Journal of Research in Biology

An International Scientific Research Journal

ISSN No: Print: 2231 –6280; Online: 2231- 6299

Appraisal of phytoplankton and macrophytic composition in Tungabhadra river ecosystem, Harihar, Karnataka

Authors:
Suresh Basavarajappa and Suresh Sadashivappa

Institution:
Department of Environmental Science and Engineering, Bapuji Institute of Engineering and Technology, Davangere-577004.

Corresponding author:
Suresh Basavarajappa

ABSTRACT:

Aquatic pollution is harmful both to human and river ecosystem health. Phytoplankton, the most important producers in the food chain of the natural water body, plays a determining role in biological productivity and water quality of the aquatic system. It also acts as a sensitive biomonitor of aquatic ecosystem. Phytoplankton can play a significant role in the control of environmental quality. Macrophytes represented a significant biotype of the aquatic ecosystem and trophic level of the food chain from aquatic to the terrestrial life. Aquatic macrophytes are of utmost ecological and economic importance and they contribute significantly to the productivity of an aquatic ecosystem. This research deals with a preliminary survey on seasonal changes that occur in phytoplankton and it's macrophytic composition from December 2013 to July 2014. It was observed that total of 37 phytoplankton species were collected using plankton net from lotic ecosystem, which includes, Chlorophyceae being represented by 14 species, Bacillariophyceae by 9 species, Cyanophyceae by 8 species, Euglenophyceae by 6 species and a collection of 8 macrophytic species were recorded from different stations out of which *Ceratophyllum* was the sole species present at all the stations. The algae plays a prominent role as pollution indicator owing to their high range of tolerance capacity against the polluted water discharged from city municipality domestic sewage and industrial activities.

Keywords:

Phytoplankton, Macrophytes, Tungabhadra river, *Ceratophyllum.*

Journal of Research in Biology