Theme 7: Lakes, rivers, estuaries: water quality, biotic resources, sustainable management

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FRESH WATER ALGAL RESOURCES OF SUVARNAVATHI RIVER, KOLLEGAL, KARNATAKA

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Algae are very important as sources of food and serve as an early step in the food chain of larger aquatic animals, especially fish. Systematic studies on the fresh water algal flora of Suvarnvathi River are scanty. The paper deals with an ecological study with special reference to phytoplankton component of river Suvarnvathi in Kollegal taluk undertaken from June 2008 to May 2009.The algal community of river was represented by five algal groups viz Cyanophyceae, Chlorophyceae, Euglenophyceae, Bacillariophyceae and Desmids. Out of 52 algal species, 13 belonging to Cyanophyceae, Chlorophyceae, 10 species of Euglenophyceae, 9 species of Bacillariophyceae and 7 species of Desmids were recorded from different sites of the river. Phytoplankton population showed a positive correlation with pH, Alkanity, Phosphate and Nitrate and negative correlation with Temperature and Chloride. Many of the algal species of the total 52 Species reported, were from the river. *Aulosira Microcystis, Chlorella, Pediastrum, Euglena, Cyclotella, Navicula, Nitzschia* were recognized as pollution indicators. The main sources of the river were discharge of municipal and industrial water, human excreta, agricultural run off and burning of crops. Diversity of algae serves as an important tool in detecting the quality of water bodies.

Keywords: Algae, River, Suvarnvathi