

LENGTH-WEIGHT RELATIONSHIPS AND CONDITION FACTORS OF FIVE FRESHWATER FISH SPECIES IN ROSEIRES RESERVOIR, SUDAN

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ABSTRACT

This study describes the length-weight relationships (LWR) and condition factors of five fish species from 4 families of ecological and economic importance, found in Roseires reservoir, Sudan. A total of 2820 specimens were caught by using various mesh size of gill nets from May, 2010 to March, 2011. The slope (b) values obtained for the five fish species ranged between 2.029 for *Alestes baremose* and 2.973 for *Eutropius niloticus* and differed significantly ($p < 0.005$) from 3, which indicates that all of the fish species have negative allometric growth. The condition factors (K) of the fish species ranged from (0.7018 ± 0.1912) in *Hydrocynus froskalii* to (1.9505 ± 0.2293) in *Eutropius niloticus* and about 80% of these condition factors fall outside the range recommended as suitable for matured fresh water fish species in the tropics. This indicates that Roseires reservoir may be unfavorable to fishes due to sedimentation.

Keywords: Freshwater fish species, Roseires reservoir, length-weight relationship, Condition factor and allometric growth.