Growth, mortality, recruitment and yield-per-recruit of Strombus canarium Linnaeus, 1758 (Mesogastropoda: Strombidae) from the West Johor Straits, Malaysia.

ABSTRACT

Growth, mortality, recruitment and yield-per-recruit of Strombus canarium Linnaeus, 1758 were estimated using length-frequency data collected from Sungai Pulai Estuary, West Johor Straits, Peninsular Malaysia from January to December 2005. The relative growth was isometric type with the exponent ‘b’ of the length-weight relationship was very close to 3 (3.05 ± 0.04 S.E.). The von Bertalanffy growth function (V.B.G.F) estimates were: L = 69.91 mm shell length; K = 1.30 year. The growth performance index (φ’) was estimated as 3.803. Total mortality (Z) was computed as 2.42 year while the natural (M) and fishing (F) mortalities were estimated at 0.93 year and 1.49 year respectively. The recruitment pattern was continuous with one major peak within the months of June to August. The exploitation ratio (E = F/Z) was 0.61 revealed over exploited stock conditions in the study area.

Keyword: Growth; Mortality; Strombus canarium; Peninsular Malaysia.