

**D-05 : POPULATION STRUCTURE AND POLYMORPHISM OF
Ceriodaphnia cornuta OF KOTMALE RESERVOIR**

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A study of zooplankton was carried out in Kotmale reservoir, from August 1990 to December 1991. Vertical and horizontal sampling was done once a month near the dam of the reservoir, between 1100 h 1200 h. A closing type of net with mesh size of 50 μ m was used for collection of zoo plankton.

Ceriodaphnia cornuta is a cosmopolitan species and is the dominant form in the cladoceran community for Kotmale reservoir. It represented 98% of the whole population at certain months. Its population structure comprised of nymphs & adults throughout the year.

C. cornuta showed polymorphism. Two morphological forms were identified; one had a comparatively smaller body (size range of 0.30 - 0.45 mm) with spines on the head region (horned form) & the other with a larger body (size range of 0.42 - 0.84 mm) and without spines (unhorned form). Both morphological forms showed variation in abundance which showed different patterns during the two years.

The spined form predominated in the epilimnetic waters where fish predation was high & the other form was found at all depths. Existence of such morphological forms may be an adaptation to minimize selective predation by fish.