

Abstract

This study was designed to investigate the effect of replacement of *Caridina nilotica* with *Arthrospira platensis* at four different levels: 10%, 20%, 50% and 100%, as T1, T2, T3 and T4 respectively on water quality parameters, monitored for 8 weeks in triplicate glass tanks with 300 fingerlings of *Oreochromis niloticus* fingerlings. No significant differences were found throughout the experimental period ($p > 0.05$). Temperature ranged from 27.880C to 28.020C, DO was 7.22 to 7.41mgll⁻¹, pH 7.473 to 7.561 and Total Ammonia and Nitrite 0.37-0.81 respectively. All were within the normal range for tilapia fingerlings which enabled them to grow significantly.