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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_5 and oil and grease content. The mean values of Total Length (21.4 ± 2.3^a), Standard Length (17.2 ± 1.2^d), Head Length (5.3 ± 0.3^g), Depth (7.9 ± 0.5^p,), Snout Length (1.9 ± 0.2^s,) and Eye Diameter (1.2 ± 0.2^x,) 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 BOD_5 (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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