



Types and various functions of aquatic microorganisms

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DESCRIPTION

Microorganisms include members of the plant kingdom, protozoa, bacteria and fungi. These creatures are radically different, only smaller in size. Most are invisible without a microscope, but some colonies can be seen with the naked eye.

Microorganisms are ubiquitous and can withstand extreme physical and chemical conditions. Many microorganisms play a fundamental role in aquatic ecosystems, capturing solar energy through photosynthesis and releasing nutrients stored in organic tissues through their role in decomposition. Microorganisms play an important role in pond farming.

It is of utmost importance to distinguish between microbial ecology and micro ecology. Microbial ecology refers to the interrelationships between microbial populations, communities, diversity, biomass and environmental impacts.

Beneficial microbes degrade pollutants, inhibit or kill harmful microbes through antagonism, purify water bodies, and achieve ecological balance in water, while occupying an important place in water and sediment ecology. Occupies a large number of aquatic microorganisms can infect or parasitize humans, and these pathogens and parasites cause significant morbidity and mortality worldwide. Most of these organisms are problematic when human or animal waste contaminates surface waters used for drinking, physical contact, or food preparation, but some occur naturally or Humans can be infected through other routes of transmission, including consumption of contaminated shellfish.

CONCLUSION

Aquatic microbial biotopes can be groundwater and/or surface water and sediments. Due to oligotrophicity (poor nutrients), groundwater (mineral springs, hot springs, groundwater) is dominated by sparse microflora represented by a few species with an almost complete absence of higher plants and animals. Surface waters such as streams, rivers, lakes, and seawater are home to a wide variety of flora and fauna. Microorganisms in these waters are a very diverse group. In addition to typical aquatic species, other microorganisms from soil habitats and effluents from residential and industrial pollution also occur. Sediment is a temporary habitat type. That is, most typically anoxic soil-water habitats where the process of anaerobic degradation by microorganisms results in the release of hydrogen sulfide and methane into the water. Anaerobic spoilage microbiota, cellulolytic bacteria, and anaerobic chemoautotrophs develop in the sediments. The main types of organisms in aquatic ecosystems are very small free-floating organisms called plankton, strong swimmers called nekton, and benthic organisms called benthic organisms, and decomposers such as bacteria. Aquatic microbiology is the science of microscopic organisms in freshwater or seawater systems. Aquatic microbiology can encompass all microorganisms, including microscopic plants and animals, but more generally the study of bacteria, viruses, fungi, and their relationships with other organisms in the aquatic environment.