

On Physico-Chemical Status of Agbabu Water, Oluwa River, Odigbo Local Government Area, Ondo State, Nigeria

Authors : Olaniyan Rotimi Francis

Abstract : Agbabu Water, Oluwa River is used for artisanal fishing, ferrying and domestic activities in Odigbo Local Government Area (OLGA), Ondo State. The river receives bitumen spills and domestic and agricultural wastes, which could adversely impact on the water quality and resident biota. In spite of anthropogenic activities, there is a dearth of information on the limnology and biota of the river. Extensive bitumen spills, as well as uncontrolled discharge of domestic wastes have pollution implications as they alter prevailing conditions and destroy the habitats of aquatic organisms. The aim of this study was to investigate the physico-chemical parameters of Agbabu Water in order to provide baseline information for effective management. Monthly water samples were collected on the surface of Agbabu water, Oluwa River, for a period of 6 months (June, 2024 to November, 2024). All physico-chemicals were collected and analyzed according to APHA (2005) standard methods. Results showed that temperature ranged between 26.0-32.0°C, transparency (1.0-8.0 m), alkalinity (14.0-25.0 mg/l), electrical conductivity (18-105 μ S/cm), dissolved oxygen (1.2-3.8 mg/l), sulphate (0.0 -4.0mg/l) and total dissolved solids (18-36). The parameters at the downstream (station A) accounted for the bulk of the highest values; there were, however, no significant differences between the stations at $P < 0.05$. The results obtained from the physico-chemical parameters agree with the limits set by both national and international bodies for drinking and fish growth. It was recommended that urgent checks and monitoring by relevant agencies, government representatives, public health practitioners, and community leaders are required.

Keywords : physico-chemical, water, Agbabu, River

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