Productivity of Fishing Tuna Sirip Yellow (Thunnus Alabacares) Using Ulur Pances in Luwu Bay Water

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Abstract- Bay is a waters region that has high potential for yellowfin tuna (Thunnus albacares) because it is a migratory route. This encourages fishermen to install new FADs so that the number of FADs increases. So it is necessary to do research on "stretch fishing productivity for catching Midlun fish (Thunnus albacares) using FADs in the waters of the luwu bone district. Data used is data catch per fishing effort on each ship. Theproductivity of catching yellow fin tuna (Thunnus albacares) highestship 1 is in the range of 0.72-0.82 kg / minute with a total frequency of 216 times and the highest productivity of fishing in ship 2 is in the range 0.72-0.82 kg / minute with a total frequency of 154 times .

Index Terms- produktivitas, madidihang, handline

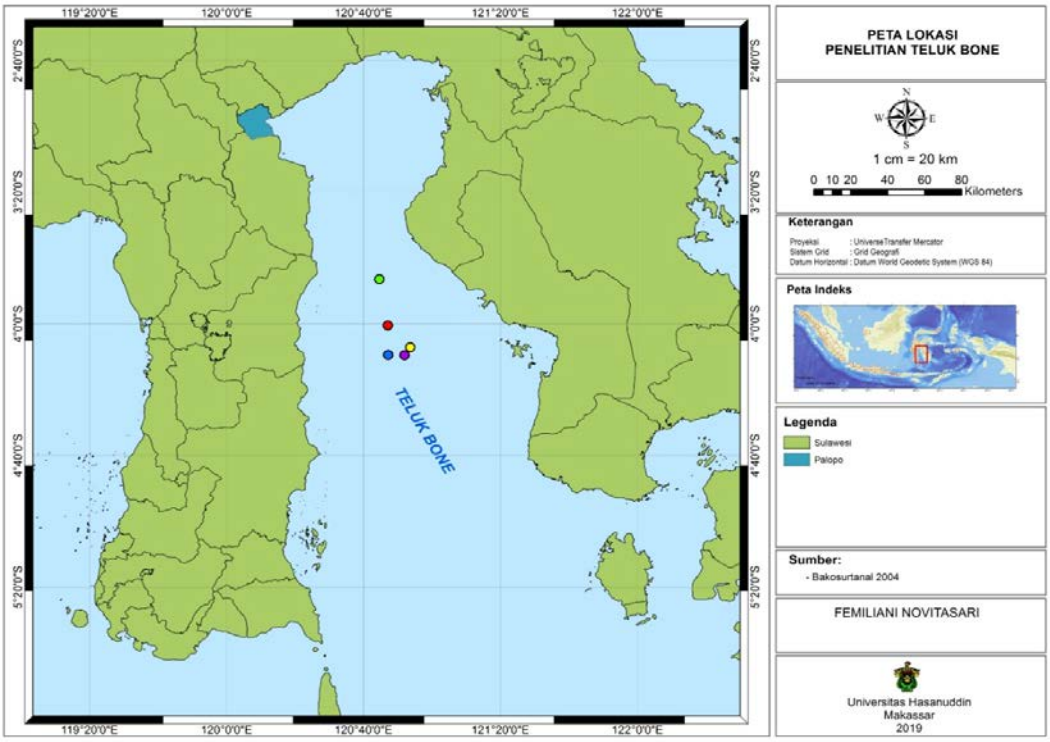
I. INTRODUCTION

Bone bay is a waters region that has a high potential for yellowfin tuna (*Thunnus albacares*) because it is a migratory pathway. Assets in the form of abundant natural wealth have the potential to become an economic source for the community. One of the efforts of the community to use it is by conducting capture fisheries. One of the dominant fishing gears that are operated on bone bay is stretch fishing rods. Retractable fishing is one of the people's fisheries business which has simple construction and simple and easy operation. This causes stretching rods to be one of the dominant fishing tools that are operated and uses FADs as a fishing aid, as an effort to maximize their catch (Jumzurizal, 2012). Rumpon is a tool for fish collectors that uses various forms and types of binding / attractors from solid objects, which function to lure fish to gather, which is used to improve the efficiency and effectiveness of fishing operations (KKP 2014).

The increase in production is determined by the fishing effort and also by the technology used. The use of FADs as a tool for catching *Thunnus albacares* in bone bay the value can increase the productivity of the catch. This encourages fishermen to install new FADs so that the number of FADs increases. Seeing the role of FADs as a tool for catching stretch fishing rods. So it is necessary to do research on "the productivity of stretching fishing for catching Midlunfish (Thunnus albacares) by using FADs in the bay waters of Luwu District.

II. MATERIALS AND METHODS

Description of the location of the study. This research was carried out in the Bone Bay of Luwu District, Larompong Subdistrict South Bone Pute Village (Figure 1), from September to November 2018. Data was collected by following fishing operations in 2 units of fishing rods and conducting interviews with fishermen. The data taken is the amount of production (tail) of yellow fin tuna *(Thunnus albacares)* and the length of time the fishing is carried out in FADs.



Picture 1 . Location of capture area

Figure 2. Fishing location inFADs

Productivitycatching area. The data of catch and fishing time obtained are then analyzed using the following equation:

$$Prd = \frac{C}{T}$$

Note:
Prd: capture productivity
C: Catch (Kg)
T: Effective time of processing (Minutes)

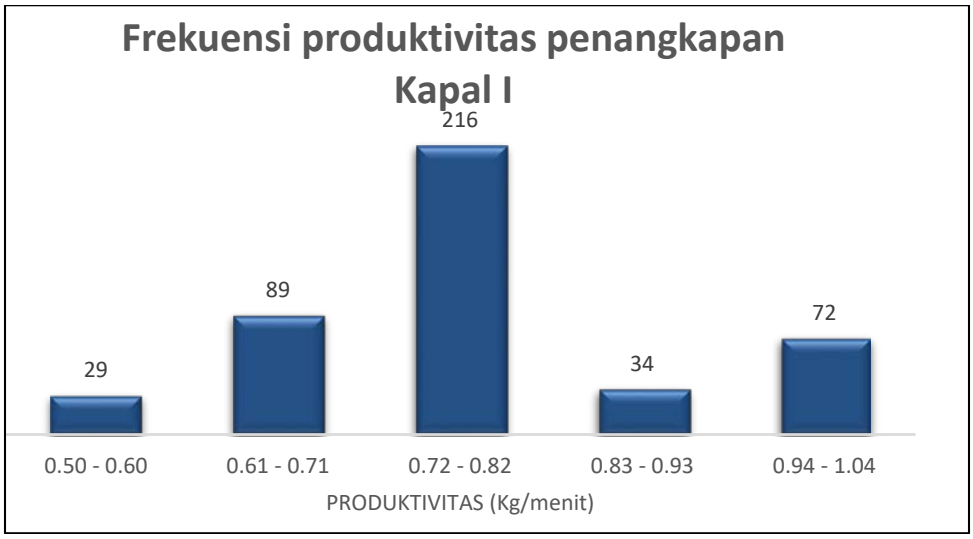
The kruskal-waliis test is conducted to determine the difference in productivity on each ship by following the hypothesis:

Determining the hypothesis:
H0: There is a productivity difference in each vessel
H1: there is no difference in productivity on every ship
decision:
Value significance> significance level (α = 0.05), then H0 is accepted
significance value <significance level (α = 0.05), then H0 is not accepted

III. RESULTS

***Productivity fishing vessel stretching* first.**

Catching productivity is a measure of the production capability of a type of fishing gear. The productivity of catching yellow fin tuna (*hunnus alabacares)* in FADs on ship I showed an uneven graph. The structure of the retaining productivity value found in the first vessel is in the range of 0.50 - 1.04 kg / minute. With a total overall productivity of 342.8 kg / minute and a total frequency of 440 times. From the graph, it can be seen that the highest productivity is in the range of 0.72-0.82 kg / minute with the total frequency of 216 times the lowest productivity in the range of 0.50 - 0.60 kg / minute with a frequency of 29 times.



Picture 1 . Productivity of fishing rods on ships

***Productivity fishing rods Ship II* .**

The productivity of catching yellow fin tuna (*hunnus alabacares)* in FADs on ship I showed an uneven graph. The structure of the retaining productivity value found in the first vessel is in the range of 0.50 - 1.04 kg / minute. With a total overall productivity of 202.43 kg / minute and a total frequency of 440 times. From the graph it can be seen that the highest productivity is in the range of 0.72-0.82 kg / minute with a total frequency of 154 times while the lowest productivity is in the range of 0.83-0.93 kg / minute with a frequency of 3 times.

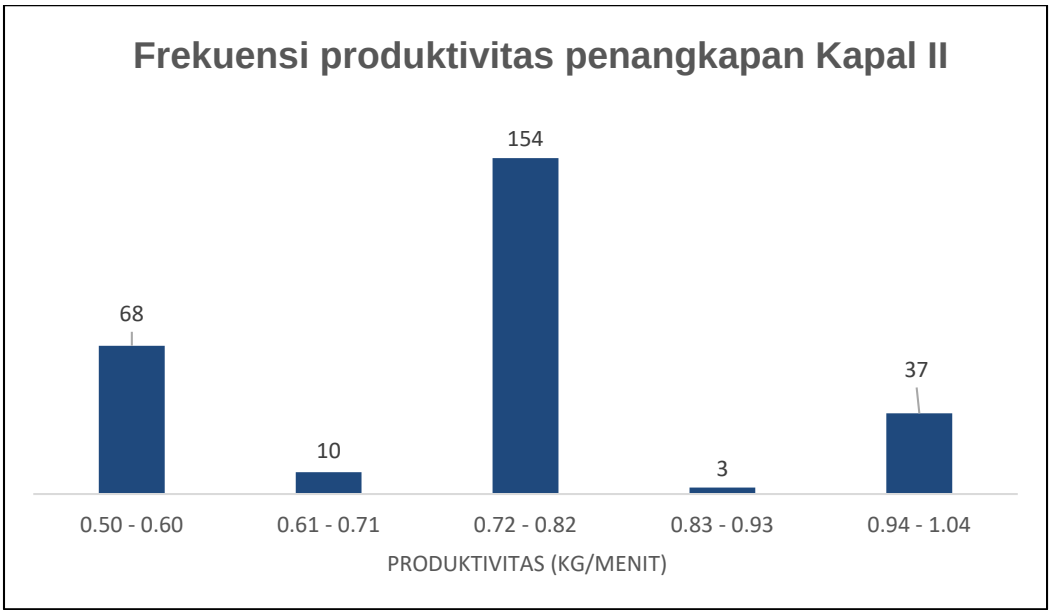


Figure 2. Productivity of stretched fishing vessels II

Analysis of different kruskal walis test results on productivity on 2 stretching fishing vessels The

value of productivity on both vessels was statistically significant between vessel 1, ship 2 (H = 16,564 df, p = 0,0001) with average rank the first ship is 379.87 and the second ship 318.69 H is the *kruskal wallis* value where the *chi-square value* in the df table is freedom and p is the significant value p value is

0,0001 smaller than 0.05 then there are different values of productivity in each ship.

Table 1. Results of analysis of different testwalis kruskalKruskal-Wallis Test

Ranks			
	SHIP	N	Mean Rank of
PRDUCTIVITY of	ship 1	440	379.87
	vessels 2	272	318.69
	Total	712	

Test Statistics[a, b]	
	PRDUCTIVITY
Chi-Square	16,564
df	1
Asymp. Sig.	, 000
a. Kruskal Wallis Test	
b. Variable Grouping: SHIP	

IV. DISCUSSION

Catching productivity is a measure of the production capability of a type of fishing gear. Fishing productivity is stated in the comparison between production and fishing efforts. The productivity of catching a fishing gear can be one indicator to determine the potential of a resource. Catching efforts based on the length of time the fishing gears lead to a tendency for productivity differences to occur between the two fishing boats (Nelwan et al., 2015). The fluctuations in the frequency of stretching fishing productivity on both vessels can be influenced by various factors, including the presence of tuna resources in FADs locations as the main function of using FADs to concentrate fish (Nelwan et al., 2015), seasonality factors which are related to food availability and suitability habitat (Mapstone el al., (2008); Saul et al., 2013; Nelwan et al., 2015) weather at the fishing location, meal time of yellow fin tuna (*Thunnus albacares),*fishing trip duration and supply of basic operational needs on board .

The productivity of catching yellowfin tuna *(Thunnus albacares)* between September-October can be said to tend to decrease, this is because in October and September it is not the season of yellowfin tuna fishing *(Thunnus albacares).* The catching season of Mididah (Yellowfin Tuna) occurs in the first transitional season of the beginning of the year, namely the west to east transition and the second transition season to the end of the year with the peak fishing season in the first transition season of the beginning of the year. The occurrence of fluctuations in the season pattern of catching Midnightfish (Yellowfin Tuna) is caused by monsoon and rainfall factors (Nontji 2002; Wijaya 2012; Putri 2015) so that fishermen do not carry out fishing operations or move locations in safer waters. Apart from monsoon and rainfall factors, catching season fluctuations are caused by migratory tuna in the Flores Sea, Selayar Islands Regency. According to the research results of Safruddin et al (2015) In September, the most productive tuna DPPI was found in the waters west of Selayar Island and South Tarupa Island. This is due to other environmental factors that influence fish distribution patterns such as primary productivity, salinity, migration to spawning areas, dissolved oxygen content, seasonal fronts and others.

V. CONCLUSION.

The productivity of catching yellow fin tuna (*Thunnus albacares)* highestship 1 is in the range of 0.72-0.82 kg / minute with a total frequency of 216 times and the highest productivity of fishing in ship 2 is in the range 0.72-0.82 kg / minute with a total frequency of 154 times .

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