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Length-Weight and Length-Length Relationships of Oreochromis aureus in Relation to Body Size from Pakistan

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Abstract : In the present study, eighty three wild Oreochromis aureus of different body size ranging 5.3-14.6 cm in total length were collected from the River Chenab, District Muzzafer Garh, Pakistan to investigate the parameters of length –weight, length-length relationships and condition factor in relation to size. Each fish was measured and weighed on arrival at laboratory. Log transformed regressions were used to test the allometric growth. Length-weight relationship was found highly significant ($r = 0.964$; $P < 0.01$). The values of exponent " b" in Length–weight regression ($W=aLb$), deviated from 3, showing isometric growth ($b = 2.75$). Results for LLRs indicated that these are highly correlated ($P< 0.001$). Condition factor (K) found constant with increasing body weight, however, showed negative influence with increasing total length.

Keywords : Oreochromis aureus, weight-length relationship, condition factor, predictive equations
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