

Population dynamics of silver biddy *Gerres setifer* (Pisces: Perciformes) in the Parangipettai waters, southeast coast of India

Sivashanthini, K. and Khan, S.A.

Centre of Advanced Study in Marine Biology, Annamalai University, Parangipettai 608 502, Tamil Nadu, India

Abstract

Growth parameters of *Gerres setifer* (Hamilton, 1822) in the Parangipettai waters were estimated using ELEFAN I programme. The asymptotic length (L_{∞}) and growth coefficient (K) were found to be respectively 174.05 mm and 1.19 year^{-1} respectively in male and 170.5 mm and 1.26 year^{-1} in female. The ' t_0 ' estimated by substituting the L_{∞} and K in Pauly's equation was -0.0817 in males and -0.0775 in females. Instantaneous rates of mortality (Z), natural mortality (M) and fishing mortality (F) in male were 2.53, 1.26 and 1.26 while in females the above values were 2.80, 1.32 and 1.48. The results of the present study showed that exploitation of *G. setifer* in the Parangipettai waters is below the optimum level indicating scope for slight increase in catch efforts.

Author keywords

Asymptotic length; *Gerres setifer*; Growth, mortality; Parangipettai

Indexed keywords

Species Index: *Gerres*; Perciformes; Pisces; *Setifer*