

ISSN 0971-0167



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ICAR

मत्स्य प्रौद्योगिकी समाचार Fish Technology Newsletter

खंड/Vol. XXIII सं /No. 1 जनवरी January / मार्च March, 2012



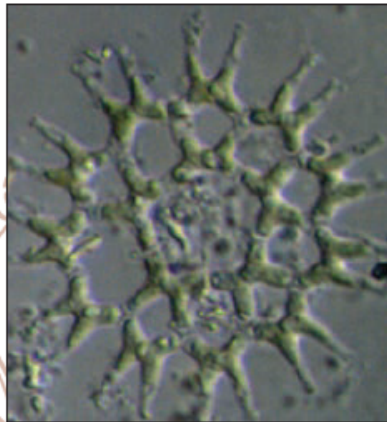
Occurrence of Freshwater Green Algae in Coastal Waters off Cochin During South West Monsoon Season

Phytoplankton variability in space and time is an important feature of marine environment. The occurrence and abundance of phytoplankton show great variations spatially and temporally. These changes are of great importance to all organisms which directly or indirectly rely on phytoplankton for food. Occurrence of freshwater species is a common phenomenon during monsoon season as mixing of freshwater and saline water occurs. The presence of two such phytoplankton species in coastal waters off Cochin is found.

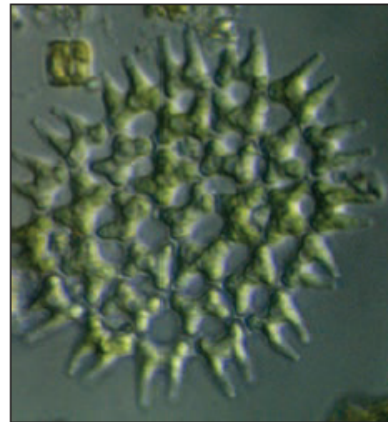
Phytoplankton samples collected during 2010 to 2011 (two years) from north and south of the coastal waters of Cochin estuary showed the presence of two freshwater green algae *Pediastrum* and *Senedesmus* during south west

monsoon season. *Pediastrum* species is observed only from the southern side of estuary whereas *Senedesmus* species from either sides at the same time. Both belong to the order Chlorococcales. *Pediastrum* belongs to the family Hydrodictyaceae and *Senedesmus* to Senedesmaceae. The numerical abundance ranged from 8.60×10^2 to 4.20×10^5 cells/Litre for *Pediastrum* species and 1.40×10^2 to 4.50×10^5 cells/Litre for *Senedesmus* species. The occurrence of these two phytoplankton species has not been observed during other seasons.

The presence of these freshwater species in the coastal waters substantiates its adaptation to survive in the marine conditions where salinity is greater than 30psu during monsoon season.



Pediastrum species



Senedesmus species



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