

Planktonic Biomass and Physico-Chemical Parameters in Wadi Haneefah Stream, Riyadh, Saudi Arabia

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ABSTRACT

A quantitative and qualitative study of phytoplankton and zooplankton community and physico-chemical condition of water at two sites in Wadi Haneefah Stream was carried out on a monthly basis from November, 1993 to October, 1994. Water temperature fluctuated between (13.0°C - 40.0°C) with pH values (7.1-7.4). High concentrations (11.3 and 10.13 mg/l) of dissolved oxygen in two sites were recorded in April. The contents of chloride, carbonate, bicarbonate and sulphate were maximum in March-May.

Different phytoplanktonic genera present at the two sites belong to the families, Chlorophyceae, Cyanophyceae, Desmidiaceae and Bacillariophyceae. Bacillariophyceae was the dominating group throughout the study. These planktons were more prominent in summer and less in winter months. Zooplanktonic genera consisted mainly of protozoans, Rotifers and Crustaceans. These zooplanktons were prominent forming a peak in July and trough in January. The distribution of the generic composition of phyto-and-zooplankton was correlated with some of the physico-chemical changes in the environment.