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**STUDY OF THREATENED, RARE-ENDANGERED AND EXTINCT FISH SPECIES AT SOME WETLAND AREAS OF BHALUKA REGION OF MYMENSINGH****M.Z.Alam**

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**ABSTRACT**

A study was carried out on wetland fish bio-diversity of Bhaluka region in Mymensingh. The area of wetland studied varied from 5-20 acre, flooding time 7-25 acre and 1-5 acre in dry period. The surrounding area boundaries are medium to high land. In the existing fish bio-diversity, 25 visible fish species were listed where 9 fish species were threatened, 5 rare and endangered and 3 extinct. Some fish species have been totally disappeared from the area. All local rice growing on the regions have been replaced by high yielding varieties. Large scale artificial fish cultivation is increasing for high profit. Bhaluka has a above hundreds of different categories of wetlands. So here a wide research on wetland fish bio-diversity is essential.

**Keywords:** Wetland, Threatened, Rare-endangered, Extinct, Fish..

**Introduction**

Wetlands are one of the world's most important natural resources. These areas of transition between land and water are among the most productive ecosystems in the world. In general, a wetland is an ecosystem where water is at or covering the surface of the ground for all or part of the year. Wetlands are such types lands waterlogged of a few centimeters for at least a few days per year. Wetlands are covered by shallow water all the time, or in certain seasons and land where the water table is close to earth surface. Wetlands in Bangladesh have great ecological, economic, commercial and socio-economic importance. They content very rich components of biodiversity of local, national and regional significance. Among the estimated 5,000 species of flowering plants and 1,500 of vertebrate species are judged to be dependent on wetlands for all or part of their life span. Wetlands also provided habitat for a variety of resident and migratory waterfowl, a significant number of endangered species of international interest, and a large number of commercially important ones. The inland capture fishery is based on the vast freshwater resources with some 270 species of fin and shell fish (Sattar and Islam, 2004). In our country about 1.3 million man made ponds and reservoirs providing a total water area of 146890 ha. Along the cost, an estimated 2532000 ha of land is tidally inundated and provide temporary nursery and feeding grounds for the fry and post larvae of various species of fin fish and prunes and is physically suited for brackish water aquaculture. From the coastline (480 km in length) a total of 200 species of freshwater fish belonging to 55 families have been recorded among them 10 species of exotic fishes are also included (Sattar and Islam, 2004). Minisatellite core sequences were used as single primers in polymerase chain reaction (PCR) to amplify genomic DNA in a way similar to the random amplified polymorphic DNA methodology. This technique, known as Directed Amplification of Minisatellite-region DNA, was applied in order to differentiate three neotropical fish species (*Brycon orbignyanus*, *B. microlepis* and *B. lundii*) and to detect possible genetic variations among samples of the threatened species, *B. lundii*, collected in two regions with distinct environmental conditions in the area of influence of a hydroelectric dam. The genetic variation observed between the two sampling regions of *B. lundii* was also high enough to suggest the presence of distinct stocks of this species along the same river basin (Wasko and Galetti, 2003). The efficiency of water use rises, this imbalance will reduce freshwater ecosystem services, increase the number of aquatic species facing extinction, and further fragment wetlands, rivers, deltas, and estuaries. Based on the scientific evidence currently available, it is conclude that: (1) the human population will grow faster than increases in the amount of accessible fresh water, per capita availability of fresh water will decrease in the coming century; (2) climate change will cause a general intensification of the earth's hydrological cycle in the next 100 years, with generally increased precipitation, evapotranspiration, and occurrence of storms, and significant changes in biogeochemical processes influencing water quality. Globally, 20% of freshwater fish species are threatened or extinct, and freshwater species make up 47% of all animals federally endangered in the USA. The growing demands on freshwater resources create an urgent need to link research with improved water management (Jackson *et al.*, 2001). The visible plant species of the nine wetland areas of Bhaluka were 20, fish species 27, bird species 9, floating plant species 7, weed species 7 and aquatic animal species 6 where rare and endangered species were also recorded. Some plant, fish, Bird and floating plant species have been