

**D-03 : DIURNAL, VERTICAL AND SEASONAL DISTRIBUTION
PATTERNS OF CYCLOPID COPEPODS IN KOTMALE RESERVOIR**

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Vertical distribution of Cyclopoid Copepods was studied in Kotmale reservoir, in order to determine the variations in Zooplankton at different depths. Their seasonal distribution and migratory patterns were also studied.

Vertical & horizontal sampling were done at monthly intervals from August 1990 to December 1991. Two diurnal samplings were done; one when water level was low, & the other when it was high.

Two cyclopoid species were identified as *Mesocyclops leukarti* & *Thermocyclops crassus*. Cyclopoid adults & their immature stages were abundant at all depths.

However their population density decreased with increasing depth. Highest density was found within the range of surface to ten meters.

They showed striking diurnal migration which was independent of the intensity of sunlight. The migratory pattern of adults & young were different.

The seasonal variation observed did not show the same pattern during both sampling years. During the latter part of the study (October to December) a strong decrease in Cyclopid population was observed which correlated with the collapse of green algae population and the appearance of a bloom caused by Cyanobacterium blue green organism *Microcystis* species.