

**M.S.27. GOPINATHAN, C.P – Studies on the Phytoplankton  
in the Estuarine and Marine Environments – 1983 –  
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This is a study on phytoplankton and productivity in various ecosystems such as estuary, inshore and oceanic environments and some special ecosystems such as prawn culture fields, mangroves, mud banks and Andaman Sea. The thesis also embodies the results of culture studies based on six different media carried out for mass production in hatchery operations. The toxicity of phytoplankton towards six hydrocarbons has been studied. The general level of productivity of the Exclusive Economic Zone of India comprising an area of 2 million sq. km. has been computed and the potential yield of harvestable resources from this area has been worked out based on phytoplankton production. The annual production for the entire EEZ has been computed at 283 million tonnes of carbon equivalent to 12000 million tonnes in wet weight. The estimate of the potential yield of fish accordingly is about 5 million tonnes.

A taxonomic account of 109 species of littoral diatoms and 67 species of dinoflagellates along with their occurrence and distribution has been included. Of these 49 species of diatoms and 8 species of dinoflagellates are found to be new distributional records for the Indian Seas.