



DOCUMENTATION OF THE EFFECT OF ENVIRONMENTAL CHANGES ON AQUATIC ECOSYSTEM

M. Uma, Department of Biochemistry, Prince Shri Venkateshwara Arts and Science College, Gowrivakkam, Chennai, Tamil Nadu.

Email: umabaskar69@gmail.com

K. M. Srinandhinidevi, Department of Zoology, Quaid-e-Millath Government College for Women (Autonomous), Chennai, Tamil Nadu.

Email: kmbnandini@yahoo.com

S.Viveka, Department of Zoology, Sethupathy Government Arts College, Achunthan vayal, Ramanathapuram, Tamil Nadu.

Email: drsreeviveka@gmail.com

L. Malleswara Rao, Department of Physics, SRI Y N College (A), Narsapur, Andhra Pradesh

Email: malleshlync2022@gmail.com

S. Chinnadurai, Department of Microbiology, Excel College for Commerce and Science, Komarapalayam, Namakkal, Tamil Nadu.

Email: drchinnaduraiphd@gmail.com

N. Bhuvana, Department of Chemistry, Jeppiaar Institute of Technology, Chennai, Tamil Nadu.

Email: bhuvana_jerin@yahoo.com

Abstract

The physical and biological properties of coastal systems, as well as the structure and function of their ecosystems, will be modified as a result of the consequences of higher atmospheric CO₂ concentrations, such as changes in ocean chemistry. Consequently, coastal nations are losing marine life, fish stocks, and coastlines. Coral reefs, which are extremely sensitive to changes in sea surface temperature, are among the most biologically diverse ecosystems on Earth. Most coral reefs are at risk of being destroyed by a 2°C temperature rise, which is associated with CO₂ concentrations of 500 ppm. As the ocean becomes more acidic due to absorbed CO₂ from the Earth's atmosphere, it poses a threat to living reefs, which could eventually be replaced by seaweed-dominated mounds of rubble as temperatures continue to rise. The global biosphere faces an unprecedented challenge from these impacts, which will compound the strain caused by local anthropogenic effects. While everyone on the planet will feel the effects, certain places will feel them more keenly than others.

Keywords: Physical and biological properties of ecosystem and coral reefs

