

M.S.56. ANVAR BATCHA, S.M.—Studies on bottom fauna of north Vembanad lake—1985—Dr. R. Damodaran

Investigation was carried out to study the ecology and abundance of bottom fauna from Cochin barmouth to Vaikam Jetty area in 18 stations, in the northern part of the Vembanad lake.

The studies on both surface and bottom water temperatures had indicated a biomodel type of oscillation, to a greater extent controlled by the south west and north east monsoons.

Among the hydrographical parameters studied, salinity was found to be the most fluctuating environmental factor.

Regarding dissolved oxygen content of the north Vembanad lake, unlike temperature and salinity, in general high values were associated with south west monsoon period.

As far as the sediment is concerned, sand is the dominating component in

all the stations with an admixture of silt and clay.

The organic matter content showed seasonal variations, along with the physical nature of the sediments.

The bottom fauna was studied in detail with its distribution and composition, numerical abundance, species diversity, biomass and its relationship to hydrography and sediment.

For the region as a whole *P. polybranchiata* was found to be the single species recorded in all the stations in large numbers.

The crustacea was mainly represented by amphipods, isopods, tenaids and decapods.

The major forms of molluscan fauna represented were *Modiolus undulatus* near the barmouth region, *Nuculana mauritiana* in the mid-reaches and *Villorita cyprinoides* var *cochinensis* in the upper reaches of the north Vembanad lake.

The other groups were represented by Coelenterates, nematodes, nemertines and Pisces.

A distinct pattern of distribution of bottom fauna was observed during the present investigation.

The maximum number of bottom fauna were observed in the pre-monsoon season followed by the Post-monsoon season.

Regarding biomass values, the standing crop of the bottom fauna was high in the barmouth region.