

Effects of Effort and Water Quality on Productivity (CPUE) of Hampal (Hampala macrolepidota) Resources in Jatiluhur Dam, West Java

Authors : Ririn Marinasari, S. Pi

Abstract : Hampal (*Hampala macrolepidota*) is one of Citarum river indigenous fishes that still find in Jatiluhur dam. IUCN at 2013 said that hampal listed on redlist species category, this species was rare in Jatiluhur dam. This species more and more decreasing because change of habitats characteristic such as water quality and fishing effort. This study aims to determine and identify the influence of fishing effort and the quality of water on the productivity of fish resources hampal (*Hampala macrolepidota*) in Jatiluhur. The study was conducted from October to November 2013. Zones of research include lacustrine zone, transition and Riverin. Hampal fish productivity value computed by Hampal's CPUE values. The results showed that fish MSY hampal obtained from surplus production model of Schaefer is equal to 0.2045 tons / quarterly. In the years 2011-2012 have occurred over fishing in 2013 while still under fishing. Total catches have exceeded the MSY during the year 2011 and the third quarterly of 2012 tons of fish that exceed 0.2045 hampal. The rate of utilization of fish resources hampal is equal to 80% of MSY or equal to the allowable catch (Total Allowable Catch) for fish in Jatiluhur hampal based Schaefer surplus production theory. Fishing effort, water quality parameters such as DO, turbidity and negatively correlated sulfide as H₂S, while the temperature and pH positively correlated to productivity or unit catches fish hampal efforts in quarterly time series in the period 2011-2013. Shows that the higher fishing effort, DO, turbidity and sulfide in H₂S and diminishing the temperature and pH of the productivity decreases. Variables that affect the productivity of fishing hampal only H₂S only factor beta coefficient -0.834 which indicates a negative effect. It can be caused by H₂S levels are toxic and have already exceeded the quality standard, while for other water quality parameters are still below the maximum standards allowed in the waters. Result of the study can be a reference of fishing regulation for hampal conservation in Jatiluhur dam.

Keywords : effort, hampal, productivity, water quality

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