



# Importance of aquatic biodiversity and characteristics

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## DESCRIPTION

Biodiversity describes the richness and variety of existence on Earth. It is the maximum complicated and vital characteristic of our planet. The term biodiversity was coined by him in 1985. It is important in both natural and man-made ecosystems. It deals with natural diversity, the biosphere. This refers to the variability between plant, animal and microbial species. Biodiversity includes the number of different organisms in an ecosystem and their relative abundance. It also reflects the organization of the organism at various levels. Biodiversity is ecologically and economically important. They provide food, shelter, fuel, clothing, and many other resources. It also attracts financial benefits through tourism. Therefore, having a good knowledge of biodiversity is very important to live a sustainable life. Biodiversity essentially describes the change of life from genes to ecosystems. This includes their existence, genetic variation, environment, populations, and the ecosystems in which they reside, as well as other evolutionary developments that maintain system function, change, and adaptation. High levels of biodiversity are generally considered beneficial and desirable as they lead to greater stability and productivity in communities. This article examines why maintaining high levels of biodiversity at a particular location is essential for that community. Biodiversity is essential for maintaining ecosystem balance. It also supports human survival and survival of other species in the ecosystem. It also helps maintain high levels of productivity and human well-being. Species, ecosystems and the health of the planet all benefit when there is high variability at all levels of biodiversity. Expanding biodiversity provides a kind of insurance for the global environment. Biodiversity plays an important role in disasters. Aquatic biodiversity is of

great economic and aesthetic value and plays a major role in maintaining and supporting overall environmental health. Humans have long relied on aquatic resources for food, medicines, materials, and recreational and commercial purposes such as fishing and tourism. Therefore, strategies are needed to protect and preserve aquatic life in order to maintain natural balance and resource availability for generations. The human activity is wiping out species at an alarming rate. Aquatic organisms are more endangered than mammals and birds. Losses of this magnitude affect entire ecosystems, depriving them of valuable resources used to provide people with food, medicines and industrial materials. Runoff from agricultural and urban areas, introduction of alien species, and the creation of dams and water diversions have been identified as major challenges to fresh water environments. Over exploitation of aquatic organisms for various purposes is the greatest threat to the marine environment, so the need for the aquatic sustainable development has been identified by the defense Environmental Fund a top priority for the protection of marine biodiversity. Other threats to aquatic biodiversity encompass city improvement and resource-primarily based totally industries consisting of mining and forestry that spoil or lessen herbal habitats. Additionally, air and water pollution, sedimentation and erosion, and climate change threaten aquatic biodiversity and/or surface water and sediments. In addition to typical aquatic species, other microorganisms from soil habitats and effluents from residential and industrial pollution also cause degradation by microorganism's results. The main types of organisms in aquatic ecosystems are very small free-floating organisms called plankton, strong swimmers called nekton organisms called benthic organisms, and decomposers such as bacteria. Aquatic microbiology is the science.