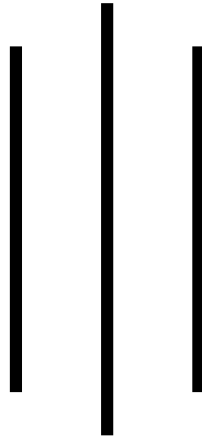
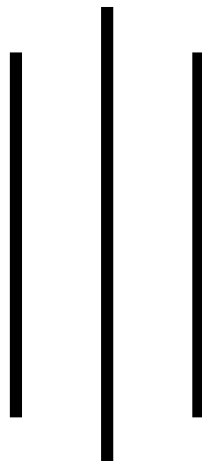


**A STUDY ON THE EFFECTS OF SOME
PHYSICO-CHEMICAL PARAMETERS ON THE
ABUNDANCE AND DISTRIBUTION OF
ZOOPLANKTONS OF A VILLAGE POND "DAUNA"**



SUBMITTED BY:

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A DISSERTATION SUBMITTED FOR THE PARTIAL FULFILLMENT OF
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ABSTRACT

The present study entitled "*A study on the effects of some Physico-Chemical parameters on the abundance and distribution of zooplanktons of a village pond Dauna*" was carried out from 3rd July 2002 to 18th December 2002. Variation in water colour, depth, nature of the day, temperature and transparency was noted in summer and winter seasons. The average pH of the pond water was 7.4(6.2-8.6), dissolve oxygen was 6.35ppm (4.3-8.4ppm) where as free CO₂ was 17ppm (4-30ppm). The total alkalinity recorded was 51ppm (33-69ppm) and total hardness was 44.5ppm (35-54ppm). The dissolved calcium varied from 7.5 to 16.4ppm and chlorides from 21 to 38ppm. Positive relationship of zooplankton population density was found with depth, transparency, air and water temperature, dissolved oxygen, pH, dissolved calcium and chlorides where as negative with free carbondioxide, total alkalinity and total hardness. A total of ten genera of zooplankton belonging to five taxonomic groups were found. The zooplankton composition of the pond was contributed by two genera of protozoa (Paramecium sps. and Vorticella sps.), two genera of cladocera (Daphnia sps. and Moina sps.), two of rotifera (Keretella sps. and Brachionus sps.), one ostracode (Cypris sps.) and three copepodes (Cyclopus sps., Diaptomus sps. and Nauplius sps.). The total density of zooplankton was 8006 no./lit with an average value of 667.16 no./lit. The maximum abundance (913 no./lit.) was counted in the month of July and minimum (412 no./lit.) was on 18th October 2002. Of five groups of zooplanktons, rotifera dominated other groups.

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