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Determination of the status of utilization and effort of Bonito(Auxis rochei) caught in the Bitung Waters North Sulawesi

John S. Kekenusa[1*], Sendy B. Rondonuwu[2], Marline S. Paendong[1]

[1]Department of Mathematics, Faculty of Mathematics and Natural Science, Sam Ratulangi University, Manado – Indonesia.

[2]Department of Biology, Faculty of Mathematics and Natural Science, Sam Ratulangi University, Manado – Indonesia.

Abstract : Bonito (*Auxis rochei*), needs to be managed well because even as a renewable natural resource, but can undergo depletion or extinction. One of the approach in the management of fish resources is by modeling. The analysis was performed aiming to get the best estimate for the surplus production model to determine the maximum sustainable yields (MSY), utilization level, and effort level of bonito. The data of catch and fishing effort bonito collected from the Marine and Fisheries Service of the Bitung City and the North Sulawesi Province.

Best Surplus Production Model, which is used to assess the potential of bonito is *Schaefer Model*. Optimal effort (E_{MSY}) of 16,205 trips per year, with catches of optimal C_{MSY} 9,577.214 tons per year. The effort level for 2005 is 95.86%, which shows the inefficiency of effort, the utilization level of 114.46%, showing occur overfishing.

Keywords : *Bonito, Surplus Production Model, Maximum Sustainable Yield, Bitung.*

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