

Curriculum Vitae



Personal information

First name(s) / Surname(s) **Mohammad Shamsur RAHMAN, PhD**
Address **Professor
Aquaculture Branch, Department of Fisheries
University of Dhaka, Dhaka-1000, BANGLADESH**
Telephone(s) +88029881920/7789 Mobile +8801818314899
Fax(es) +88 02 9667222 (VC Office)
E-mail(s) shamsur@du.ac.bd; shamsuaf@gmail.com
Website http://www.du.ac.bd/faculty/faculty_details/AQF/1502
Nationality Bangladeshi
Date of birth 01 June 1979

Research Interests **Aquaculture and Aquatic Animal Health Management**

especially Fish & Shrimp Diseases: Diagnostics, Prevention and Control; Application of Biotechnology, Molecular Biology, Bioinformatics in Health Management; Aquatic Animal Production in RAS (Recirculating Aquaculture Systems), Biofloc Aquaculture Systems.

Work experiences

28 January 2020 to date **Professor**
Aquaculture Branch, Department of Fisheries, University of Dhaka, Dhaka-1000, Bangladesh

01 January to 31 March 2020 **National Consultant**
Fish Pharmacology Course Curriculum Development for a BSFF project supported by USAID/WorldFish funded Feed the Future Bangladesh Aquaculture and Nutrition Activity (FtF BANA)

10 June 2015 to 27 January 2020 **Associate Professor**
Aquaculture Branch, Department of Fisheries, University of Dhaka, Dhaka-1000, Bangladesh

17 February 2013 to 09 June 2015 **Assistant Professor**
Department of Fisheries, University of Dhaka, Dhaka-1000, Bangladesh

26 November 2008 to 16 February 2013 **Lecturer**, Department of Fisheries, University of Dhaka, Dhaka-1000, Bangladesh

01 September 2008 - 25 November 2008 **Lecturer**, Department of Fisheries and Marine Science
Noakhali Science & Technology University, 3802 Noakhali, Bangladesh

15 October 2006 - 31 August 2008 **Senior Research Assistant**, Environmental Microbiology Laboratory, International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B), 1212 Dhaka, Bangladesh

Education

01 January 2010 to 03 April 2013 **Doctor of Philosophy (PhD)** (PhD Research Project: "**Molecular Characterization of *Vibrio* spp. in Shellfish using Multilocus Sequence Analysis**")
Public Health & Comparative Pathology Curricula, Doctoral School of Veterinary Sciences, University of Padova, 35020 Padova, Italy

01 July 2002 - 30 June 2003 **Master of Science (MS) in Fisheries** (Thesis Group: “**Incidence of *Vibrio cholerae* in freshwater fishes of Bangladesh**”)
Department of Fisheries, Faculty of Biological Sciences, University of Dhaka
1000 Dhaka (Bangladesh)

01 July 1998 - 30 June 2002 **Bachelor of Science (BSc) with Honours in Fisheries** (Internship: “**Short-Term Preservation by Gamma Radiation and Some Aspects of Biochemical Composition of *Puntius sarana* (Ham., 1822)**”)
Department of Fisheries, Faculty of Biological Sciences, University of Dhaka
1000 Dhaka (Bangladesh)

Training

- 04-14 January 2021 Training on “**Strengthening the linkages between feed optimization, fish production and healthy diets**” organized by Wageningen University and Single Spark in the Netherlands and BAU in Bangladesh.
- 02-06 November 2020 Training on “**Metagenomics Bioinformatics (Virtual)**” organized by European Molecular Biology Laboratory- European Bioinformatics Institute (EMBL-EBI), Hinxton, United Kingdom
- 18 November 2019 EURASTiP Capacity building foresight workshop: **Enhancing opportunities for Mobility in the Aquaculture sector between south-east Asia and Europe**; Kuala Lumpur, Malaysia.
- 25 February-01 March 2019 Advanced course on “**Application of Epidemiology in Aquatic Animal Health**”, Mediterranean Agronomic Institute of Zaragoza, **Spain** in collaboration with MedAid Project, EU Horizon 2020
- 16-30 October 2018 **EURASTiP Educator Capacity Building Exchange Programme**, Laboratory of Aquaculture and Artemia Reference Center, University of Ghent, **Belgium**
- 05-14 March 2018 “**Advanced Training on Biotechnology**” organized by National Institute of Biotechnology (NIB), Dhaka-1349, Bangladesh
- 27-30 October 2017 Short course on “**Project Management: Computer-based approach**” organized by Directorate of continuing education (DCE), Bangladesh University of Engineering and Technology (BUET)
- 26 -27 September 2017 Training on **TiLV RT-PCR: Building Capacity on Aquatic Animal Disease Diagnostics in Bangladesh**
WorldFish and BFRI, Bangladesh; conducted by Dr Agus Sunarto, CSIRO health and biosecurity, Australian Animal Health Laboratory (AAHL).
- 29 July to 02 August 2017 **Application of Molecular Diagnostic Methods for shrimp and prawn**
SAFETI Project and Farmer-to-Farmer program, Winrock International; conducted by Dr Arun K Dhar, Director of Aquaculture Pathology Laboratory, UAZ, USA.
- 19 July to 20 July 2017 **Basic molecular biological steps of Bacterial identification**
Invent Technologies Ltd. Bangladesh
- 27 February to 17 March 2017 **Responsible aquaculture development for food security and economic progress**
Centre for Development Innovation (CDI), Wageningen University & Research, The Netherlands
- 01 to 03 June 2016 **Train-the –Trainer course on “Seafood Hazard Analysis Critical Control Point (HACCP)”**
Bangladesh Shrimp and Fish Foundation (BSFF) in collaboration with Joint Institute for Food Safety and Applied Nutrition (JIFSAN), University of Maryland, USA
- 8 to 12 May 2016 **Quality management and value addition in Fish and Shrimp processing in Bangladesh**
Bangladesh Shrimp and Fish Foundation (BSFF) in collaboration with The United Nations University Fisheries Training Programme; and Matis Food Research and Biotechnology Laboratories, Iceland

- 30 November to 17 December 2015 **Statistical Data Analysis for Biological Sciences using R**
Institute of Statistical Research and Training (ISRT) under HEQEP project (CP 3236),
University of Dhaka, Bangladesh
- 22 September to 01 October 2014 **Experimental techniques using Medaka and Xenopus-the merits of using both**
The 8th NIBB/The 3rd NIBB-TLL-DBS/NUS Joint International Practical course on Genome
editing, National Institute for Basic Biology, Okazaki, Japan
- (09 to 11) September 2014 **Cell Culture techniques to encourage intracellular growth of virus for research
purpose**
Strategies in reducing the burden of influenza infections in slum, Dhaka, Bangladesh (CP
2212, HEQEP), Department of Microbiology, University of Dhaka, Bangladesh
- 07 September 2014 **Workshop on “Isolation and identification of influenza virus”**
Strategies in reducing the burden of influenza infections in slum, Dhaka, Bangladesh (CP
2212, HEQEP), Department of Microbiology, University of Dhaka, Bangladesh
- (22 to 28) December 2013 **Training Course “Data Analysis (SPSS)”**
Faunal Survey and Enrichment of Facilities for Biodiversity Research Sub-Project, University
of Dhaka, Bangladesh
- (17 to 21) November 2013 **Training Course “Bioinformatics for Biological Research”**
Faunal Survey and Enrichment of Facilities for Biodiversity Research Sub-Project, University
of Dhaka, Bangladesh
- (01 to 04) October 2013 **Training Course “DNA Barcoding: A tool for molecular taxonomy”**
Faunal Survey and Enrichment of Facilities for Biodiversity Research Sub-Project, University
of Dhaka, Bangladesh
- (03 to 07) October 2011 **Theoretical and Practical Course “ Advanced Bioinformatics: Computational Systems
Biology”**
International Centre for Genetic Engineering and Biotechnology (ICGEB), Trieste, Italy
- (25 to 29) August 2010 **PhD Pre-Course “ Advanced Food Microbiology” 4 ECTS credits**
University of Copenhagen, Denmark
- 10 May to 02 July 2009 **“ Foundation Training for University Teachers”**
Graduate Training Institute (GTI), Bangladesh Agricultural University

Additional information

A. Publications

Book Section

1. **Mohammad Shamsur Rahman**, Nusrat Jahan Punom, Md Mostavi Enan Eshik and Mst Khadiza Begum. "Application of Molecular Biology Techniques in Aquatic Animal Health Research." Trends in Biochemistry and Molecular Biology. Hossain Uddin Shekhar and MM Towhidul Islam NY: Nova Science Publishers, Inc, USA. 2019: 337-382. <https://novapublishers.com/shop/trends-in-biochemistry-and-molecular-biology/>

Popular Article

1. **Mohammad Shamsur Rahman**, Nusrat Jahan Punom and Mst Khadiza Begum. "Importance and Application of ‘Aquatic Code’ published by OIE on Aquatic Animal Health Management" National Fish Week 2019 Compendium (*in Bangla*). Department of Fisheries (DoF), Ministry of Fisheries and Livestock, Bangladesh 2019: 84-87

2. Shawon Ahmmmed, Md Mostavi Enan Eshik and **Mohammad Shamsur Rahman**. "Application of Whole Genome Sequencing to detect Aquaculture Pathogen" National Fish Week 2020 Compendium (*in Bangla*). Department of Fisheries (DoF), Ministry of Fisheries and Livestock, Bangladesh 2020: 84-86

Scientific Articles

42. Yasin, A, MK Begum, MME Eshik, NJ Punom, S Ahmmed and **MS Rahman**. 2022. Molecular identification and antibiotic resistance patterns of diverse bacteria associated with Shrimp PL nurseries in south-west region of Bangladesh: suspect *Acinetobacter venetianus* as future threat. "PeerJ-Life and Environment" 10:e12808 <https://doi.org/10.7717/peerj.12808>
41. Arifa, MK Begum, RM Lalon, ABMS Alam and **MS Rahman**. 2021. Economic feasibility of Pabda and Stinging catfish culture in Recirculating Aquaculture Systems (RAS) in Bangladesh. Aquaculture International, <https://doi.org/10.1007/s10499-021-00807-1>
40. Maruf, A, NJ Punom, B Saha, M Moniruzzaman, PD Suchi, MME Eshik, **MS Rahman**. 2021. Assessment of human health risks associated with heavy metals accumulation in the freshwater fish *Pangasianodon hypophthalmus* in Bangladesh. Journal 'Exposure and Health' 13: 337-359; DOI: <https://doi.org/10.1007/s12403-021-00387-8>
39. Talukder, AS, NJ Punom, MME Eshik, MK Begum, HMR Islam, Z Hossain and **MS Rahman**. 2021. Molecular identification of white spot syndrome virus (WSSV) and associated risk factors of white spot disease (WSD) prevalence in shrimp (*Penaeus monodon*) aquaculture of Bangladesh. 'Journal of Invertebrate Pathology' 179: 107535; DOI: 10.1016/j.jip.2021.107535
38. Abedin, MM, MME Eshik, NJ Punom, MK Begum and **MS Rahman**. 2020. Genetic characterization of swamp eel of Bangladesh through DNA barcoding and RAPD techniques. Journal of the Asiatic society of Bangladesh (Science), 46 (2): 117-131.
37. Akter, MT, MH Faruque, MR Hasan, **MS Rahman**. 2020. Proximate composition, amino acids and fatty acids profiles of wild and cultured climbing perch *Anabas testudineus* (Bloch, 1795). Bangladesh Journal of Zoology, 48 (2): 365-378. <https://doi.org/10.3329/bjz.v48i2.52376>
36. **Rahman, MS**, MME Eshik, NJ Punom, MM Abedin and MK Begum. 2020. Diversity of *Vibrio* species' and their antibiotic sensitivity patterns in Black Tiger Shrimp *Penaeus monodon* (Fabricius, 1798) cultured in south-west region of Bangladesh. Asian Fisheries Science, 33 (4): 330-340. <https://www.asianfisheriessociety.org/publication/abstract.php?id=1338>
35. Yasin, A, MK Begum, B Saha, PD Suchi, MME Eshik and **MS Rahman**. 2020. Heavy metals concentration and possible health risks from shrimp nurseries at south-west region, Bangladesh. Bangladesh J. Zool. 48 (1): 167-179. <https://www.banglajol.info/index.php/BJZ/article/view/47885>
34. Begum, MA, NJ Punom, MME Eshik, MK Begum, T Khan, ML Saha and **MS Rahman**. 2020. Pathogenic gut microbiota associated with striped catfish, *Pangasianodon hypophthalmus* (sauvage, 1878) cultured in Bangladesh and their antibiotic sensitivity pattern. Dhaka University Journal of Biological Sciences 29(1): 61-73. <https://www.banglajol.info/index.php/DUJBS/article/view/46531>
33. Ahmed, S, MAAK Khan, MME Eshik, ABMMK Islam and **M.S. Rahman**. 2019. Genomic and evolutionary features of two AHPND positive *Vibrio parahaemolyticus* strains isolated from shrimp (*Penaeus monodon*) of south-west Bangladesh. Published in the Journal 'BMC Microbiology' 19: 270; <https://doi.org/10.1186/s12866-019-1655-8>
32. Hossain, MM, NJ Punom, MME Eshik, MK Begum, MAI Bhuiyan and **MS Rahman**. 2019. Histopathology and molecular characterization of microsporidian parasites in cultured shrimp *Penaeus monodon* of Bangladesh. Journal of the Asiatic society of Bangladesh (Science) 45 (2): 227-236. <https://www.banglajol.info/index.php/JASBS/article/view/46592>
31. Hasan, M, MI Haque, N Akter, **MS Rahman** and AS Eti. 2019. Effects of wetting media cattle blood, rice gruel and water on the yield and amino acid composition of tubificid worms. Journal of the Asiatic society of Bangladesh (Science) 45 (2): 249-259. <https://www.banglajol.info/index.php/JASBS/article/view/46596>
30. Begum, MA, NJ Punom, MME Eshik, MK Begum, ML Saha and **MS Rahman**. 2019. Proximate composition, fatty acid and amino acid profile of striped catfish, *Pangasianodon hypophthalmus* (Sauvage, 1878) cultured in Bangladesh. Bioresearch Communications. 5 (2): 715-724. <http://www.bioresearchcommunications.com/index.php/brc/article/view/160>
29. Rana, S, Faruque MH, Eshik MME, Hasan MR, **MS Rahman**. 2019. Seasonal variations in nutritional profile of the freshwater mud eel, *Monopterus albus* (Hamilton, 1822). Journal of Fisheries 7(1): 671-680. <http://journal.bdfish.org/index.php/fisheries/article/view/8>
28. Begum, MK, MME Eshik, NJ Punom, MM Abedin and **MS Rahman**. 2018. Growth performances and bacterial load of *Heteropneustes fossilis* (Bloch, 1794) using cinnamon as feed supplement. Bangladesh J. Zool. 46 (2): 155-166. <https://www.banglajol.info/index.php/BJZ/article/view/39049>

27. Eshik, MME, NJ Punom, MK Begum, T Khan, ML Saha and **MS Rahman**. 2018. Molecular characterization of Acute Hepatopancreatic necrosis disease (AHPND) causing *Vibrio parahaemolyticus* strains in cultured shrimp *Penaeus monodon* in south-west farming region of Bangladesh. *Dhaka University journal of Biological Sciences* 27(1): 57-68. <https://www.banglajol.info/index.php/DUJBS/article/view/46411>
26. **Rahman, MS**, R. Carraro, B. Cardazzo, L. Carraro, D.B. Meneguolo, M.E. Martino, N.A. Andreani, P. Bordin, R. Mioni, E. Novelli, S. Balzan and L. Fasolato. 2017. Molecular typing of *Vibrio parahaemolyticus* strains isolated from mollusks in the North Adriatic Sea. *Foodborne pathogens and disease* 14 (8): 454-464. Online ahead of print, 17 May 2017. <https://doi.org/10.1089/fpd.2016.2263>
25. Hasan, M.A.R., M.I. Haque, A. Hossain, M. Hasan and **MS Rahman**. 2017. Bacterial loads in shrimp and fish hatchery environments of Bangladesh. *J. Asiat. Soc. Bangladesh, Sci.* 43 (1): 37-47. <https://www.banglajol.info/index.php/JASBS/article/view/46242>
24. Smriti, S., T. Islam, M.K. Begum, N.J. Punom, S. Mitra, A. Hossain, R.H. Sarker and **MS Rahman**. 2017. Fraudulence detection in fish marketing of Bangladesh using DNA barcoding. *Journal of Bangladesh Academy of Sciences*. 41 (1): 17-27. <https://www.banglajol.info/index.php/JBAS/article/view/33658>
23. Eshik, MME, MM Abedin, NJ Punom, MK Begum and **MS Rahman**. 2017. Molecular identification of AHPND positive *Vibrio parahaemolyticus* causing an outbreak in south-west shrimp farming regions of Bangladesh. *Journal of Bangladesh Academy of Sciences*. 41 (2): 127-135. <https://www.banglajol.info/index.php/JBAS/article/view/35492>
22. Islam, M.R., M.R. Hassan, M. Begum, N.J. Punom, M.K. Begum, N. Sultana and **MS Rahman**. 2017. Effects of feeding zooplankton, *Moina macrocopa* (Straus, 1820) on the growth and body composition of Nile tilapia *Oreochromis niloticus* L. *Bangladesh J. Sci. Ind. Res.* 52 (2): 127-134. <https://www.banglajol.info/index.php/BJSIR/article/view/32910>
21. Hasan, M.A.R., M.A. Siddique, M. Hasan, M.A. Hossain and **MS Rahman**. 2017. 16S rRNA gene sequence based identification of *Vibrio* spp. in shrimp and tilapia hatcheries of Bangladesh. *Dhaka Univ. J. Biol. Sci.* 26 (1): 45-58. <http://journal.library.du.ac.bd/index.php?journal=dujbs&page=article&op=view&path%5B%5D=967>
20. Hossain, M.B., N. Sultana, P. Noor, S. Khan, S.A. Lisa, M. Begum, N.J. Punom, M.K. Begum, M.R. Hasan and **MS Rahman**. 2017. Growth performances and fatty acid profile of Nile tilapia *Oreochromis niloticus* (Linnaeus, 1758) fed with different phytoplankton. *Dhaka Univ. J. Biol. Sci.* 26 (1): 13-27. <http://journal.library.du.ac.bd/index.php?journal=dujbs&page=article&op=view&path%5B%5D=964>
19. Kabir, M.A., **MS Rahman**, M. Begum and M.H. Faruque. 2017. Genetic diversity by RAPD in four populations of Rohu *Labeo rohita*. *Croatian Journal of Fisheries* 75: 1-9. <https://doi.org/10.1515/cjf-2017-0003>
18. Hossain, M.A., A. Ganguly, S.M.A. Rahman, A. Hossain, M. Hasan and **MS Rahman**. 2016. Amino acid profile of the gelatin extracted from the scales of catla, rohu, grass carp and their mixed type. *Bangladesh J. Zool.* 44 (2): 185-195. <https://www.banglajol.info/index.php/BJZ/article/view/32758>
17. Hossain, M.I., B. Saha, M. Begum, N.J. Punom, M.K. Begum and **MS Rahman**. 2016. Bioaccumulation of heavy metals in Nile tilapia *Oreochromis niloticus* (Linnaeus 1758) fed with commercial feeds. *Bangladesh Journal of Scientific Research*. 29 (2): 89-99. <https://www.banglajol.info/index.php/BJSR/article/view/32325>
16. Sarder, H., T. Khan, M.L. Saha, N.J. Punom, S.C. Mandal and **MS Rahman**. 2016. Prevalence and antibiotic susceptibility of *Aeromonas hydrophila* isolated from freshwater fishes. *Journal of Fisheries* 4(3): 411-419. http://journal.bdfish.org/index.php/fisheries/article/view/JFish_177
15. Punom, N.J., A.K.M.M. Hasan, W. Haque, M.K. Begum and **MS Rahman**. 2016. 16S rRNA sequence based identification of pathogenic gut microbiota of Rohu *Labeo rohita* (Hamilton-Buchanan 1822) and Silver Carp *Hypophthalmichthys molitrix* (Valenciennes 1844). *Dhaka Univ. J. Biol. Sci.* 25(2): 169-184. <https://www.banglajol.info/index.php/DUJBS/article/view/46340>
14. Hossain, M.J., A. Hossain, S.C. Mandal and **MS Rahman**. 2016. Impact of live tubificid worms on the growth and survival of *Heteropneustes fossilis* (Bloch, 1794) reared in tanks. *Bangladesh J. Sci. Ind. Res.* 51(3): 175-182. <https://www.banglajol.info/index.php/BJSIR/article/view/29417>

13. Rohomania, T., M.L. Saha, A. Hossain and **MS Rahman**. 2015 (June-December). Morphological and Biochemical Characterization of Bacteria isolated from fresh and salted Hilsa, *Tenulosa ilisha* (Hamilton, 1822). Bangladesh J. Microbiol. 32 (1&2): 07-13. <https://www.banglajol.info/index.php/BJM/article/view/28471>
12. Haque, M.M., A. Hossain, S.C. Mandal, **MS Rahman** and Z.H. Mahmud. 2015 (July). Prevalence, characterization and antibiotic susceptibility of *Vibrio parahaemolyticus* isolated from fishes and shellfishes of coastal regions of Bangladesh. Dhaka Univ J Biol Sci. 24(2) : 121-129. <https://www.banglajol.info/index.php/DUJBS/article/view/46319>
11. Husain, M.A., A. Hossain, S.C. Mandal, M.A. Kabir and **MS Rahman**. 2015 (January). Optimization of feeding frequency on the growth performance of thai pangas, *Pangasius hypophthalmus* (Sauvage, 1878). Dhaka Univ J Biol Sci. 24(1): 83-90. <http://journal.library.du.ac.bd/index.php?journal=dujbs&page=article&op=view&path%5B%5D=1013>
10. Rohomania, T., M.L. Saha, A. Hossain, S.C. Mandal and **MS Rahman**. 2014. Microbial and proximate composition of fresh and salted hilsa, *Tenulosa ilisha*. Bangladesh J Zool. 42(2): 235-244. <https://www.banglajol.info/index.php/BJZ/article/view/23365>
9. Kabir, M.A., **MS Rahman**, A. Hossain and S.C. Mandal. 2014. Proximate composition and microbial quality of three imported aquarium fish feeds in Bangladesh. Bangladesh J Zool. 42(2): 291-302. <https://www.banglajol.info/index.php/BJZ/article/view/23371>
8. **Rahman, MS**, M.E. Martino, B. Cardazzo, P. Facco, P. Bordin, R. Mioni, E. Novelli and L. Fasolato. 2014. *Vibrio* trends in the ecology of the Venice lagoon. *Appl. Environ. Microbiol.* 80(8): 2372-2380. <https://aem.asm.org/content/80/8/2372.long>
7. Rabbane, M.G., **MS Rahman** and A. Hossain, 2013. Role of maternal cortisol hormone on gene regulation of Zebra fish (*Danio rerio*, F. Hamilton, 1822). Dhaka Univ. J. Biol. Sci. 22 (2): 135-144. <https://www.banglajol.info/index.php/DUJBS/article/view/46289>
6. Rahman, M.M., **MS Rahman** and M. Hasan. 2011. Changes in sperm quality of silver (*Hypophthalmichthys molitrix*) and bighead carps (*Hypophthalmichthys nobilis*) during the spawning season. Asian Fisheries Sciences 24: 413-425. <https://www.asianfisheriessociety.org/publication/abstract.php?id=84>
5. Hossain, A., **MS Rahman** and M. Hasan. 2011. Optimum harvest for sustainable yield of fish live food Tubificid Worms. Dhaka Univ. J. Biol. Sci. 20(1): 57-63. <https://www.banglajol.info/index.php/DUJBS/article/view/8838>
4. **Rahman, MS**, M. Hasan, Z. H. Mahmud and M. S. Islam. 2010. Bacterial load in twelve freshwater Fishes of four feeding habits in Bangladesh. Dhaka Univ. J. Biol. Sci. 19(2): 145-150. <https://banglajol.info/index.php/DUJBS/article/view/8956>
3. Parvin, H., M.H. Uddin, H. Khanum, M.S. Islam, M.A. Matin, **MS Rahman**, H.P. Endtz, A. Cravioto and M.S. Islam. 2010. Prevalence of Helminths in a lake of Dhaka city, Bangladesh. Bangladesh J. Zool. 38(1): 31-39.
2. Sarker, B. S., M. Hasan, **MS Rahman** and A.F.M.A. Rahman. 2009. Non-Conventional fishery by-products of fish markets in Dhaka Metropolis, Bangladesh. Asia-Pacific Journal of Rural Development. Vol.XIX. No.2: 57-72. <https://journals.sagepub.com/doi/abs/10.1177/1018529120090205>
1. **Rahman, MS**, M. Hasan, Z. H. Mahmud and M. S. Islam. 2009. Incidence of *Vibrio cholerae* in twelve freshwater fishes in fish markets of Dhaka Metropolitan City, Bangladesh. Bangladesh J. Zool. 37(1): 113-121.

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3. Haque, MI, MA Siddique, SK Sanyal, A Hossain, SP Nandi, **MS Rahman**, M Sultana, M Hasan and MA Hossain. 2017. Incidence of white spot syndrome virus (WSSV) in cultured shrimp of coastal region in south-west Bangladesh. Proceedings of the 14th ASCON 2017 of CVASU. pp. 25-29
2. Mandal, S. C., M. Hasan, M. H. Manik, **MS Rahman**, A. Hossain, Z. H. Mahmud and M. S. Islam. 2010. Survival of *Vibrio cholerae* O1 in the gut of climbing perch, silver carp and silver barb. Proceedings of the 5th Bangladesh-Japan joint international conference on Food, Health and Environment; Dhaka, Bangladesh, 26-28 December 2010
1. Manik, M. H., M. Hasan, S. C. Mandal, **MS Rahman**, Z. H. Mahmud and M. S. Islam. 2010. Prevalence and characterization of *Escherichia coli* from export quality frozen fishes. Proceedings of the 5th Bangladesh-Japan joint international conference on Food, Health and Environment; Dhaka, Bangladesh, 26-28 December 2010

B. Research Projects

26. "Occurrences of natural co-infection of White Spot Syndrome Virus and AHPND positive *Vibrio parahaemolyticus* in black tiger shrimp of Bangladesh" funded by Ministry of Science and Technology, Government of Bangladesh for fiscal year 2021-2022
25. "Effects of probiotics as alternative to antibiotics to control pathogenic agents in Biofloc aquaculture systems as revealed by metagenomics approach" funded by Centennial Research Grant, University of Dhaka for the year 2021-22
24. "Bacterial diversity in the gill of farmed tilapia (*Oreochromis niloticus*) through 16S rRNA gene sequencing" funded by Centre for Advanced Studies and Research in Biological Sciences, University of Dhaka, Bangladesh for the year 2020.
23. "Revealing the Whole Genome Sequence of AHPND positive *Vibrio parahaemolyticus* strain isolated from shrimp *Penaeus monodon* cultured in Bangladesh" funded by University of Dhaka, Bangladesh for the year 2019-2020
22. "Molecular characterization and antibiotic susceptibility of the causative agents of vibriosis diseases in cultured shrimp *Penaeus monodon* of Bangladesh" funded by Ministry of Science and Technology, Government of Bangladesh for fiscal year 2019-2020
21. "Isolation and identification of *Streptococcus agalactiae* from diseased tilapia (*Oreochromis* spp.) cultured in Bangladesh" Funded by Biotechnology Research Centre, University of Dhaka, Bangladesh for the year 2019-2020
20. "Taxonomic and genetic diversity of shrimp and prawn species of Bangladesh using DNA barcoding" funded by University Grants Commission Bangladesh for the year 2019-2020
19. "Economic feasibility of Recirculating Aquaculture System (RAS) in Bangladesh" funded by University of Dhaka, Bangladesh for the year 2018-2019
18. "Bacterial and heavy metal contamination in Shrimp PL nurseries of south-west farming regions of Bangladesh" funded by Ministry of Science and Technology, Government of Bangladesh for fiscal year 2018-2019
17. "Immediate and accurate diagnosis of emerging Tilapia Lake Virus (TiLV) disease in Bangladesh through molecular approach" funded by Ministry of Education, Government of Bangladesh for the year 2018-19 and 2019-20
16. "Molecular Characterization of Pathogenic Gut Microbiota of Public Health Concern isolated from Farmed and Marketed Striped Catfish *Pangasianodon hypophthalmus* (Sauvage, 1878)" Funded by Biotechnology Research Centre, University of Dhaka, Bangladesh for the year 2018-19
15. "Proximate composition, amino acids and fatty acids profiling of farmed Pangasius fish *Pangasianodon hypophthalmus* (Sauvage, 1878)" funded by University of Dhaka, Bangladesh for the year 2017-2018
14. "Molecular characterization of freshwater eel *Monopterus* spp. of Bangladesh through DNA barcoding" Funded by Biotechnology Research Centre, University of Dhaka, Bangladesh for the year 2017
13. "Diversity of *Vibrio* species' in Black Tiger Shrimp *Penaeus monodon* cultured in South-West region of Bangladesh as revealed by 16S rRNA gene sequencing" funded by University Grants Commission Bangladesh for the year 2016-2017
12. "Pangasius fish industry in Bangladesh-quality aspects and market price variation" funded by Cassidy Levy Kent (USA) LLP in the year 2017
11. "Effect of cinnamon (*Cinnamomum* sp.) as feed supplement on growth performance and bacterial load of *Heteropneustes fossilis* (Bloch, 1972)" funded by Centre for Advanced Studies and Research in Biological Sciences, University of Dhaka, Bangladesh for the year 2017.
10. "Heavy metals accumulation in Black tiger shrimp *Penaeus monodon* cultured in Bagerhat district in Bangladesh" funded by University of Dhaka for the year 2016-2017
9. "Histopathology and Molecular characterization of microsporidian parasite *Enterocytozoon hepatopenaei* (EHP) in Black tiger shrimp *Penaeus monodon*" funded by Ministry of Science and Technology, Government of Bangladesh for fiscal year 2016-2017

8. "Diversity of pathogenic *Vibrio* spp. in shrimp hatchery of Cox's Bazar as revealed by 16S rRNA sequencing" Funded by Biotechnology Research Centre, University of Dhaka, Bangladesh for the year 2016.
7. "Antibiotic susceptibility pattern of *Aeromonas hydrophila* strains isolated from freshwater fishes" funded by Centre for Advanced Studies and Research in Biological Sciences, University of Dhaka, Bangladesh for the year 2016.
6. "Detection of novel strain of *Vibrio parahaemolyticus* causing Early Mortality Syndrome (EMS) in cultured Shrimp" funded by Ministry of Science and Technology, Government of Bangladesh for fiscal year 2015-2016
5. "Isolation of *Lactobacilli* strains of bacteria with probiotic potential from Black Tiger Shrimp (*Penaeus monodon* Fabricius, 1798)" funded by Centre for Advanced Studies and Research in Biological Sciences, University of Dhaka, Bangladesh for the year 2015.
4. "Fraudulence detection in fish marketing of Bangladesh using DNA Barcoding as modern molecular technique" funded by Ministry of Science and Technology, Government of Bangladesh for fiscal year 2014-2015
3. "Molecular Characterization of *Aeromonas hydrophila* Isolated from Cultured Freshwater Fish of Bangladesh" funded by Ministry of Science and Technology, Government of Bangladesh for fiscal year 2013-2014
2. "Isolation and identification of *Vibrio rotiferianus* from fish hatchery" funded by University of Dhaka for the year 2012-2013
1. "Molecular identification of *Vibrio coralliilyticus* from coral of the Saint Martin's Island, Bangladesh" Funded by Biotechnology Research Centre, University of Dhaka, Bangladesh for the year 2013.

C. Attended Conferences

16. **Fisheries Society of Bangladesh (FSB) Biennial Conference**, Mymensingh, Bangladesh, 27-28 December 2019. (Heavy metals accumulation in striped catfish *Pangasianodon hypophthalmus* (Sauvage, 1878) cultured in Mymensingh region of Bangladesh and human health risk assessment)
15. **9th ASEAN-FEN Annual International Fisheries Symposium 2019**, Kuala Lumpur, **Malaysia**, 18-21 November 2019. (Diversity of *Vibrio* species' in *Penaeus monodon* cultured in South-West farming region of Bangladesh and their antibiotic resistance patterns)
14. **4th IPFS-ICBHA 2019-GNOBB Conference**, Dhaka, Bangladesh, 11-13 November 2019. (Phylogenetics of two newly sequenced AHPND positive *Vibrio parahaemolyticus* strains isolated from Shrimp *Penaeus monodon* of south-west region of Bangladesh)
13. **5th FRDC Australasian Scientific Conference on Aquatic Animal Health & Biosecurity**, Cairns, **Australia**, 8-12 July 2019. (Whole Genome Sequencing of *Vibrio parahaemolyticus* strains causes Acute Hepatopancreatic Necrosis Disease in Black Tiger Shrimp *Penaeus monodon* of Bangladesh)
12. **8th Biennial Fisheries Conference and Research Fair 2019**. Organized by Bangladesh Fisheries Research Forum (BFRF), Bangladesh Agricultural Research Council (BARC), Dhaka, Bangladesh. 30-31 March 2019. (Continuous presence of AHPND positive *Vibrio parahaemolyticus* strains isolated from shrimps *Penaeus monodon* cultured in Bangladesh ; Epidemiological study of White Spot Syndrome Virus (WSSV) disease in cultured shrimp of south-west region of Bangladesh; Pathogenic bacteria in shrimp PL nurseries of south-west region of Bangladesh; and Molecular identification and antibiogram of gut bacteria isolated from striped catfish, *Pangasianodon hypophthalmus* (sauvage, 1878) cultured in Bangladesh)
11. **21th National Conference and AGM of the Zoological Society of Bangladesh (ZSB)**, 7-8 December 2018. (Comparison of nutritional quality of Striped catfish, *Pangasianodon hypophthalmus* (Sauvage, 1878) cultured in Bangladesh and Vietnam)
10. **20th International Biennial Conference and AGM of the Zoological Society of Bangladesh (ZSB)**, 9-10 December 2017. (Detection and molecular characterization of microsporidian parasite in cultured shrimp *Penaeus monodon* in south-west farming region of Bangladesh)
9. **10th Symposium on Disease in Asian Aquaculture (DAA10)**, Bali, Indonesia. 28 August - 01 September 2017. (Molecular identification of AHPND positive *Vibrio parahaemolyticus* in cultured shrimp of Bangladesh)
8. **30th Annual Conference of Bangladesh Society of Microbiologists (BSM)**, University of Dhaka, Bangladesh. **April 29, 2017** (Molecular identification of *Vibrio parahaemolyticus* causing Acute Hepatopancreatic Necrosis Disease in cultured Shrimp)
7. **7th Biennial Fisheries Conference and Research Fair 2016**. Organized by Bangladesh Fisheries Research Forum (BFRF),

Bangladesh Agricultural Research Council (BARC), Dhaka, Bangladesh. 29-30 October 2016. (Identification of pathogenic gut microbiota of rohu *Labeo rohita* and silver carp *Hypophthalmichthys molitrix* by 16S rRNA gene sequencing; and Fraudulence detection in fish marketing of Bangladesh using DNA barcoding)

6. International Conference (29th AGM) of Bangladesh Society of Microbiologists (BSM) on Microbes for benefit of the society, University of Dhaka, Bangladesh. **26-28 December, 2015** (Seasonal prevalence of White Spot Syndrome Virus (WSSV) in cultured tiger shrimp (*Penaeus monodon*) of Bangladesh)

5. International level seminar on "Problems and prospects of coastal aquaculture and application of biotechnological tools for rural development", Vidyasagar University, **India**. 01-03 March **2013**. (Effects of salinity on growth and survival of Pungas catfish, *Pangasius hypophthalmus*)

4. 23rd International ICFMH Symposium **Food Micro 2012**, Istanbul, **Turkey**. (03-07) September, 2012. (Population structure of *Vibrio* spp. in Mollusk of Venice Lagoon as revealed by Multilocus Sequence data)

3. 4th Conference on the Biology of Vibrios **Vibrio 2011**, Santiago de Compostela, **Spain**. (01-04) November, 2011. (MLSA (Multilocus Sequence Analysis) Approach to identify Vibrios isolated from Shellfish, Venice lagoon, Italy)

2. 22nd International ICFMH Symposium **Food Micro 2010**, Copenhagen, **Denmark**. 30th August-3rd September, 2010. (Comparison of biochemical and biomolecular approaches to identify *Vibrio* spp. in Shellfish: A preliminary survey in Veneto, Italy)

1. 3rd Biennial **Fisheries Conference and Research Fair 2008**. Organized by Bangladesh Fisheries Research Forum (BFRF), Bangladesh Agricultural Research Council (BARC), Dhaka, Bangladesh. 16-17 January 2008. (Incidence of *Vibrio cholerae* in freshwater fishes of Bangladesh)

D. Life Member/ Member

1. Asian Fisheries Society (AFS) (Permanent Active Member, PAM)
2. Bangladesh Fisheries Research Forum (BFRF)
3. Fisheries Society of Bangladesh (FSB)
4. Zoological Society of Bangladesh (ZSB)
5. Bangladesh Society of Microbiologists (BSM)
6. Bangladesh Association for the Advancement of Science (BAAS)
7. Krishibid Institution Bangladesh (KIB)
8. Asiatic Society of Bangladesh (ASB)
9. Global Network of Bangladeshi Biotechnologists (GNOBB)
10. National Oceanographic and Maritime Institute (NOAMI)(Joint secretary of BoG)

E. MPhil/ PhD candidates guided

1. One PhD student working with 'Molecular characterization of pathogenic strains of bacteria causing Motile Aeromonas Septicaemia (MAS) in *Heteropneustes fossilis*; Implications for potential drug development'; another PhD student working with 'Development of methods for analyzing and monitoring antibiotic and pesticide residues in fish and shrimp'; another PhD student working with 'Optimization of stocking density and probiotics in Biofloc systems for the sustainable intensification of prawn and tilapia Aquaculture in Bangladesh'

2. One MPhil student obtained his degree in 2021 on 'Impacts of commercial drugs and chemicals on aquaculture in north-east Bangladesh'

3. Supervised more than forty MS research students worked on various aspects of Fisheries, Aquaculture, Microbiology, Molecular Biology, Fish and shrimp diseases etc.

At present, six MS students working on fish/shrimp disease, DNA Barcoding, application of Bioinformatics etc.

F. Editorial activity/Journal Reviewer

1. 'PeerJ-Life & Environment' (Academic Editor)
2. Aquaculture Research
3. Aquaculture, Fish and Fisheries
4. Journal of Fish Disease
5. Regional Studies in Marine Science (RSMS)
6. Environmental Processes

7. Chemosphere
8. Journal of the Asiatic Society of Bangladesh, Science
9. Dhaka University Journal of Biological Sciences
10. Bangladesh Journal of Zoology (BJZ)
11. Journal of Noakhali Science and Technology University (JNSTU)

G. Countries Visited for scientific purposes

Australia, Belgium, Denmark, India, Indonesia, Italy, Japan, Malaysia, Spain, The Netherlands, Turkey

H. Collaborations

1. Aquaculture Pathology Laboratory, University of Arizona, Tucson, AZ, USA
2. Food Safety section, Department of Comparative Biomedicine & Food Science, University of Padova, Italy
3. Biofloc Laboratory, Sher-E-Bangla Agricultural University, Dhaka, Bangladesh
4. Shrimp Health Management Laboratory, Shrimp Research Station (SRS), Bangladesh Fisheries Research Institute (BFRI), Bagerhat, Khulna, Bangladesh
5. Fisheries Biotechnology Division, National Institute of Biotechnology (NIB), Dhaka, Bangladesh
6. Environmental Microbiology Laboratory, Laboratory Sciences & Services Division, ICDDR,B, Bangladesh
7. Organic Analytical Research Division, INARS; Zoology section; Soil, agronomy and environment section, Bangladesh Centre for Scientific and Industrial Research (BCSIR), Dhaka, Bangladesh
8. Bioinformatics Laboratory, Department of Genetic Engineering and Biotechnology, University of Dhaka, Bangladesh
9. Laboratory of Microbiology, Plant breeding and biotechnology laboratory, Cytogenetics laboratory, Department of Botany, University of Dhaka, Bangladesh
10. Parasitology Laboratory, Department of Zoology, University of Dhaka, Bangladesh
11. Microbial genetics and Bioinformatics laboratory, Department of Microbiology, University of Dhaka, Bangladesh
12. Chemical Biology & DNA research Laboratory, Department of Clinical Pharmacy and Pharmacology, University of Dhaka, Bangladesh
13. Agro3 Fish Hatchery & Culture Farm, Maskanda, Mymensingh, Bangladesh

I. Names and contacts of three professional referees

Dean of the Faculty

1. Professor Dr AKM Mahbub Hasan

Dean, Faculty of Biological Sciences
University of Dhaka, Dhaka-1000, **Bangladesh**
Cell: +8801832474781; Phone: +88028613243
PABX: +88029661900 ext 4355, 7545
Fax: +88 02 9667222 (VC Office)
Email: deanbio@du.ac.bd, kmhasan47@yahoo.com

PhD supervisor

2. Dottor Luca FASOLATO

Ricercatore Universitario, Department of Comparative Biomedicine and Food Science
Faculty of Veterinary Medicine, University of Padova
Agripolis- Viale dell'Università 16, Legnaro (PD)-35020, **Italy**
Phone: +390498272966, Fax +39 049 8272973
Cell: +393403170415; E-mail: luca.fasolato@unipd.it

Master of Science (MS) thesis supervisor/ Previous employer

3. Dr Zahid Hayat Mahmud

Associate Scientist and Head, Environmental Microbiology Laboratory
International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B)
Dhaka-1212, **Bangladesh**
Phone: +880 2 8860523-32 (2407); Fax: +880 2 8812529
Cell: +8801816695288; Email: zhmahmud@icddr.org