# Some biometric parameters of six selected fish species in Sri Lankan waters

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The objective of this study is to determine the Length Weight Relationship (LWR) and the Fulton's condition factor (K) in six commercially important fish species of Sri Lankan waters. Fish samples and their biometric data were collected from RV Dr. Fridtjof Nansen Ecosystem Survey in Sri Lankan waters from 24 June to 16 July, 2018. Six fish species belonging to two families were selected for this study to represent both demersal and pelagic species. Length–weight relationships were estimated using the equation $W = aL^b$ and the Fulton's condition factor (K) was estimated from the relationship $K=100W/L^3$ to assess the condition of the selected fish. According to the results *Lethrinus nebulosus, Lethrinus olivaceus, Decapterus macrosoma, Decapterus russelli* and *Caranx ignobilis* exhibited negative allometric growth while *Lethrinus mahsena* showed an isometric growth pattern. Considering the K values, *Lethrinus nebulosus* showed the highest K value (1.80 ± 0.37) thus it can be concluded that species is in an excellent condition in Sri Lankan waters. *Decapterus macrosoma* showed the lowest K value which was 1.07 ± 0.43. Thus it can be concluded that *Decapterus macrosoma* is in poor conditions in Sri Lankan waters. In addition, the resulted K value for *L. olivaceus, L. mahsena, D. russelli* and *C. ignobilis* were 1.32 ± 0.16, 1.44 ± 0.21, 1.14 ± 0.81 and 1.56 ± 0.42 respectively. The findings from this study are useful for comparison with the results of other studies undertaken during different seasons and at different localities to determine the status of the stocks as well as the ecosystem health.

Keywords: length-weight relationship, Fulton's condition factor, RV Dr. Fridtjof Nansen Ecosystem Survey, demersal, pelagic.

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