

## A STUDY OF THE PLANKTON AND BENTHOS OF EKOLE RIVER IN BAYELSA STATE, NIGERIA

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### ABSTRACT

A study was undertaken to determine the plankton and benthos of Ekole River in Bayelsa State of Nigeria. Surface water and sediment samples were collected in the dry (December-January) and wet (June –July) seasons between 2003 and 2004 for plankton and benthic analyses. The water temperature ranged from 27-33°C, pH 6.30-7.5, total suspended solids (T.S.S) 110-282 mg/L, Chloride 15.40-39.6 mg/l, dissolved oxygen 4.11-10.83 mg/l and conductivity 64.5-84.55µS/cm. The total plankton count ranged between  $267 \times 10^3$  and  $11830 \times 10^3$  / L. Forty three and forty seven species of phytoplankton belonging to five families were identified in the dry and rainy seasons respectively. The mean zooplankton population ranged from  $1954 \times 10^3$  / L in the dry to  $3479 \times 10^3$  / L in the wet season while the benthic organisms ranged from  $113 \times 10^3$  / L to  $152 \times 10^3$  / L in the rainy and dry seasons respectively. *Bacillariophyceae* dominated the phytoplankton while the rotifers dominated the zooplankton species. Some biological indicators of pollution: larval forms of *Chironomids*, *Odonatans* and *Ephemeropterans* were also identified in the river.

**Keywords:** Plankton, Benthos, Ekole River, Pollution indicators