

This alga agrees with the described species in all the characteristic features.

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OCCURRENCE OF A CLADOCERAN SWARM IN THE LOWER STRETCH OF HOOGLHY ESTUARY, WEST BENGAL, INDIA

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CLADOCERANS are important groups of zooplankton which are useful as indicator species¹. Incidence of a cladocera *Evadne tergestina* Claus with reference to prevailing hydrographical parameters was studied in the lower stretch of Hooghly estuary. Surface zooplankton samples were collected fortnightly at forenoon hours during high tide from a selected station situated in the northern part of the Hooghly estuary funnel from March 1980 to February 1981. Measured quantities of surface water were filtered through a conical net (0.25 m diameter and 0.0695 mm aperture) and preserved in 4% buffered formaldehyde in seawater. In the laboratory, aliquot samples were taken in a Sedgewick Rafter plankton counting cell under a compound microscope for different numerical analyses. Water samples were also collected to determine various hydrological parameters adopting the methods outlined by Strickland and Parsons².

Cladocerans were more common during high saline period and were absent in the estuary during monsoon period (July to October) with the water temperature and salinity of 29.7° to 31.1°C and 1.66

to 6.94‰ respectively. They showed discontinuity in their temporal distribution in very small numbers, bursting into blooms (185 no./m³) in June 1980 with the water temperature 31 to 31.5°C, salinity 15.79 to 24.97‰, dissolved oxygen 2.6 to 2.8 ml/l and pH 8.2. The increased turbidity during monsoon might induce the total absence of cladocera when the density of the green algae and the cladoceran food became very poor in turbid waters³. Cladoceran abundance in the plankton off Calicut was recorded when the temperature and salinity ranged⁴ respectively between 24.4° to 26.5°C and 30.5 to 33.3‰. In the Cochin region, George⁵ observed *Evadne* sp in large numbers in the plankton from July to September, when the salinity was low. Selvakumar⁶ observed a direct relationship of cladoceran swarms with mackerel fishery along the west coast of India. Pillai and Pillai⁷ observed that the distribution of *E. tergestina* was more or less the same throughout the year with their peak coinciding with the post-monsoon months (September to October). Nair *et al*⁸ recorded *Evadne* sp and *Diaphanosoma* sp from Kadinamkulum backwaters with the maximum number in February and May. The reason for such sudden swarming of cladocerans is attributed to their capacity to proliferate by parthenogenesis⁹.

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