ABSTRACT

Recent Limnological Changes and Their Implication on Fisheries in Lake Baringo, Kenya.

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Water samples for physico-chemical analysis for this study were collected monthly for five years between April 2008 and March 2013. Conductivity, temperature, dissolved oxygen and pH was measured in situ using a Surveyor II model hydrolab. Chlorophyll-a concentration was determined using a Genesys 10S Vis spectrophotomer. Nutrients were determined using standard methods and procedures. Analysis of Variance (ANOVA) was used to determine spatial and temporal variation in physico-chemical and biological factors. Principal component analysis (PCA) was performed to establish the correlation of the physico-chemical and biological parameters among sampling stations and to group stations with similar physico-chemical parameters. Both spatial and temporal significant variations ($P<0.05$) were detected in the concentrations of the nutrients measured during the study.

KEY WORD: Limnological changes, Lake Baringo, Fisheries, Kenya, Implications, Ecological impact, Water quality, Biodiversity, Climate change, Aquatic resources