DR. MOHAMMAD SHAFIQUL ALAM

Associate Professor
Department of Genetics and Fish Breeding, Faculty of Fisheries
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ACADEMIC PROFILE

Fisheries geneticist and academic specializing in population and conservation genetics, molecular biology, fish breeding, aquaculture biotechnology, mitochondrial DNA analysis, and artificial breeding. Research experience also includes biosynthesized nanoparticles as fish-feed additives, 16S rRNA/metagenomic approaches, and amphibian evolutionary genetics. Extensive experience in university teaching, postgraduate research supervision, competitive research projects, and international research collaboration, including research appointments at Hiroshima University, Japan.

AREAS OF EXPERTISE

- Population & conservation genetics of fish and amphibians
- Fish genetics, breeding, domestication & broodstock characterization
- Biosynthesized nanoparticles in fish nutrition and health
- Artificial breeding & reproductive biology
- Molecular biology, mtDNA/nuclear markers, evolution & phylogeny
- Aquaculture biotechnology & functional feed additives
- 16S rRNA / metagenomic analysis of fish gut microbiota
- Postgraduate supervision & research project management

EDUCATION & RESEARCH TRAINING

Doctor of Science (D.Sc.) | Hiroshima University, Japan | *2006–2009*
Institute for Amphibian Biology, Graduate School of Science. Thesis: Genetic divergence and evolutionary relationships in six species of genera Hoplobatrachus and Euphlyctis (Amphibia: Anura) from Bangladesh and other Asian countries revealed by mitochondrial gene sequences.

Research Student | Hiroshima University, Japan | *2005–2006*
Institute for Amphibian Biology, Graduate School of Science; research on genetic differentiation and phylogeny of Hoplobatrachus tigerinus and related Asian taxa.

M.S. in Fisheries Biology and Genetics | Bangladesh Agricultural University | *2002–2003*
First Class. Thesis: Study of genetic variation in river and hatchery populations of rohu (Labeo rohita) using allozyme marker.

B.Sc. in Fisheries | Bangladesh Agricultural University | *1996–2001*
First Class; 5th position.

ACADEMIC & RESEARCH APPOINTMENTS

Associate Professor | Department of Genetics and Fish Breeding, Faculty of Fisheries, Gazipur Agricultural University | 2019–Present
Undergraduate and postgraduate teaching; research; postgraduate supervision; academic and administrative responsibilities.

Assistant Professor | Department of Genetics and Fish Breeding, Faculty of Fisheries, Bangabandhu Sheikh Mujibur Rahman Agricultural University (now Gazipur Agricultural University) | 2013–2019

Postdoctoral Researcher | Institute for Amphibian Biology, Graduate School of Science, Hiroshima University, Japan | *Jun 2010–Feb 2013*

Foreign Visiting Researcher | Institute for Amphibian Biology, Graduate School of Science, Hiroshima University, Japan | *Apr 2009–May 2010*

Assistant Professor | Department of Fisheries Biology and Genetics, Sheikh Fajilatunnessa Mujib Fisheries College, Melandah, Jamalpur | *Feb 2005–Feb 2013*

Taught undergraduate courses including fisheries zoology, fish physiology, reproductive physiology of fishes, genetics and fish breeding, and molecular biology and biotechnology.

Research Fellow | Faculty of Fisheries, Bangladesh Agricultural University | Jan 2002–Jun 2004

Research on inbreeding depression of rohu (Labeo rohita) in hatchery and wild populations using allozyme electrophoresis.

HONORS & AWARDS

- Japanese Government (Monbukagakusho: MEXT) Scholarship — Hiroshima University, Japan, 2005
- BCBSNA (Bangladesh Chemical and Biological Society of North America) Scholarship Award — USA, 2003
- National Science and Technology Award — Ministry of Science and Technology, Bangladesh, 2002

RESEARCH GRANTS & PROJECTS

Research portfolio: 9 completed projects (total reported funding: BDT 216.8 lakh) and 2 ongoing projects (total reported funding: BDT 14.65 lakh).

ONGOING PROJECTS

Project title	Sponsor	Amount	Role	Period
Optimization of Biosynthesized Metal Nanoparticles as Fish Feed Additives for Labeo rohita: A Mini Cistern Trial and Metagenomic Impacts	RMW-GAU	11.4 Lakh	Principal Investigator	2024-2027
Boiled Spinach as Nursery Feed: Enhancing Growth and Gut Health in Rohu Fry	Govt-MOST	3.25 Lakh	Principal Investigator	2025-2026

COMPLETED PROJECTS

Project title	Sponsor	Amount	Role	Period
Molecular Characterization of Koi Fish (Anabas testudineus) for Conservation and Broodstock Identification	RMW-GAU	4 Lakh	Principal Investigator	2013-2017
Molecular characterization and population structure of snakehead murrel (Channa striatus) in Bangladesh for conservation and broodstock development	Govt-MOST	5.5 Lakh	Principal Investigator	2014-2016
Establishment of a Live Food Culture Laboratory in the Department of Aquaculture. Fund: World Bank through Higher Education Quality Enhancement Project (HEQEP).	HEQEP, Ministry of Education, Bangladesh.	136 Lakh	Member	2014-2017
Molecular identification of local and exotic strains of koi (Anabas testudineus) for strategic conservation management	BARC-NATP-2	36.6 Lakh	Principal Investigator	2017-2018
Production of crossbreed between native and Vietnam strains of koi (Anabas testudineus) and investigate their aquaculture potentialities	RMW-GAU	13.2 Lakh	Principal Investigator	2017-2020
Survey, collect, domesticate and breeding trial of some native ornamental fishes	Govt-MOST	4 Lakh	Principal Investigator	2020-2022

Project title	Sponsor	Amount	Role	Period
Biosynthesis of potential nanoparticles using local plants and their utilization as fish feed additives for improved survivability, growth, and haematological impacts on Tengra fish	RMW-GAU	11.5 Lakh	Principal Investigator	2021-2024
Molecular diversity of endangered Channa marulius for quality broodstock identification	Govt-UGC	3 Lakh	Principal Investigator	2022-2023
Molecular characterization of stinging catfish (Heteropneustes fossilis) by sequence analysis of mtDNA genes	Govt-MOST	3 Lakh	Principal Investigator	2023-2024

POSTGRADUATE SUPERVISION

M.S. Students Supervised as Major Professor

1. Tahsina Sharmin, MS in Genetics and Fish Breeding, Registration No. 10-05-2377, Winter, 2015, Bangabandhu Sheikh Mujibur Rahman Agricultural University, Gazipur 1706, Bangladesh. Thesis title: Genetic variation in four populations of Channa striata (Channidae: perciformes) revealed by PCR-RFLP and sequence analysis of mitochondrial gene.
2. Sabiqun Nahar, MS in Genetics and Fish Breeding, Registration No. 10-05-2517, Winter, 2015, Bangabandhu Sheikh Mujibur Rahman Agricultural University, Gazipur 1706, Bangladesh. Thesis title: Genetic variation between Bangladeshi, Thai and Vietnamese climbing perch (Anabas testudineus) revealed by PCR-RFLP and sequence analysis of mitochondrial DNA.
3. Arifuzzaman, MS in Genetics and Fish Breeding, Registration No.2010-05-2391, Summer, 2016, Bangabandhu Sheikh Mujibur Rahman Agricultural University, Gazipur 1706, Bangladesh. Thesis title: Genetic Variation in Climbing Perch (Anabas testudineus) from the Chalan Beel wetland in Bangladesh Revealed by PCR-RFLP and Sequence Analysis of Mitochondrial Gene.
4. Shanko Rani Deo, MS in Genetics and Fish Breeding, Registration No. 10-05-2383, Summer, 2016, Bangabandhu Sheikh Mujibur Rahman Agricultural University, Gazipur 1706, Bangladesh. Thesis title: Genetic variation of climbing perch (Anabas testudineus) from wetland ecosystem (haor) in Bangladesh by PCR-RFLP and sequence analysis of mitochondrial gene.
5. Barua, S., Alam, M. S., Khan, M. M. R., & Simonsen, V. (2004). Genetic variation in four hatchery populations of Thai pangas, Pangasius hypophthalmus, of Mymensingh region in Bangladesh using allozyme marker. Pakistan Journal of Biological Sciences, 7(2), 144–149. https://doi.org/10.3923/pjbs.2004.144.149
6. Nayan Chandra Mondal, MS in Genetics and Fish Breeding, Registration No. 16-11-4159, Winter, 2018, Bangabandhu Sheikh Mujibur Rahman Agricultural University, Gazipur 1706, Bangladesh. Thesis title: Breeding performances of Netrokona and Sylhet koi (anabas testudineus) populations in a semi-artificial condition.
7. Swagata Aditya, MS in Genetics and Fish Breeding, Registration No. 13-05-3038, Winter, 2018, Bangabandhu Sheikh Mujibur Rahman Agricultural University, Gazipur 1706, Bangladesh. Thesis title: Genetic variation of Climbing perch (Anabas testudineus) populations in Bangladesh revealed by sequence analysis of mitochondrial control region.

8. Shamima Yeasmin Dipu, MS in Genetics and Fish Breeding, Registration No. 14-05-3289, Summer, 2020, Bangabandhu Sheikh Mujibur Rahman Agricultural University, Gazipur 1706, Bangladesh. Thesis title: Production of crossbred between native and Vietnam strains of koi (Anabas testudineus).
9. Md. Mahamudul Hassan, MS in Genetics and Fish Breeding, Registration No. 14-05-3295, Summer, 2020, Bangabandhu Sheikh Mujibur Rahman Agricultural University, Gazipur 1706, Bangladesh. Thesis title: Molecular characterization of local and exotic climbing perch (Anabas testudineus) collected from different divisions in Bangladesh.
10. Bushratul Jannat, MS in Genetics and Fish Breeding, Registration No. 15-05-3625, Summer, 2021, Bangabandhu Sheikh Mujibur Rahman Agricultural University, Gazipur 1706, Bangladesh. Thesis title: Molecular identification of native and exotic Channa striata (Channidae: Perciformes) in Bangladesh by mtDNA gene sequences.
11. Tanjina Saulin, MS in Genetics and Fish Breeding, Registration No. 16-05-3925, Autumn, 2021, Bangabandhu Sheikh Mujibur Rahman Agricultural University, Gazipur 1706, Bangladesh. Thesis title: Molecular characterization of local and exotic climbing perch (Anabas testudineus) collected from Barishal, Chittagong, Dhaka, and Sylhet divisions in Bangladesh.
12. Redayea Ferdows Rakhi, MS in Genetics and Fish Breeding, Registration No. 2016-05-3955, Summer, 2022, Bangabandhu Sheikh Mujibur Rahman Agricultural University, Gazipur 1706, Bangladesh. Thesis title: Molecular characterization of seven populations of great snakehead fish (Channa marulius) by sequence analysis of mitochondrial CO1 gene.
13. Afroza Sultana, MS in Genetics and Fish Breeding, Registration No. 2016-05-3942, Summer, 2022, Bangabandhu Sheikh Mujibur Rahman Agricultural University, Gazipur 1706, Bangladesh. Thesis title: Genetic variation in native populations of great snakehead fish (Channa marulius) by sequence analysis of mtDNA Cytb gene.
14. Razuana Afrin, MS in Genetics and Fish Breeding, Registration No. 2016-05-3928, Summer, 2022, Bangabandhu Sheikh Mujibur Rahman Agricultural University, Gazipur 1706, Bangladesh. Thesis title: Domestication and inter-species interaction of three native ornamental fishes of Bangladesh in captive condition.
15. Md. Arif Shahariar, MS in Genetics and Fish Breeding, Registration No. 2017-05-4324, Winter, 2023, Bangabandhu Sheikh Mujibur Rahman Agricultural University, Gazipur 1706, Bangladesh. Thesis title: Biosynthesis of gold nanoparticles and its impacts on striped dwarf catfish (Mystus vittatus) as feed additives.
16. Jannatul Ferdous Urmi, MS in Genetics and Fish Breeding, Registration No. 2018-05-4645, Summer 2024, Bangabandhu Sheikh Mujibur Rahman Agricultural University, Gazipur 1706, Bangladesh. Thesis title: Comparative Morpho-Meristic Variations of Asian Stinging Catfish (Heteropneustes fossilis) Originated from Nature and Hatchery Sources in Bangladesh.
17. Md. Zunaed Hossain, MS in Genetics and Fish Breeding, Registration No. 2018-05-4686, Summer 2025, Gazipur Agricultural University, Gazipur 1706, Bangladesh. Thesis title: Biosynthesis of silver nanoparticles and its dietary effects on growth performance and haematological indices in striped dwarf catfish (Mystus vittatus).
18. Md. Mahadi Hasan, MS in Genetics and Fish Breeding, Registration No. 2018-05-4696, Summer 2025, Gazipur Agricultural University, Gazipur 1706, Bangladesh. Thesis title: Effect of biosynthesized zinc oxide nanoparticles as a feed additive on striped dwarf catfish (Mystus vittatus).
19. Md. Shah Newaz, MS in Genetics and Fish Breeding, Registration No.2023-11-6964, Summer 2025, Gazipur Agricultural University, Gazipur 1706, Bangladesh. Thesis title: Effects of silver nanoparticles on gut microbiota composition of striped dwarf catfish (Mystus vittatus): A metagenomic analysis.
20. Atika Khondokar, MS in Genetics and Fish Breeding, Registration No.2019-05-5099, Autumn 2025, Gazipur Agricultural University, Gazipur 1706, Bangladesh. Thesis title: Metagenomic analysis of gut microbiota in striped dwarf catfish (Mystus vittatus) utilizing gold nanoparticles as feed additives.
21. Md. Anayet Hossen Nahid, MS in Genetics and Fish Breeding, Registration No.2023-11-6966, Autumn 2025, Gazipur Agricultural University, Gazipur 1706, Bangladesh. Thesis title: Genetic variation of stinging catfish (Heteropneustes fossilis) populations using mitochondrial gene sequences.
22. Riad Ahmed, MS in Genetics and Fish Breeding, Registration No.2023-11-6967, Autumn 2025, Gazipur Agricultural University, Gazipur 1706, Bangladesh. Thesis title: Biosynthesized iron nanoparticles: characterization and dietary effects on growth and hematology of striped dwarf catfish (Mystus vittatus).
23. Shafiel Mustafa Khan, MS in Genetics and Fish Breeding, Registration No.2023-11-6965, Autumn 2025, Gazipur Agricultural University, Gazipur 1706, Bangladesh. Thesis title: Impact of biosynthesized gold nanoparticles on growth, hematology, and histology of rohu (Labeo rohita).
24. Mst. Israt Zahan Jhumu, MS in Genetics and Fish Breeding, Registration No. 20-05-5398, Expected Autumn 2026, Gazipur Agricultural University, Gazipur 1706, Bangladesh. Thesis title: Impact of iron nanoparticle-enriched feed on gut microbiota of rohu (Labeo rohita) in controlled mini cistern conditions.

M.S. Student Advisory Committee Memberships

1. Sayeda Khanam Liza, MS in Genetics and Fish Breeding, Registration No: 10-05-2375, Summer, 2016, Bangabandhu Sheikh Mujibur Rahman Agricultural University, Gazipur 1706, Bangladesh. Thesis title: Effect of vitamin E on growth, ovarian development and breeding performance of Thai sarpunti (Barbonymus gonionotus Bleeker, 1850)
2. Anukul Chandra Sinha, MS in Genetics and Fish Breeding, Registration No. 10-05-2393, Summer, 2016, Bangabandhu Sheikh Mujibur Rahman Agricultural University, Gazipur 1706, Bangladesh. Thesis title: Impact of different diets on the breeding performance of stinging catfish Heteropneustes fossilis (Bloch, 1794).
3. Hoomayra Yasmin, MS in Fisheries Biology and Aquatic Environment, Registration No. 10-05-2400, Summer, 2016, Bangabandhu Sheikh Mujibur Rahman Agricultural University, Gazipur 1706, Bangladesh. Thesis title: Integration of hydroponic with aquaculture in pond environment.
4. Istiyak Ahmed, MS in Genetics and Fish Breeding, Registration No. 10-05-2402, Autumn, 2016, Bangabandhu Sheikh Mujibur Rahman Agricultural University, Gazipur 1706, Bangladesh. Thesis title: Effects of cadmium accumulation in Nile Tilapia (Oreochromis niloticus, Linnaeus).
5. Barua, S., Alam, M. S., Khan, M. M. R., & Simonsen, V. (2004). Genetic variation in four hatchery populations of Thai pangas, Pangasius hypophthalmus, of Mymensingh region in Bangladesh using allozyme marker. Pakistan Journal of Biological Sciences, 7(2), 144–149. https://doi.org/10.3923/pjbs.2004.144.149
6. Tasnim Siddika Tonny, MS in Fisheries Biology and Aquatic Environment, Registration No. 11-05-2675, Autumn, 2017, Bangabandhu Sheikh Mujibur Rahman Agricultural University, Gazipur 1706, Bangladesh. Thesis title: Salinity tolerance of stinging catfish, Heteropneustes fossilis at different ontogenic stages.
7. Md. Nahid Hasan, MS in Fisheries Biology and Aquatic Environment, Registration No. 12-05-2842, Winter, 2017, Bangabandhu Sheikh Mujibur Rahman Agricultural University, Gazipur 1706, Bangladesh. Thesis title: Production of all female of Heteropneustes fossilis through hormone manipulation.
8. Asaduzzaman Nur, MS in Fisheries Biology and Aquatic Environment, Registration No. 12-05-2863, Winter, 2017, Bangabandhu Sheikh Mujibur Rahman Agricultural University, Gazipur 1706, Bangladesh. Thesis title: Effect of selected seaweed powder as a supplement of fish feed on growth and immune system of Tilapia (Oreochromis niloticus).
9. Md. Faysul Hossain, MS in Fisheries Biology and Aquatic Environment, Registration No. 12-05-2863, Winter, 2018, Bangabandhu Sheikh Mujibur Rahman Agricultural University, Gazipur 1706, Bangladesh. Thesis title: Red seaweed (Hypnea musciformis) powder as a fish feed supplement for growth and immune elicitor of Asian catfish (Heteropneustes fossilis).
10. Fatema Islam, MS in Genetics and Fish Breeding, Registration No. 2014-05-3314, Summer 2020, Bangabandhu Sheikh Mujibur Rahman Agricultural University, Gazipur 1706, Bangladesh. Thesis title: Novel probiotic yeasts isolation from indigenous fruit pineapple (Ananas comosus) promote the growth and hematological parameters of silver barb (Barbonymus gonionotus, Bleeker, 1850).
11. Kamrunnaher Kole, MS in Fisheries Biology and Aquatic Environment, Registration No. 2014-05-3306, Autumn, 2020, Bangabandhu Sheikh Mujibur Rahman Agricultural University, Gazipur 1706, Bangladesh. Thesis title: Toxicological effect of sumithion pesticide on the hematological parameters and its recovery pattern using probiotic in Barbonymus gonionotus.
12. Nahida Islam, MS in Fisheries Management, Registration No. 2014-05-3323, Autumn 2020, Bangabandhu Sheikh Mujibur Rahman Agricultural University, Gazipur 1706, Bangladesh. Thesis title: Feasibility of pen culture in Belai beel, Gazipur.
13. Lokman Hossen, MS in Genetics and Fish Breeding, Registration No. 2017-11-4528, Autumn 2020, Bangabandhu Sheikh Mujibur Rahman Agricultural University, Gazipur 1706, Bangladesh. Thesis title: Fish biodiversity of the Amuladah beel: present status, threats and challenge for conservation.
14. Md. Mokhlechure Rahman, MS in Fisheries Biology and Aquatic Environment, Registration No. 18-08-4897, Summer 2021, Bangabandhu Sheikh Mujibur Rahman Agricultural University, Gazipur 1706, Bangladesh. Thesis title: Performance of seaweed (Hypnea musciformis) as a partial supplement in fish feed on the growth and immune system of gulsha (Mystus cavasius).
15. Koushik Chakroborty, MS in Fisheries Biology and Aquatic Environment, Registration No. 15-05-3587, Autumn 2021, Bangabandhu Sheikh Mujibur Rahman Agricultural University, Gazipur 1706, Bangladesh. Thesis title: Isolation and characterization of bacteria from soil and water and their effect on nutrient composition of soybean meal upon solid-state fermentation.
16. Rabina Akhter Lima, MS in Fisheries Management, Registration No. 15-05-3577, Autumn, 2021, Bangabandhu Sheikh Mujibur Rahman Agricultural University, Gazipur 1706, Bangladesh. Thesis title: Seasonal variation of plankton community structure in the Sundarbans mangrove forest.

17. Md. Mubarak Hossain, MS in Aquaculture, Registration No. 2015-05-3601, Autumn, 2021, Bangabandhu Sheikh Mujibur Rahman Agricultural University, Gazipur 1706, Bangladesh. Thesis title: Replacement of fish meal with blood meal in diet for butter catfish (Ompok pabda).
18. Morshed Shamim Shemul, MS in Fisheries Biology and Aquatic Environment, Registration No. 2015-05-3578, Winter 2021 Bangabandhu Sheikh Mujibur Rahman Agricultural University, Gazipur 1706, Bangladesh. Thesis title: Effect of solvent fraction on phytochemical and antibacterial activities of Sargassum polycystum.
19. Salman Khan, MS in Fisheries Management, Registration No. 2019—05-5307, Winter 2021, Bangabandhu Sheikh Mujibur Rahman Agricultural University, Gazipur 1706, Bangladesh. Thesis title: Fish diversity in relation to salinity gradient in the coastal region of Bangladesh.
20. Md. Tanjel Ahmed, MS in Genetics and Fish Breeding, Registration No. 2016-05-3966, Autumn 2023, Bangabandhu Sheikh Mujibur Rahman Agricultural University, Gazipur 1706, Bangladesh. Thesis title: Evaluation & Characterization of Potential Gut Probiotic from Endangered Spiny Eel (Mastacembelus armatus).
21. Kaniz Mostarin Tanha, MS in Genetics and Fish Breeding, Registration No. 2022-08-6137, Autumn 2024, Gazipur Agricultural University, Gazipur 1706, Bangladesh. Thesis title: Influence of java plum seed powder enriched diet on the growth and immunology of juvenile Barbonymus gonionotus.
22. Md Moniruzzaman, MS in Genetics and Fish Breeding, Registration No. 2017-05-4311, Autumn 2024, Gazipur Agricultural University, Gazipur 1706, Bangladesh. Thesis title: Influence of pineapple derived endophytic yeast on the gonadal development of Barbonymus gonionotus.
23. Shoumik Ahmed, MS in Fisheries Technology, Registration No. 2018-05-4681, Autumn, 2025. Gazipur Agricultural University, Gazipur 1706, Bangladesh. Thesis title: Effects of chitosan coating combined with stevia (Stevia rebaudiana Bertoni) leaf extracts on the quality of refrigerated catla (Gibelion catla) fillets.
24. Sadia Islam, MS in Genetics and Fish Breeding, Registration No. 2019—05-5071, Winter 2025, Gazipur Agricultural University, Gazipur 1706, Bangladesh. Thesis title: Effects of dietary Bacillus subtilis supplementation on immune gene expression, growth performance, and histological health in Nile tilapia (Oreochromis niloticus).
25. Most. Sinthia Rahman, MS in Genetics and Fish Breeding, Registration No. 2019—05-5071, Summer 2026, Gazipur Agricultural University, Gazipur 1706, Bangladesh. Thesis title: Biofloc-driven immune modulation in Nile tilapia (Oreochromis niloticus): QRT-PCR evaluation of immune-related gene expression.

PUBLICATIONS

Peer-reviewed publications: 53 (listed in reverse chronological order)

54. Alam, M. S., Igawa, T., & Shahariar, M. A. (2026). Mitochondrial genomic resources reveal divergence and candidate diagnostic markers among climbing perch (*Anabas testudineus*) mitochondrial haplogroups across South and Southeast Asia. *Conservation Genetics Resources*. **Accepted for publication.**
53. Roy, A., Habib, K. A., Hossain, M. S., Sakib, M. N., Alam, M. S., Alam, M. S., & Kamal, S. A. (2026). Mitochondrial DNA reveals genetic diversity and population structure of Reba carp (Cirrhinus reba) across rivers and haors of Bangladesh. Journal of Freshwater Ecology, 41(1), 2706853. https://doi.org/10.1080/02705060.2026.2706853
52. Shahariar, M. A., Aditya, S., Hassan, M. M., Saulin, T., Arif, A., Deo, S. R., Sharmin, T., Nahar, S., & Alam, M. S. (2026). Mitochondrial Cyt b and CR differentiation and in silico RFLP markers for Bangladeshi and Vietnam-originated climbing perch (Anabas testudineus). Iranian Journal of Fisheries Sciences.
51. Hossain, M. Z., Shahariar, M. A., Rakhi, R. F., Alam, M. S., Hossain, M. A., Das, M., Hasan, M., & Alam, M. S. (2026). Silver nanoparticles as a dietary supplement: Effects on growth and hematological health of striped dwarf catfish (Mystus vittatus). Fisheries and Aquatic Sciences, 29(7), 474–483. https://doi.org/10.47853/FAS.2026.e40
50. Islam, S., Rahman, M. S., Ahmed, R., Haider, M. N., Hasan, M., Alam, M. S., & Alam, M. S. (2026). Emerging roles of probiotics, prebiotics, and synbiotics in fish gut health and oxidative stress regulation. Ecology Journal, 8(1), 63–73. https://doi.org/10.59619/ej.8.1.8
49. Urmi, J. F., Shahariar, M. A., Mohit, A. A., & Alam, M. S. (2026). Phytochemical screening targeting DNA gyrase-B of Aeromonas hydrophila: An in silico approach for sustainable fish disease management. In Silico Research in Biomedicine, 2, 100356. https://doi.org/10.1016/j.insi.2026.100356
48. Newaz, M. S., Khondokar, A., Shahariar, M. A., Hossain, M. S., Kawser, A. Q. M. R., & Alam, M. S. (2026). Effect of silver nanoparticles on gut microbiota composition of striped dwarf catfish (Mystus vittatus): A metagenomic analysis. Aquaculture Studies, 26(3), 500–510. https://doi.org/10.4194/AQUAST2768
47. Alam, M. S., Rakhi, R. F., Rashid, I., Hasan, M., & Kanon, K. F. (2026). Smart proteins and functional additives for fishmeal replacement in aquaculture: Decision frameworks, species-specific limits, and practical pathways. Egyptian Journal of Aquatic Biology & Fisheries, 30(1), 2313–2338. https://doi.org/10.21608/ejabf.2026.451145.7206

46. Khondokar, A., Newaz, M. S., Shahariar, M. A., Hossain, M. S., Rashid, I., Alam, M. S., & Alam, M. S. (2026). Dietary gold nanoparticles modulate the gut microbiota of Mystus vittatus (Bagridae): Evidence from 16S rRNA amplicon sequencing. International Journal of Aquatic Biology, 14(1), 46–59. https://doi.org/10.22034/ijab.v14i1.2661

45. Hasan, M. M., Newaz, M. S., Shahariar, M. A., Hossain, M. Z., Ahmed, R., & Alam, M. S. (2025). Effects of biosynthesized zinc oxide nanoparticles as feed additives on growth and hematological parameters of striped dwarf catfish (Mystus vittatus). Annals of Bangladesh Agriculture, 29(1), 89–103. https://doi.org/10.3329/aba.v29i1.81225

44. Hossain, M. M., Udoy, F. R., Islam, M. R., Akter, T., Alam, M. S., Alam, M. S., Sarker, M. S. A., & Hossain, M. A. (2025). Partial replacement effect of dietary fish meal with blood meal on growth performance, body composition, and haematology of butter catfish Ompok bimaculatus. Journal of Fisheries, 13(3), 133205. https://doi.org/10.17017/j.fish.757

43. Urmi, J. F., Shahariar, M. A., Hossain, M. Z., Rakhi, R. F., Lima, R. A., Islam, M. S., Mondal, M. N., & Alam, M. S. (2024). Comparative morpho-meristic variations of Asian stinging catfish (Heteropneustes fossilis) collected from natural and hatchery sources in Bangladesh. Bangladesh Journal of Zoology, 52(3), 281–300. https://doi.org/10.3329/bjz.v52i3.80788

42. Shahariar, M. A., Hassan, M. M., Aditya, S., Saulin, T., Khondokar, A., & Alam, M. S. (2025). Morpho-meristic variations of the native and Vietnam-originated climbing perch (Anabas testudineus), collected from hatchery sources in Bangladesh. Fisheries and Aquatic Sciences, 28(1), 42–53. https://doi.org/10.47853/FAS.2025.e5

41. Rahman, H., Hossen, L., Alam, M. S., & Rahman, Z. (2025). Assessing freshwater fish biodiversity in Amuladah Beel: Unveiling status, threats, and conservation imperatives. Egyptian Journal of Aquatic Biology & Fisheries, 29(1), 355–373. https://doi.org/10.21608/ejabf.2025.404486

40. Shahariar, M. A., Hossain, M. Z., Urmi, J. F., Hasan, M. M., Masum, M. M. I., Shah, A. K. M. A., Hasan, M., Rahman, Z., & Alam, M. S. (2024). Biosynthesis of gold nanoparticles and its impacts on striped dwarf catfish (Mystus vittatus) as feed additives. Aquaculture Reports, 39, 102446. https://doi.org/10.1016/j.aqrep.2024.102446

39. Rakhi, R. F., Sultana, A., Khan, M. G. Q., Rahman, Z., Hasan, M., Rafiquzzaman, S. M., & Alam, M. S. (2024). Morpho-meristic analysis of the great snakehead (Channa marulius) collected from the lowland ecosystem in Bangladesh and its future implications. Iranian Journal of Fisheries Sciences, 23(2), 207–221. https://doi.org/10.22092/ijfs.2024.130910

38. Sobuj, M. K. A., Shemul, M. S., Islam, M. S., Islam, M. A., Mely, S. S., Ayon, M. H., Pranto, S. M., Alam, M. S., Bhuiyan, M. S., & Rafiquzzaman, S. M. (2024). Qualitative and quantitative phytochemical analysis of brown seaweed Sargassum polycystum collected from Bangladesh with its antioxidant activity determination. Food Chemistry Advances, 4, 100565. https://doi.org/10.1016/j.focha.2023.100565

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INTERNATIONAL CONFERENCE PRESENTATIONS

1. Alam MS, Khan MMR, Islam MM, Hasan M and Sumida M. Artificial Breeding of the Indian Bullfrog (Hoplobatrachus tigerinus): A Case Study on Reproduction and Conservation. Poster presentation in the International Symposium "Frontiers in Amphibian Biology: Endangered Species Conservation and Genome Editing" (hosted by Institute for Amphibian Biology) in Hiroshima University, Hiroshima, Japan, 27-28 March 2014.

2. Alam MS, Islam MM, Khan MMR, Hasan M, Wanichanon, R. and Sumida M. Postmating isolation in six species of three genera (Hoplobatrachus, Euphlyctis and Fejervarya) from family Dicroglossidae (Anura), with special reference to spontaneous production of allotriploids. 7th World Congress of Herpetology, UBC, Vancouver, Canada, August 8-14, 2012.

3. Alam MS, Islam MM, Khan MMR, and Sumida M. Reproductive Isolating Mechanisms and Genetic Divergences in the Genus Hoplobatrachus (Anura, Dicroglossidae) Based on Crossing Experiments, Chromosomal and Histological Observations, and Allozyme and Mitochondrial Analyses. Joint Meeting of Ichthyologists and Herpetologists, 2011 by American Society of Ichthyologists and Herpetologists, Minneapolis, USA, July 6-11, 2011.

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