ABSTRACT

YUSRIZAL. Comparative Use of Cod-end Mesh Size On Bottom Trawl in Tanjung Kerawang Waters. Under direction of SULAEMAN MARTASUGANDA and DARMAWAN

The research was conducted to compare catch-selectivity of cod-end with different mesh size. The research had implemented experimental fishing method and outfitted the cod-end with specially designed net-cover. The experimental trawl net was designed to have replaceable cod-end whereas the wings and body would remain the same. There were three different bags used in the research: 1 inch, 2 inch and 3 inch. Each bag was deployed and used in fishing operation three times. Data collected through enumerated and measured fish biometrics were caught both in the bag (cod-end) and in the net-cover. This research was conducted in two phases, a preliminary study which was conducted in August 2010, and then the main research in May 2011 on board of the Motor Boat Madidihang, a training fishing boat owned by the Ministry of Marine Affairs and Fisheries. The experimental fishing was conducted in the Cape Kerawang, West Java. The data was analyzed by comparing composition of the catch, diversity analysis (ANOVA) and analysis of selectivity of the catch. Main target fish observed in this study is threadfin bream (*Nemipterus virgatus*), sulphur goatfish (*Upeneus sulphureus*) and yellow striped goatfish (*Upeneus vitatus*). Results shows that after analyzed the data further using the least significant difference (LSD) formula, it became apparent that the usage of 2 inch and 3 inch mesh sizes gave significant effect to the escapement level of threadfin bream, sulphur goatfish and yellow striped goatfish. Therefore the research concluded that the environmental-friendly size for the cod-end in a trawl should be at or greater than 2 inch.

Keywords: bottom trawl, mesh size codend, selectivity, net cover, Kerawang waters