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ABSTRACT

An experiment on Limnological study of spawning ground in the Halda River in relation to some physico-chemical characteristics of Estuary (Kalurghat), Khondokiakhal, Modunaghat and Sattarghat of Halda River in Bangladesh was carried out for six months. Sample was collected from four locations both for plankton and water quality parameters for the period of six months from April to September. The mean values of temperature were 29.97^0C, 29.7^0C, 29.72^0C and 29.63^0C in Estuary, Khondokiakhal, Modunaghat and Sattarghat respectively. The mean value of Transparency was found 24.42cm, 15.33cm, 29.46cm, and 28.83cm in Estuary, Khondokiakhal, Modunaghat and Sattarghat respectively. The mean value of dissolve oxygen found 6.75 mg/l, 6.53 mg/l, 6.87 mg/l, and 6.80 mg/l in Estuary, Khondokiakhal, Modunaghat and Sattarghat respectively. The mean value of pH 6.5, 5.68, 6.83, and 6.35 and the mean value of Alkalinity found 52.74, 52.70, 55.49, and 57.15 mg/l in Estuary, Khondokiakhal, Modunaghat and Sattarghat respectively. The number of phytoplankton genera was 20, 14, 19, and 20 and of 4, 4, 5, and 5 zooplankton genera in Estuary, Khondokiakhal, Modunaghat and Sattarghat respectively. A total number of 20 genera belonged to 5 divisions of phytoplankton was identified from Halda River. Division Bacillariophyceae had the highest number of species (11 species), followed by 3, 3, 3, and 1 species of Chlorophyceae, Cyanophyta, Dinophyceae and Pyrrophyta. The Zooplankton communities in Halda River in sixth month of sampling were composed of 5 genera of 3 divisions. Cladocera had the highest number of species (2), followed by the1, 2, 2 species of Copepoda, Cladocera, Rotifera. The number of phytoplankton in one liter was varied from 39 to 68, 15 to 44, 44 to 79 and 50 to 79 cell/liter in Estuary, Khondokiakhal, Modunaghat, Sattarghat respectively. The number of phytoplankton in one liter was varied from in, in and in. Water quality parameters were found to be poor in khondokiakhal and good in Sattarghat and Modunaghat.