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LINEAR MORPHOMETRIC PHENOMENON OF *OREOCHROMIS NILOTICUS* IN POLLUTED LOCATION OF VAVUNIYA TANK, SRI LANKA

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Vavuniya tank is a perennial water body, which plays an important role in inland capture fisheries. This tank is extremely vulnerable to pollution, as it is located in the Vavuniya urban area. Biological Oxygen Demand (BOD_5) of Vavuniya tank was determined during wet and dry seasons from March 2013 to March 2014 in four locations with three replicates in order to define the polluted (3.80–4.50 ppm) and non-polluted (1.50–1.90 ppm) locations. Linear morphometrics and sex ratio of *Oreochromis niloticus* were analyzed in the polluted (n = 50) and non-polluted (n = 45) locations in various occasions separately. The mean values of total length, standard length, head length, eye diameter, snout length and depth of fish from polluted location were significantly (p<0.05) higher than that from non-polluted locations. In regression analysis, log standard lengths *vs.* all other length logarithms were plotted and graphical out-put showed positive linear relationship in both locations. However, two females in the polluted location showed relatively larger eye diameters (2.1 and 2.2 cm). Hence, this needs further investigations. Although the number of males was higher than that of females in the samples; it did not show any significant differences. Though the oil and grease contamination was very high in the polluted location (30±5 ppm), presence of *O.niloticus* indicated the resilience nature and showed higher linear morphometric phenomenon. However, undesirable kerosene odour in the fish reduced the revenue.

Keywords: Pollution, Linear morphometrics, Kerosene odour