

BAU Research Groups

Group	Staff	Interests
Fish Reproduction and Genetical Research Group	Professor Dr. Md. Fazlul Awal Mollah, Professor Dr. Md. Samsul Alam, Dr. Md. Rafiqul Islam Sarder, and Dr. Md. Mukhlesur Rahman Khan	One of the most widely explored areas of research under the Department of Fisheries, Biology and Genetics is the reproductive physiology and breeding biology of both indigenous and exotic fish species. Major areas of research interest include: effect of environmental and nutritional factors on reproductive physiology, development of induced breeding techniques, especially of commercially important endangered fish species and effects of hormones on the reproductive physiology. We were the first in the country to be successful in developing induced breeding technologies for African catfish, <i>Clarias gariepinus</i> and native pangas (<i>Pangasius pangasius</i>). Very recently, we have developed facilities for cryopreservation of fish sperm. Experiments are going on to standardize the protocols for cryopreservation of the major aquaculture species including indigenous and exotic species.
Fish Disease and Health Management Research Group	Prof. Dr. Kirtunia Juran Chandra, Prof. Dr. Md. Bazlur Rashid Chowdhury, Prof. Dr. Gias Uddin Ahmed, Prof. Dr. Md. Mamnur Rashid and Dr. Md. Ali Reza Faruk.	Fish Disease Research in the Faculty of Fisheries was initially started in 1977 by Professor A.K.M. Aminul Haque and his graduate students. The research activities enhanced with the collaboration of the Institute of Aquaculture, especially when Professor Christina Sommerville visited the Faculty. Subsequent visits of Professor R.J. Roberts, Dr. R. Wootten, Dr. J.F. Turnbull and Dr. H. Roger helped to strengthen fish disease research in the Faculty. The group focuses on the impact assessment, diagnosis, health management and control of fish and shellfish diseases of Bangladesh aquaculture. Characterisation of pathogens is also an important area of the research group. Histopathology is routinely used as a diagnostic tool. Members of the Fish Disease Group were directly involved in the ODA-BAU Link Project and the recently completed SUFER Project. The Fish Disease laboratory under the Department of Aquaculture was established through the ODA-BAU Link project in 1993. It offers facilities for parasitological, bacteriological and histological research related to fish and shellfish diseases.
Aquaculture Nutrition and Feed Technology Research Group	Prof. Dr. Md. Arshad Hossain, Prof. Dr. Md. Rezaul Hasan, and Prof. Dr. Subhash Chandra Chakraborty	Research projects include evaluation of indigenous plant and animal protein sources as fishmeal substitutes, nutrient digestibility of feedstuffs, nutritional requirements of culturable species and formulation of low-cost diets. Projects in this group have covered areas such as: the development of low-cost feed for carps using different by-products of plant and animal origin, development of farm-made aquafeed for sustainable small-scale shrimp farming in south-western Bangladesh, post-harvest fish handling and preservation for a quality product, digestibility study on silver barb, research into compensatory growth of Nile tilapia and post harvest fish technology for good quality fish and fishery products. Through the ODA-BAU link project the research capabilities of the Aquaculture Nutrition and Feed Technology group have been increased. Under the Link programme, one specialized Aquaculture Nutrition laboratory was established.
Limnology, Water Quality & Environment Research Group	Prof. Md. Shahidur Rahman, Prof. Dr. Md. Abdul Wahab, Prof. Md. Idris Miah and Dr. Saleha Khan.	A newly formed group, but very active in carrying out research as well as attracting research funding. Members of the group have been actively involved in research in the areas of water quality and pond dynamics, production systems, periphyton-based production, small indigenous species, pond fertilization, and environmental impacts of shrimp farming. Present research includes prawn-tilapia polyculture in periphyton-based systems, promotion of Carp-SIS polyculture technology to the wider scale, pond-dyke culture systems (Pond Live), integrated pond-cage aquaculture, decentralized seed supply of self recruiting species, and artificial propagation and larval rearing of Sarpunti (<i>Puntius sarana</i>). This group collaborates with other research groups in the Faculty of Fisheries and those of other universities and GO-NGOs. Projects include: 'Mass culture of live food, <i>Brachionus</i> sp. for feeding fish fry'; 'Effects of periphyton on fish culture'; 'Mass culture of phytoplankton in inexpensive medium'; 'Culture of rotifers feeding with powdered dried <i>Chlorella</i> '; 'Effect of duckweed on production of fishes in mono and polyculture'; and 'Biology and management of harmful algae in ponds and lakes in Bangladesh to get sustainable fish production and better rural community health'.
Freshwater and Brackishwater Aquaculture and Live Food Culture Research Group	Professor Jahir Uddin Miah, Professor Dr. Mohsin Ali, Professor Dr. Ahsan Been Habib, Professor Dr. Monoranjan Das, Professor Dr. S. M. Rahmatullah, and Dr. Salam	The group is actively involved in research on freshwater, brackish water and live food culture for fish and shrimp larvae. Current research includes GIS modelling for finding potential sites for establishment of shrimp and fish farms considering biological, environmental, socio-economical and physical properties.
Openwater Fisheries Management Research Group	Prof. Dr Muhammad Shahidul Huq, Prof. Dr Md Mahafuzul Haque, Dr Zoarder Faruque Ahmed and Dr Nesar Ahmed.	Current projects include research into early development and ecology of fishes in estuarine and coastal waters, natural resource utilisation and environmental management in pangasiid catfish farm, fish biology and population dynamics of small indigenous species, stock assessment of freshwater fishes and socio-economic aspects of prawn culture.
Post harvest technology and product quality research group	Prof. Dr. Md. Nazrul Islam, Prof. Dr. Subhash Chandra Chakraborty, Prof. Dr. M. Kamal, Prof. Dr. A K M Nowsad Alam, and Prof. Dr. Md. Abul Mansur	A research group with interests in post harvest and product quality aspects, fishery products, fish processing, preservation and quality control, post-harvest biotechnology, protein and enzyme engineering of seafood and meat products, formulation and safety aspects of new foods from underutilized seafood species, and the biochemistry of fish processing and enzymology. Current research includes: development of surimi based value added products from underutilized marine fish species of Bangladesh, and development of a low cost solar fish drier. The group has also been involved in the implementation of HACCP and investigating the qualitative and quantitative spoilage of shrimp.
Aquatic Biodiversity and Indigenous Fish Conservation Research Group	Dr. Mostafa A R Hossain, Dr. M A Salam and Prof. Dr. Md. Abdul Wahab. Scientists from BFRI and faculties from Khulna University are also included in this group.	A very recently formed aquatic biodiversity research group, which works in collaboration with other research groups in the FoF and related organisations in Bangladesh. Through the initiative of the group, Aquatic Biodiversity as a full subject, has recently been introduced in graduate and postgraduate levels of the University. The group keeps close contact and collaboration with IUCN-Bangladesh, Biodiversity Research Group of Bangladesh, GEF, GBF, UNEP and many other organisations working to study and conserve aquatic biodiversity in Bangladesh. A special interest of the group is to study the present biodiversity status of small indigenous fish species (SIS) of Bangladesh.

