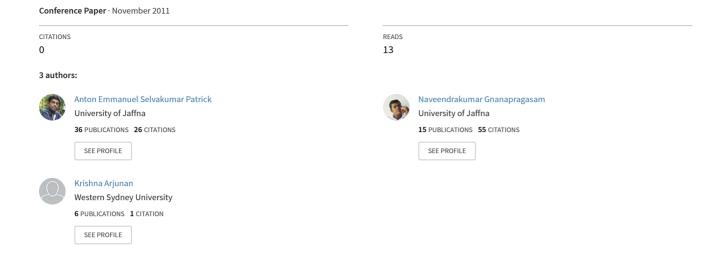
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Some Aspects of Linear Morphometrics and Sex Ratio of Tilapia sp. in Polluted and Non-polluted Location of the Vavuniya Tank

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The Vavuniya tank which is being a perennial water body located at the strategic location in Vavuniya urban area, plays the major role in inland capture fisheries of which are 99% of Tilapia sp. Anthropogenic oil and grease pollution causes kerosene like odour (KLO) in fish. The linear morphometrics and sex ratio were statistically analyzed in the polluted and non-polluted locations separately and this polluted level was determined by BOD, and oil and grease content. The mean values of Total Length (21.4 ± 2.3a), Standard Length (17.2 \pm 1.2^d), Head Length (5.3 \pm 0.3^g), Depth (7.9 \pm 0.5^p,), Snout Length (1.9 \pm 0.2°,) and Eye Diameter (1.2 \pm 0.2°,) of fishes collected from polluted location were significantly (p<0.05) higher than those of non-polluted location (Values 19.4 ± 1.6^{b} , 15.8 ± 1.3^{e} , 5.1 ± 0.5^{h} , 6.5 ± 0.6^{q} , 1.7 ± 0.3^{w} , 1.1 ± 0.1^{y}). When plotting the length-length relationship curve, i.e log Standard length vs. log TL /HL/D/SL/ED, showed positive linear relationship. Number of males in polluted locations was higher than female, though the mean values were not statistically significant. However few females in polluted location showed a greater eye diameter (2.2±0.1) and this should be window for future research. Although the values of oil and grease content (35±3 ppm), and BOD₅ (3.098-4.012 mg/L) are very high in the polluted location, some Tilapia sp. is well adapted and showed higher growth performance in the polluted location, undesirable KLO in the fish that reduce the market value, making fishermen in trouble.

Keywords: Tilapia sp., Linear morphometrics, Kerosene like odour

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