Environment Conservation Challenges Threats in Conservation of Biodiversity

Edited by
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Chapter 21

STUDIES ON ECOLOGICAL AND COMMERCIAL IMPORTANCE OF CYANOBACTERIA (BLUE GREEN ALGAE)

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ABSTRACT

Algae are using the process of photosynthesis to produce organic food molecules from carbon dioxide and water, absorbing energy from the sun. Algae, unlike land plants, are at the bottom of the chain, and also because plants are rare in the oceans, nearly all marine life, including whales, seals, fishes, turtles, octopuses, sea stars, and worms, need on algae to function. Algae produce oxygen as a by-product of photosynthesis in addition to producing organic molecules. Algae produce 30 to 50 percent of the net global oxygen available for respiration through humans and other terrestrial animals. Cyanobacteria (Cyanophyta), also called as blue green algae, are prokaryotes that exist as free-living, epiphytic, symbiotic, or parasitic plants in a range of environments. They have been at the beginning of the aquatic food chain, and their photosynthetic activity serves to aerate the habitat as just a reason, they are significantly vital in aquaculture. Single cell proteins have been found in Spirulina and Nostoc commune, both of which are edible. Nitrogen fixing forms (Anabaena, Nostoc, etc.) increase the nitrogen content of the habitat and supply nitrates in symbiotic relationships where they enhance the nutritive quality of the host plant, which could be used as green manure, fodder, and fish feed.

KEYWORDS: Environmental Prokaryotes, Blue-green algae (BGA), Single–cell proteins (SCP), Bio-fertilizers, Growth hormones, Algal blooms.

INTRODUCTION

Cyanobacteria (CB), commonly known as blue-green algae (BGA), are photosynthetic prokaryotes which have been around for 3.5 billion years and are among the oldest living forms on the earth.