, *mmzoo_rs@caluniv.ac.in*
Date of Joining	15th December, 2023
Teaching Experience	▪ **Resource Person** Diamond Harbour Women's University *August 2018- July 2021* ▪ **Guest Lecturer** Bijay Krishna Girls College *June 2019- November 2023* ▪ **Assistant Professor and Head** Department of Zoology Bidhan Chandra College, Asansol *December 2023- Till date*
Topics Taught	• **Ecology, Endocrinology, Biochemistry, Genetics, Molecular Biology** courses for UGC CBCS syllabus for B.Sc. three-year Honours and General degree courses in Zoology. • **Fish Biology, Endocrinology, Ecology, Evolution, Developmental Biology** syllabus in M.Sc. courses. • **Molecular Endocrinology and Ecotoxicology special paper of masters'** students in the Department of Zoology, CU. • **Ecology, Evolution, Molecular biology and Techniques, Fisheries** syllabus for Distance Education Programme under Vidyasagar University.
Research Experience	➢ **Research Associate** *2021-2022*

	➢ **DST-NPDF** University Of Calcutta *2019- 2020* ➢ **DBT-RA** University Of Calcutta *2015- 2018* ➢ **Visva – Bharati University, Sanitinketan, India** Ph.D. student *Title of Thesis: Efficacy of melatonin as a photoperiodic messenger in the regulation of ovarian functions in Indian major carp* *12/2007-08/2014*
Research Area	- Molecular & Cellular Endocrinology - Neurobiology - Ecotoxicology & Stress Physiology -Aquatic Biology and Fisheries
Award and Recognition (if any)	1) CSIR-UGC NET in Life Sciences, December, 2007 2) DST, India Project JRF, 2007 3) Graduate Aptitude Testing Engineering (GATE) 2007, All India Rank 593 4) CSIR Senior Research Fellowship, 2010 5) Travel Grant Fellowship from DBT 2014 6) Hiralal Majumder Memorial Award from University of Calcutta for best presentation, 2016 7) Travel Grant Fellowship from DST 2017 8) Travel Fellowship from APN (Asia Pacific Network) 2017
Membership	o Life Member for Society for Reproductive Biology and Comparative Endocrinology o Zoological Society of India
Other Activity	▪ **Reviewer of Reputed International Journals: 1)** Science of the Total Environment, *Elsevier;* 2) Energy, Ecology and Environment, *Springer*; **3)** Biological Rhythm Research, *Taylor & Francis;* 4) Proceedings of Zoological Society of India, Springer-India; 5) Aquaculture, *Elsevier*; 6) Environmental Science and Pollution Research, *Springer*. ▪ External and internal **examiner** of M.Sc. Course Practical Examination under Diamond Harbour Women's University

	▪ **Examiner** of answer scripts of M.Sc. Course Practical Examination under Diamond Harbour Women's University ▪ Teacher escort and **supervisor of excursion and field work** under Diamond Harbour Women's University ▪ Work as a **research advisor & research co-ordinator** in Hiralal Majumdar Memorial College, University of Calcutta.
List of Publications	1. **Moniruzzaman, M.**, Kumar, S., Mukherjee, M., & Chakraborty, S. B. (2023). Delineating involvement of MAPK/NF-κB pathway during mitigation of permethrin-induced oxidative damage in fish gills by melatonin. *Environmental Toxicology and Pharmacology*, *104*, 104312. 2. Das, K., Basak, M., Mahata, T., Biswas, S., Mukherjee, S., Kumar, P., **Moniruzzaman, M**., Stewart, A. and Maity, B., 2023. Cardiac RGS7 and RGS11 drive TGFβ1-dependent liver damage following chemotherapy exposure. *The FASEB Journal*, *37*(8), p.e23064. 3. Moniruzzaman, M., Datta, U., Saha, N.C., Bhowmick, A.R. and Mukherjee, J. (2023). Abiotic factors and heavy metals defining eco-physiological niche in fish. Science of The Total Environment. 874:162328. ISSN: 0048-9697. **IF: 10.754** **4.** Das, K., Basak, M., Mahata, T., Kumar, M., Kumar, D., Biswas, S., Chatterjee, S., **Moniruzzaman, M**., Saha, N.C., Mondal, K., Kumar, P. (2022). RGS11-CaMKII complex mediated redox control attenuates chemotherapy-induced cardiac fibrosis. Redox biology. 57:102487. ISSN: 2213-2317. **IF: 10.787** 5. **Moniruzzaman, M.**, Maiti, A.K., Chakraborty, S.B., Saha, I., Saha, N.C. (2022). Melatonin ameliorates lipopolysaccharide induced brain inflammation through modulation of oxidative status and diminution of cytokine rush in Danio rerio. Environmental Toxicology and Pharmacology. 96:103983. ISSN: 1382-6689. **IF: 5.785** 6. **Moniruzzaman, M.**, Mukherjee, M., Kumar, S., Chakraborty, S.B. (2022). Effects of salinity stress on antioxidant status and inflammatory responses in females of a "Near Threatened" economically important fish species Notopterus chitala: a mechanistic approach. Environmental Science and Pollution Research. 1:1-2. ISSN- 09441344. **IF- 5.190** 7. Sadhukhan, S., **Moniruzzaman, M**.*, Maity, S., Ghosh, S., Pattanayak, A.K., Chakraborty, S.B., Maity, B. & Das, M. (2022). Organometallic Folate Gold Nanoparticles Ameliorate Lipopolysaccharide-Induced Oxidative Damage and Inflammation in Zebrafish Brain. *Acs Omega*. 7, 9917-9928. ISSN: 2470-1343. **IF – 4.132 (*Equal Contribution and joint**

	first author) 8. Mukherjee, M., **Moniruzzaman, M**.*, Ghosal, I., Pegu, T., Das, D.N. & Chakraborty, S.B. (2022). Evaluating the role of dietary plant extracts to allow adaptation to thermal stress in a cold stream ornamental fish, Botia rostrata (Günther, 1868). 105, 103224. ISSN: 0306-4565. **IF – 3.189 (*Equal Contribution and joint first author)** 9. Kumar, S., **Moniruzzaman, M.***, Chakraborty, A., Sarbajna, A., & Chakraborty, S. B. (2021). Crosstalk between heat shock proteins, NRF2, NF-κB and different endogenous antioxidants during lead-induced hepatotoxicity in Puntius ticto. *Aquatic Toxicology*, 105771. ISSN: 0166-445X. **IF -5.202 (*Equal Contribution and joint first author)** 10. **Moniruzzaman, M.,** Bhowmick, A. R., Karan, S., & Mukherjee, J. (2021). Spatial heterogeneity within habitat indicates the community assemblage pattern and life strategies. *Ecological Indicators*, *123*, 107365. ISSN: 1470-160X. **IF- 6.263** 11. **Moniruzzaman, M.,** & Saha, N. C. Consequences of sodium dodecyl sulfate exposure on the antioxidant status and steroidogenesis in fish gonad. *Environmental Science and Pollution Research*, 1-13. ISSN- 09441344. **IF- 5.190** 12. **Moniruzzaman, M.,** & Saha, N. C. (2020). Impact of variation in abiotic factors and metal accumulation pattern on the annual rhythmicity of antioxidants and maintenance of oxidative balance in fish gill. *Chemistry and Ecology*, 1-15. ISSN: 0098-0331 **IF- 2.381** 13. **Moniruzzaman M**, Mukherjee M, Das D and Chakraborty SB (2020). Effectiveness of melatonin in face of permethrin induced toxicity. *Environmental Pollution.* In press. ISSN: 0269-7491 **IF- 9.988** 14. **Moniruzzaman M,** Kumar S, Das D, Sarbajna A and Chakraborty SB (2020). Enzymatic, nonenzymatic antioxidants and glucose metabolism enzymes response differently against metal stress in muscles of three fish species depending on different feeding niche. *Ecotoxicology and Environmental safety*. 202, 110954. ISSN- 0147-6513 **IF- 7.129** 15. **Moniruzzaman M,** Das D, Dhara A and Chakraborty SB (2020). Enzymatic, non-enzymatic antioxidants levels and Heat Shock Protein expression as indicators of metal induced toxicity and reproductive modulation in female Indian major carp *Cirrhinus cirrhosus*. *Bulletin of Environmental Contamination and Toxicology*. 104(2), 235-244. ISSN- 0007-4861 **IF- 2.807** 16. Mukherjee A, Bhowmick AR, Mukherjee J and **Moniruzzaman M*** (2019). Physiological response of fish

	under variable acidic conditions: A molecular approach through the assessment of an ecophysiological marker in the brain. *Environmental Science and Pollution Reasearch.* 20, 23442-23452. ISSN- 09441344 **IF- 5.190 (*Corresponding Author)** *17.* Paul S, Kumar S, **Moniruzzaman M**, Chakraborty SB (2019). Oxygen Consumption of *Mystus gulio* under Combined Stress of Varying Salinity and Temperature. *Thalassas: An International Journal of Marine Sciences.* 1-6 **IF- 0.951** 18. Ganguly A, **Moniruzzaman M*,** Chakraborty SK, Karan S, Mukherjee J (2019). Impact of metal accumulation pattern on the annual rhythmicity of antioxidants and their interrelationship to maintain the oxidative balance in mollusc. *Biological Rhythm Research*. 1-6 ISSN- 0929-1016 **IF- 1.362 (*Equal Contribution as first author)** 19. Mukherjee D, Ghosal I, **Moniruzzaman M,** De M and Chakraborty SB (2019). Dietary administration of ethanol and methanol extracts of Withania somnifera root stimulates innate immunity, physiological parameters and growth in Nile Tilapia *Oreochromis niloticus. Croatian journal of fisheries.* 77, 107-118. ISSN- 1848-0586 **IF- 1.1** 20. **Moniruzzaman M,** Mukherjee J, Jacquin L, Mukherjee D, Mitra P, Ray S, Chakraborty SB (2018). Physiological and behavioural responses to acid and osmotic stress and effects of *Mucuna* extract in Guppies. *Ecotoxicology and Environmental Safety.* 163, 37-46. ISSN- 0147-6513 **IF- 7.129** 21. **Moniruzzaman M,** Ghosal I, Das D, Chakraborty SB (2018). Melatonin ameliorates H2O2 induced oxidative stress through modulation of Erk/Akt/NFkB pathway. *Biological Research* 51, 17. ISSN- 0716-9760 **IF- 7.634** 22. Das D, Das P, **Moniruzzaman M,** Sarkar MP, Mukherjee J, Chakraborty SB (2018). Consequences of oxidative damage and mitochondrial dysfunction on the fatty acid profile of muscle of Indian Major Carps considering metal toxicity. *Chemosphere*. 207, 385-396. ISSN- 0045- 6535 **IF- 8.943** 23. **Moniruzzaman M,** Das D, Dhara A, Midday P, Chakraborty SB (2018). Change in redox state and heat shock protein expression in an Indian major carp *Cirrhinus cirrhosus* exposed to zinc and lead. *The Journal of toxicological sciences.* 42, 731-740. ISSN- 1880- 3989 **IF- 1.792** 24. Das D, **Moniruzzaman M**, Mukhopadhyay S, Karan S, Sarbajna A, Chakraborty SB (2018). Impact of metal toxicity onoxidative balance and mitochondrial enzyme function in muscle of tilapia. *Bulletin of Environmental Contamination & Toxicology.* 100, 647-652. ISSN- 0007-4861 **IF- 2.807** 25. **Das D, Moniruzzaman M, Chakraborty SB (2017). Effect of**

	heavy metals on tissue specific antioxidant response in Indian major carp. *Environmental Science and Pollution Reasearch.* 24, 18010-18024. ISSN- 09441344 IF- 5.190 **26. Mukherjee D., Moniruzzaman M, Ghosal I & Chakraborty SB (2017). Methanolic extract of *Mucuna pruriens* seed acts for neuro protection and antioxidant defense in a fish model. *International Journal of Pharmacognosy and Phytochemical Research.* ISSN- 0975-4873** **27. Mukherjee J, Moniruzzaman M*, Chakraborty SB, Lek S & Ray S (2017). Towards a physiological response of fishes under variable environmental conditions: An approach through neural network. *Ecological Indicators.* 78, 381-394. ISSN- 1872- 7034 IF- 6.263 (*Equal Contribution as first author)** **28. Mukherjee M, Moniruzzaman M*, Kumar S, Das D & Chakraborty SB (2017). Neuronal and Oxidative Damage in the Catfish Brain Alleviated After *Mucuna* Seed Extract Treatment.** **29. *International Journal of Pharmacognosy and Phytochemical Research.* 9, 52-57. ISSN- 0975-4873 (*Equal Contribution as first author)** **30. Moniruzzaman M, Mukherjee J, Das D & Chakraborty SB (2017). Impact of physical aquatic parameters on the annual rhythmicity of sex steroid and cortisol and their interrelationship in two distantly related fish population. *Biological Rhythm Research*. 1-12 ISSN- 0929- 1016 IF- 1.362** **31. Kumar S, Moniruzzaman M*, Mukherjee M, Das D & Chakraborty SB (2016). *Mucuna* Seed Extract Treatment Alleviates SDS-Induced Oxidative Stress and Neuronal Damage in Carp Brain. *International Journal of Pharmacognosy and Phytochemical Research.* 8, 1669- 1674. ISSN- 0975-4873 (*Equal Contribution as first author)** **32. Moniruzzaman M, Hasan KN & Maitra SK (2016). Action of melatonin on ovaprim-induced oocyte maturation in carp. *Reproduction*. 151, 285-296. ISSN- 1470- 1626. IF- 3.923** **33. Hasan KN, Moniruzzaman M & Maitra SK (2014). Melatonin concentrations in relation to oxidative status and oocyte dynamics in the ovary during different reproductive phases of an annual cycle in carp *Catla catla. Theriogenology.* 82, 1173-1185. ISSN- 0093-691X IF- 2.923** **34. Mukherjee S, Moniruzzaman M & Maitra SK (2014). Daily and seasonal profiles of gut melatonin and their temporal relationship with pineal and serum melatonin in carp *Catla catla* under natural photo-thermal conditions. *Biological***

	***Rhythm Research*. 45, 301-315 ISSN- 0929- 1016 IF- 1.362** **35. Mukherjee S, Moniruzzaman M & Maitra SK (2014). Impact of artificial lighting conditions on the diurnal profiles of gut melatonin in a surface dwelling carp (*Catla catla*). *Biological Rhythm Research*. 45, 831-845. ISSN- 0929- 1016 IF- 1.362** 36. Maitra SK, Chattoraj A, Mukherjee S & **Moniruzzaman M** (2013). Melatonin: a potent candidate in the regulation of fish oocyte growth and maturation. *General and comparative endocrinology*. 181- 215- 222. ISSN- 0016-6480 **IF- 3.255** 37. **Moniruzzaman M** & Maitra S (2012). Influence of Altered Photoperiods on Serum Melatonin and Its Receptors (MT1 and MT2) in the Brain, Retina, and Ovary in Carp *Catla catla*. *Chronobiology international.* 29, 175-188. ISSN- 0742-0528 **IF- 3.749**