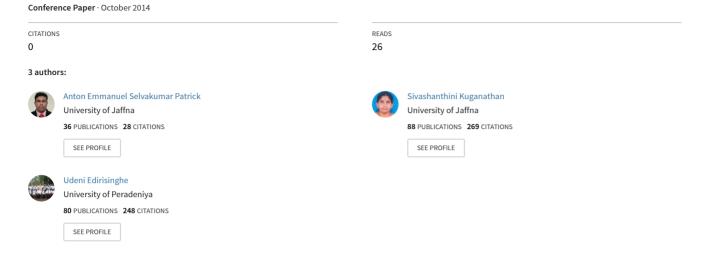
LINEAR MORPHOMETRIC PHENOMENON OF Oreochromis niloticus IN THE POLLUTED LOCATION OF THE VAVUNIYA TANK, SRI LANKA



Some of the authors of this publication are also working on these related projects:



Phylogeny and biogeography of Sri Lankan fishes referred to the subfamily Danioninae (Ostariophysi: Cyprinidae) and conservation of freshwater fishes of Sri Lanka. View project



INVESTIGATION OF INTERRELATIONSHIPS AMONG SOCIOECONOMIC, HYDRO CLIMATIC, AND FISHING PARAMETERS IN VICTORIA, SORABORA AND ULHITIYA RESERVOIRS AND THEIR IMPLICATIONS ON RESERVOIR FISHERIES MANAGEMENT View project

Abstract No: 87 (Poster)

Life Sciences

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

A.E.S. Patrick¹*, S. Kuganathan² and U. Edirisinghe³

Postgraduate Institute of Agriculture, University of Peradeniya, Sri Lanka
Department of Fisheries, Faculty of Science, University of Jaffna, Sri Lanka
Department of Animal Science, Faculty of Agriculture,
University of Peradeniya, Sri Lanka
*patrickvavuniyacampus@gmail.com

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 (BOD5) 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