

Length-weight relationship and relative condition of a silver biddy *Gerres oblongus* (Pisces: Perciformes) from the Jaffna lagoon, Sri Lanka

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Abstract

Cultivation of *Gerres oblongus* is likely to be profitable because of the consumer demand. The values obtained for the mean weight by sex show that females were significantly ($P < 0.05$) larger than males. Covariance analysis for length-weight relationships of male and female fishes reveals that there was significant variation between male and female fishes ($P < 0.05$). The calculated length-weight relationships of $W = 0.01127 \times L^{2.958}$ and $W = 0.015319 \times L^{3.126}$, obtained for males and females respectively. The exponent value, $b = 2.958$ for males and $b = 3.126$ for females, not significant from 3 ($P > 0.05$) reflect an almost isometric growth in both instances. The relative condition of fish showed seasonal variation. The highest median values of average condition factor recorded from 175 to 225 mm total length clearly shows that *G. oblongus* would be in good condition if harvested at this total length range. Males, generally are in better condition than females. The low relative condition values in February to June indicate female *G. oblongus* spawn during February to June during which the breeding stock should be protected in order to maintain the sustainable exploitation of this species.

Author keywords

Covariance analysis; *Gerres oblongus*; Length-weight relationship; Relative condition; Silver-biddy; Spawning

Indexed keywords

Species Index: *Gerres oblongus*; Perciformes; Pisces