

Environment Conservation Challenges Threats in Conservation of Biodiversity

Edited by

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- 13 BIODIVERSITY: A FUTURE REAL WEALTH OF NATION 90-95
Mr. Sandipan Babasaheb Jige
- 14 MICROALGAL GREEN AND CLEAN APPROACH TO 96-104
MITIGATE WATER POLLUTION
Km. Aradhana And Mukesh Kumar
- 15 BIODIVERSITY-MEANING, DIFFERENT LEVELS, 105-112
IMPORTANCE, AND ITS CONSERVATION
Satya Raj Singh
- 16 BACTERIAL CONTAMINATION IN GROUND WATER: A 113-119
REVIEW
Prity Mall¹ And Anil K Dwivedi²
- 17 LEGAL REGULATION OF BIO DIVERSITY 120-126
Dr.Chetana.S.B.
- 18 GLOBAL WARMING AND CLIMATE CHANGE IN 127-134
REFERENCE TO INDIAN SCENARIO
Arushi Aren And Mukesh Kumar
- 19 GROWTH OF INDUSTRIES WITH RESPECT TO 135-141
SUSTAINABLE DEVELOPMENT
Ashwini Namdeo Nevase
- 20 EFFECT OF ENVIRONMENTAL STRESS ON SEED 142-150
GERMINATION AND SEEDLING GROWTH OF SORGHUM
(SORGHUM VULGAR L. CV CSV
Dr Tirukovela Srinivas
- 21 STUDIES ON ECOLOGICAL AND COMMERCIAL 151-158
IMPORTANCE OF CYANOBACTERIA (BLUE GREEN ALGAE)
Dr. S.Vijaya
- 22 RELATION OF CLIMATE CHANGE WITH DISEASES 159-164
Dr Rajesh Sudhakar Wakchaure
- 23 CULTIVATION PRACTICES OF AEGLE MARMELOS 165-172
(BILVAPATRA) & ITS PERSPECTIVES IN AGRO-FORESTRY
OF SEMI-ARID ZONES FOR SUSTAINABLE DEVELOPMENT
Dr. Prakash. S. R.
- 24 STUDIES ON THE DIVERSITY OF ALGAL FLORA 173-181
ASSOCIATED WITH LOWER MANAIR DAM (LMD) AND
KAKATIYA CANAL, KARIMNAGAR DISTRICT,
TELANGANA STATE
Dr. Uppu Anitha Devi
- 25 EFFICACY OF ABIOTIC STRESS ON THE VEGETABLE CROP 182-190
PRODUCTION
Nishtha Srivastava

Chapter

21

**STUDIES ON ECOLOGICAL AND COMMERCIAL
IMPORTANCE OF CYANOBACTERIA
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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.