



DR. FARHANA HOQUE

Scientist (Fish Health)

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| Department | Fish Health Management Division |
| Institute | ICAR-Central Institute Freshwater Aquaculture |
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| Fax | 033 – 25683023 |
| Date of Birth | 15 April 1989 |
| Sex | Female |

Academic Qualifications

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| 1 | Ph.D as ‘DST-INSPIRE Fellow’ in Fishery Sciences with specialization in Aquatic Animal Health (First Class First) - 2020 |
| 2 | Master’s Degree in Fishery Sciences (M.F.Sc) with specialization in Aquatic Animal Health (First Class First) - 2013 |
| 3 | Bachelor’s Degree in Fishery Sciences (Gold Medalist) in 2011 from West Bengal University of Animal and Fishery Sciences |

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| Academic Awards | <ul style="list-style-type: none"> ➤ Recipient of ‘Research Achievement Award-2020’ from IISc, Bangalore ➤ ‘DST- INSPIRE Fellowship - 2014’ – for full time Ph.D programme by Department of Science and Technology, Govt. of India ➤ ‘Alltech Young Scientist Award-2014’- 2nd in Indian region. ➤ ‘Certificate of Merit- 2013’ from West Bengal University of Animal and Fishery Sciences for obtaining ‘First class first position’ in M.F.Sc. degree programme ➤ ‘Best Oral Presentation Award-2013’- National Conference on Challenges in Biodiversity and Resource Management, 26 - 27 February, 2013 by University of Kalyani and West Bengal Biodiversity Board. ➤ ‘University Gold Medal of Merit-2011’- B.F.Sc degree programme from West Bengal University of Animal and Fishery Sciences ➤ ‘University Merit Fellowship- 2007- 2013’- B.F.Sc and M.F.Sc degree Programme from West Bengal University of Animal and Fishery Sciences |
| Research Experiences | <p>Five years of research experience in fish disease diagnosis and health management</p> |
| Current Research Interests | <ul style="list-style-type: none"> ➤ Aquatic animal health management ➤ Aquatic and environmental microbiology ➤ Fish and shrimp disease diagnosis ➤ Aquaculture probiotics |

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| | <ul style="list-style-type: none"> ➤ Biocontrol of bacterial pathogens ➤ Post-harvest fishery microbiology ➤ General pathology, parasitology, immunology and molecular biology techniques ➤ Histopathological studies, haematological and biochemical assay |
| <p>Current Research Projects</p> | <ul style="list-style-type: none"> ➤ Institute funded project on “Efficient use of critical inputs towards sustainable aquaculture in the Moyna of Purba Midnapur, West Bengal through cluster approach” (I-98-E) as Co-PI from 2018-2020 ➤ Institute funded project on “Development of improved health management Strategies in the changing scenario of Freshwater Aquaculture in India- Sub Project A: Development of suitable health management protocol for challenged freshwater aquaculture systems in India” (IXX14271) as Co-PI from 2018-2020 ➤ DBT funded Twinning project on “Improving Broodstock Management and Quality Seed Production of <i>Ompokbimaculatus</i> through Application of Molecular Endocrinology” from 2018-2020 |
| <p>Research Projects Completed</p> | <ul style="list-style-type: none"> ➤ Institute funded project on “Evaluation of increasing production of safe fish with feed in sustainable waste water aquaculture” (I-93) as Co-PI from 2016-2018 ➤ Institute funded project on “Studies on technical and economic feasibility of integrated crop livestock fish farming system involving <i>Mystus gulio</i>, <i>Eutropiichthys vacha</i>, <i>Cirrhinus reba</i>, <i>Puntius sarana</i> and |

Oreochromis niloticus along with carps” (I-91-E) as Co-PI from 2016-2018

- NICRA funded project on “Adaptation and mitigation strategies in fisheries and aquaculture to climate change with special reference to freshwater aquaculture” from 2017-2020

Publications

Research papers

- **Hoque, F.,** Pawar, N., Pitale, P., Dutta, R., Sawant, B., Babu, G.P., Choudhary, A., Sundaray, J. K., 2020. Pathogenesis and expression profile of selected immune genes to experimental *Edwardsiella tarda* infection in iridescent shark, *Pangasianodon hypophthalmus*. *Aquaculture Reports* 17, 100371. DOI: 10.1016/j.aqrep.2020.100371
- **Hoque, F.,** Adhikari, S., Hussan, A., Pillai, B. R., 2020. Effect of water salinity levels on growth performance and survival of *Catla catla*, genetically improved *Labeo rohita* (*Jayanti rohu*) and *Cirrhinus mrigala*. *International Journal of Oceanography and Aquaculture* 4(2): 00190. DOI: 10.23880/ijoac-16000190
- **Hoque, F.,** Abraham, T. J., Jayasankar, P., 2019. Isolation and partial characterisation of secondary metabolites from fish-borne bacterium, *Pseudomonas aeruginosa*. *Indian Journal of Fisheries*. 66(1): 81-91. DOI: 10.21077/ijf.2019.66.1.79940-11
- **Hoque, F.,** Abraham, T. J., Nagesh, T. S., Kamilya,

D., 2019. *Pseudomonas aeruginosa* FARP72 offers protection against *Aeromonas hydrophila* infection in *Labeo rohita*. Probiotics and Antimicrobial Proteins. 11(3): 973-980. DOI: 10.1007/s12602-018-9456-1

- Hussan, A., Sundaray, J. K., Mandal, R.N., **Hoque, F.**, Das, A., Chakrabarti, P. P., Adhikari, S., 2019. Invasion of non-indigenous suckermouth armoured catfish of the genus *Pterygoplichthys* (Loricariidae) in the East Kolkata Wetlands: stakeholders' perception. Indian Journal of Fisheries 66 (2): 29-42. DOI: 10.21077/ijf.2019.66.2.86267-05
- **Hoque, F.**, Hussan, A., Das, A., Chakrabarti, P. P., 2018. Managing water quality and fish health in aquaculture: Farmers traditional practices in West Bengal. International Journal of Fisheries and Aquatic Studies 6(4): 31-35.
- **Hoque, F.**, Hussan, A., Das, A., Chakrabarti, P. P., Sundaray, J. K., 2018. Mass mortality associated with *Dactylogyrus* infection in farmed long whiskers catfish, *Mystus gulio*. Journal of Experimental Zoology India 21(1): 227-231.
- Hussan, A., Mandal, R. N., **Hoque, F.**, Das, A., Chakrabarti, P. P., 2018. Dominance of intergrades of invasive suckermouth armoured catfishes *Pterygoplichthys* spp. (Siluriformes: Loricariidae) in coastal wetlands of West Bengal, India. Journal of Indian Society of Coastal Agricultural Research 36(1): 84-92.

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| | <ul style="list-style-type: none"> ➤ Abraham, T.J., Hoque, F., Das, A., Nagesh, T. S., 2017. Effect of culture condition on the level of serum Insulin-like growth factor-1 in Indian major carps. <i>International Journal of Aquaculture</i> 7(10):71-78. DOI: 10.5376/ija.2017.07.0010 ➤ Hoque, F., 2014. Biocontrol of β- haemolytic <i>Aeromonas hydrophila</i> infection in <i>Labeo rohita</i> using antagonistic bacterium <i>Pseudomonas aeruginosa</i> FARP72, <i>International Journal of Pharmaceutical Sciences and Research</i> 5(2): 490-501. |
| Popular articles | <ul style="list-style-type: none"> ➤ Hoque, F., Hussan, A., Das, A., Mishra, S. S., Adhikari, S., 2020. Biopesticides in Aquaculture. <i>Aquaculture Spectrum</i> 31(2): 41-43. ➤ Hoque, F., 2019. Ghost Probiotics- Prospect in Aquaculture. <i>Aquaculture International</i> 52-56. ➤ Hussan A., Adhikari S., Das A., Hoque F., Pillai, B.R., 2019. Fish culture without water. <i>International Journal of Fisheries and Aquatic Studies</i>, 7(5): 39-48. ➤ Hussan A., Hoque F., Das A., Chakrabarti, P. P., 2017. Care to reduce stress. <i>Aquaculture Times</i> 3(4): 49-55. ➤ Hoque, F., Hoque, Z., 2013. Gaps and constraints in aquatic animal disease management. <i>Fishing Chimes</i> 32 (11): 43-46. |
| Book chapter | <ul style="list-style-type: none"> ➤ Sundaray, J.K., Chakrabarti, P.P., Mohapatra, B.C., Das, A., Hussan, A., Ghosh, A. and Hoque, F. (2019). Freshwater Aquaculture in Sundarbans India. In: H. S. Sen (ed.), <i>The Sundarbans: A Disaster-Prone Eco-Region</i>. Coastal Research, 297-322. DOI: |

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| | 10.1007/978-3-030-00680-8 |
| National Assignment | State Coordinator/ NEH states working committee member to coordinate the research and demonstration activities to be undertaken under NEH program of ICAR-CIFA: ➤ Meghalaya State Coordinator (21April 2017 to 17 May, 2018) |