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Catch Rate of *Pepetek (Leiognatus sp)*(*Leiognatus Sp*.) By Cantrang Fishing Gear Landed at PPP Mayangan Probolinggo

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ABSTRACT

Cantrang is a fishing gear usually used to catch shrimp and demersal fish. As well as catching shrimp and demersal fish, in the cantrang catch there is also *pepetek (Leiognatus sp)*. *Pepetek (Leiognatus sp)* is one type of fish that is included in a superior commodity and has high economic value, so its existence must be maintained and protected. This study aims to see the trend of *pepetek (Leiognatus sp)* caught by cantrang fishing gear landed at PPP Mayangan Probolinggo during 2014-2018. *Pepetek (Leiognatus sp)* caught year-round by cantrang fishing gear, with a peak catching in January to April for 3 years (2014-2016) and in August to December in 2017-2018. The catch per unit effort of the *pepetek (Leiognatus sp)* with cantrang fishing gear decreased by 89% from 2014 to 2015, then it has increased until 2018 with an average percentage of 32.49%. Furthermore, it is possible to conduct an assessment of other fishing gear that catches *pepetek (Leiognatus sp)*, so that the discussion becomes more comprehensive.

Keywords: Cantrang, CPUE, Demersal, Pepetek, Probolinggo

INTRODUCTION

Regency is one of the districts in East Java which has a coastal area with production of catches reaching hundreds of millions of rupiah per year (Prasetyowati *et al*., 2017). The Port of Mayangan has the majority of fishing gear units, namely the cantrang fishing gear which is operated totaling 117 out of the 189 units. Apart from Law No.2 / PERMEN-KP / 2015 concerning the prohibition of the operation of cantrang fishing gear, the catch that is landed every day has a major contribution to the economic turnover of fishermen and residents around the port. Cantrang is a trawl-like fishing gear which is operated by being pulled with the mouth of the net touching the bottom of the water. This fishing gear is usually used to catch shrimp and demersal fish.

Apart from catching shrimp and demersal fish, in the cantrang catch there are also *pepetek (Leiognatus sp)* (Widjayana et al., 2015). *Pepetek (Leiognatus sp)* is one type of fish that is included in a superior commodity and has a high economic value number 3 so that its existence must be maintained and protected (Santoso, 2016). *Pepetek (Leiognatus sp)*ing activities around the waters of Probolinggo have led to a competitive utilization pattern among cantrang fishermen, so it is feared that the *pepetek (Leiognatus sp)*ery conditions in these waters have experienced overexploitation (Muliawan, 2015). The assessment of the catch volume will support better management of the *pepetek (Leiognatus sp)*ery. So that it can reduce the ecological impact on the waters. This study aims to see the trend of *pepetek (Leiognatus sp)* caught by cantrang fishing gear landed in PPP Mayangan Probolinggo during 2014-2018.

METHOD

research was conducted in August - October 2019 at PPP Mayangan, Probolinggo City, East Java Province. The city of Probolinggo was chosen because it is one of the areas where most of the fishermen are affected by the enactment of Permen KP No. 2/2015.

Source: Google Earth

Figure 1. Map of Research Locations The

material needed in this study is secondary data in the form of:

1. Data on the number of fishing gear cantrang from 2014-2018
2. Data on the catch of the cantrang boat from 2014-2018

This data is obtained from statistical records of fish landing sites. PPP Mayangan Probolinggo starting from 2014-2018. The method used in this research is descriptive method.

Data collection is assisted by direct observation in the field to see and document the types of fish caught, and conduct literature studies to look for catch data. The sample chosen is all data on cantrang vessels, both regarding the number of vessels, the number and type of catch, fluctuations in the price of each type of fish during 2014-2018

The data that has been obtained from the fish auction is processed according to the needs of the analysis as follows:

a. Fluctuation of *Pepetek (Leiognatus sp)*Catch Results for 5 years (2014-2018),
b. Catch per Unit Effort for 5 years (2014-2018)

   CPUE value is calculated by dividing the number of total catch by the number of fishing fleets per year.

RESULTS AND DISCUSSION

Pepetek (Leiognatus sp) caught fluctuated from year to year. The highest catch in each year is in the early month, namely between January - April (Figure 2). This happened in the months of 2014 - 2016. Meanwhile, in 2017 - 2018 the highest catch was in August - December.

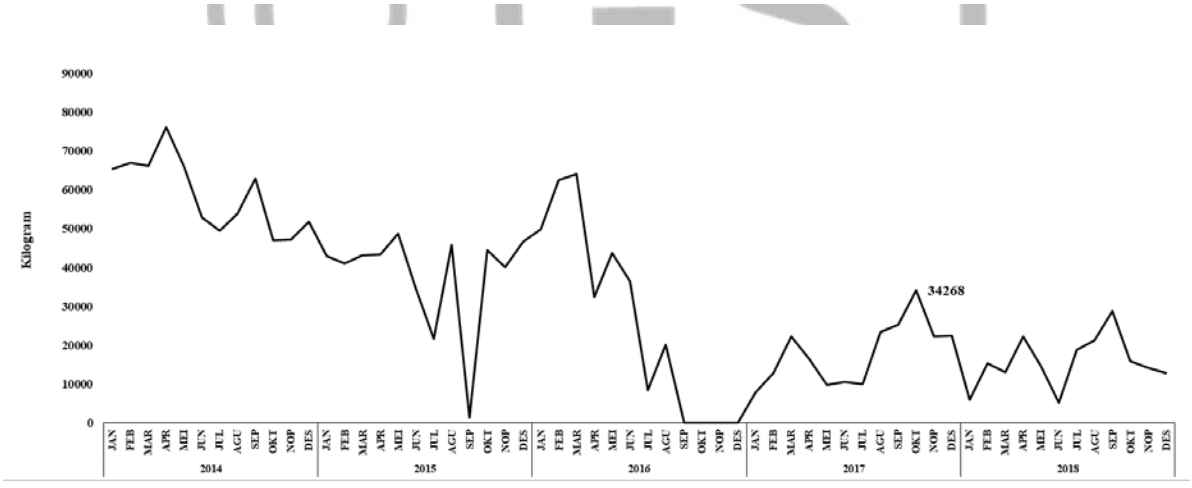

Figure 2. Fluctuations in Catch of *Pepetek (Leiognatus sp)* 2014-2018

Total catch of *pepetek (Leiognatus sp)*from 2014 to 2018 was mostly in 2014 as much as 706,862 kilograms. This figure is not much different from 2015, which was 46,627 kilograms. The number of catch of *pepetek (Leiognatus sp)* in 2016-2018 continues to decline with a percentage range of 19% - 22% (Figure 3).

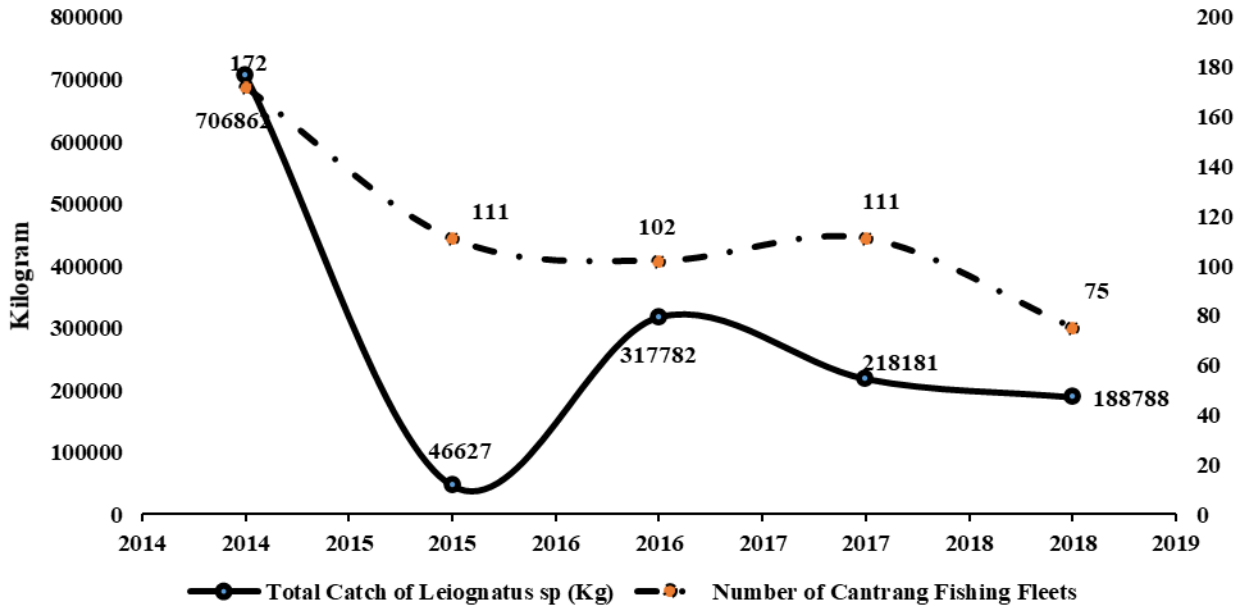

Figure 3. Fluctuation of *Pepetek (Leiognatus sp)*Catch and Number of Fishing Gears of Cantrang 2014-2018 The

Number of fishing gear per year shows a decrease (Figure 3), indicating that the decline in the catch of *pepetek (Leiognatus sp)*in Probolinggo is due to a decrease in fishing gear. The catch of *pepetek (Leiognatus sp)*in 2015 experienced a very sharp decline accompanied by a decrease in the number of fishing gear. So that in 2016, the catch increased even though the number of fishing fleets was reduced. There is a possibility that the *pepetek (Leiognatus sp)* population will gradually improve due to the reduced number of catches. However, if viewed from the monthly trend (figure 2), *pepetek (Leiognatus sp)* are still mostly caught in the early months of the year, so the decrease in the number of fishing fleets operating is the strongest cause of the decline in *pepetek (Leiognatus sp)* catches.

According to FAO, this condition is included in thecategory *depleted*, while according to the ministerial regulation, this condition is included in thecategory *over-exploited*. JTB of *pepetek (Leiognatus sp)* caught by all fishing gear landed at PPP Mayangan is the largest of most other demersal fish, which is up to 20% of the total catch. This amount has not been compared with the number of *pepetek (Leiognatus sp)* caught by other fishing gears (Wiyono 2010). However, if you look at the utilization rate figures that have reached the over exploited category, it is necessary to be careful in carrying out cantrang operations so as to reduce the number of *pepetek (Leiognatus sp)* caught.

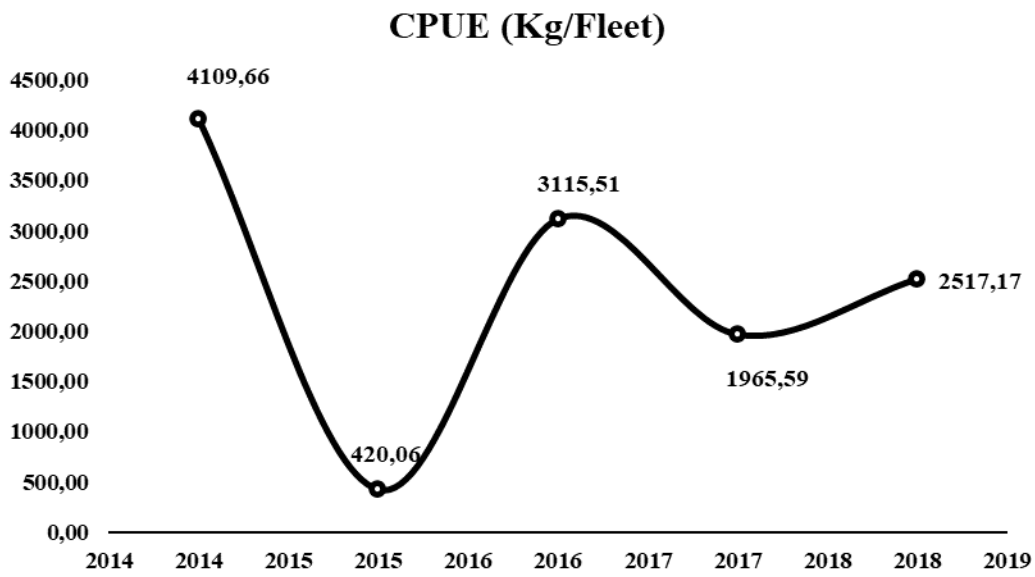

Figure 4. Catch Fluctuation per Unit Effort of Cantrang Fishing Gear against *Pepetek (Leiognatus sp)* (*Leiognatus sp*) 2014-2018

The highest CPUE results were in 2014 amounting to 4109.66 kg / fishing gear. The total catch of *pepetek (Leiognatus sp)*during 2014-2018 reached 1478,240 tons, with an average total catch per year of 295,684 tons. Meanwhile, the average CPUE per fishing gear in Probolinggo reaches 2426 Kg. As a comparison to other waters, namely in the Kendal area.

CONCLUSION

Based on this research it can be concluded as follows:

1. *Pepetek (Leiognatus sp)* are caught throughout the year with peak fishing in January - April for 3 years (2014-2018) and August - December in 2017 - 2018.
2. The catch per unit effort of the *pepetek (Leiognatus sp)* with cantrang fishing gear decreased by 89% from 2014 to 2015, then it has increased until 2018 with an average percentage of 32.49%.

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