

Abstract

Environmental gradients in physico-chemical properties and distance to human settlements at two wetlands (around Hyena and Nalogomon dams) in the Nairobi National Park were studied. Ordination showed that over 84% of the variation in both wetland waters and soils was accounted for by twelve parameters (physico-chemical properties and distance to settlements). In wetland waters, Cu and Mn contributed most to variation that was related to distance to nearest urban settlements. This means that the concentration of the two elements increased as distance to settlements decreased. Elements Cu and Mn are pollution indicators and their increased concentration during the wet season in wetlands close to urban areas could be due to run-off or storm waters from the settled areas finding its way into the wetland. Critically, P and Cu varied along the distance gradient, being highest closest to urban settlements. The ordination plots on the wetland soil/sediment show a clear gradient, that is, a distance to urban settlements gradient that separates the two wetland