

Exploitation Rate of Greenback Mullet in a Heavily Extracted Urban Coastal Ecosystem

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Abstract

Jakarta Bay, with an area of approximately 7,000 km², has significant potential for fisheries and marine resources. Greenback mullet is one of the main catches in the coast and sea of Jakarta Bay. This study aimed to analyze the exploitation rate of greenback mullet for sustainable fisheries management. The study site was the Jakarta Bay area, with data collection points located in Tarumajaya District, Bekasi Regency, and Cilincing, North Jakarta. Fish data collection was conducted in six sampling sessions over three months (July, August, and September) in 2025 to record all fish catch data. Secondary data were obtained from several fisheries agencies, and statistical data were obtained from the Ministry of Maritime Affairs and Fisheries of the Republic of Indonesia (<https://portaldata.kkp.go.id/>) and fishbase.org. Data analysis used the Von Bertalanffy Growth Function to measure growth parameters. To measure mortality and exploitation rates using the Length-Converted Catch Curve method. The research results showed that the K value of the *Planiliza subviridis* species was relatively high, namely 0.69 per year (fast-growing category). Based on the exploitation rate value of 0.57, the greenback mullet stock is in a state of high utilization, exceeding the conservation threshold (0.5). The F/M ratio of 1.33 indicates that the fishing rate has surpassed the natural mortality rate, which can be an early signal of excessive fishing pressure on the population. Therefore, monitoring and adaptive management are needed to maintain stock sustainability.

Keywords

Exploitation, greenback mullet, Jakarta Bay, *Planiliza subviridis*.