

other factors. Some factors that are suspected to affect CPUE values are the condition of the fishing ground and the oceanography of the waters (Mayu et al., 2018)

Maximum Sustainable Yield (MSY) of Banana Prawn

Maximum Sustainable Yield (MSY) use as a reference for fishery resource management that allows it to exploit to keep resource stocks safe (Listiani et al., 2017). The data used in MSY calculations are data on catches and fishing effort banana prawn that are time series from 2016 - 2020. The calculation curve of MSY banana prawn is present in Figure 6.

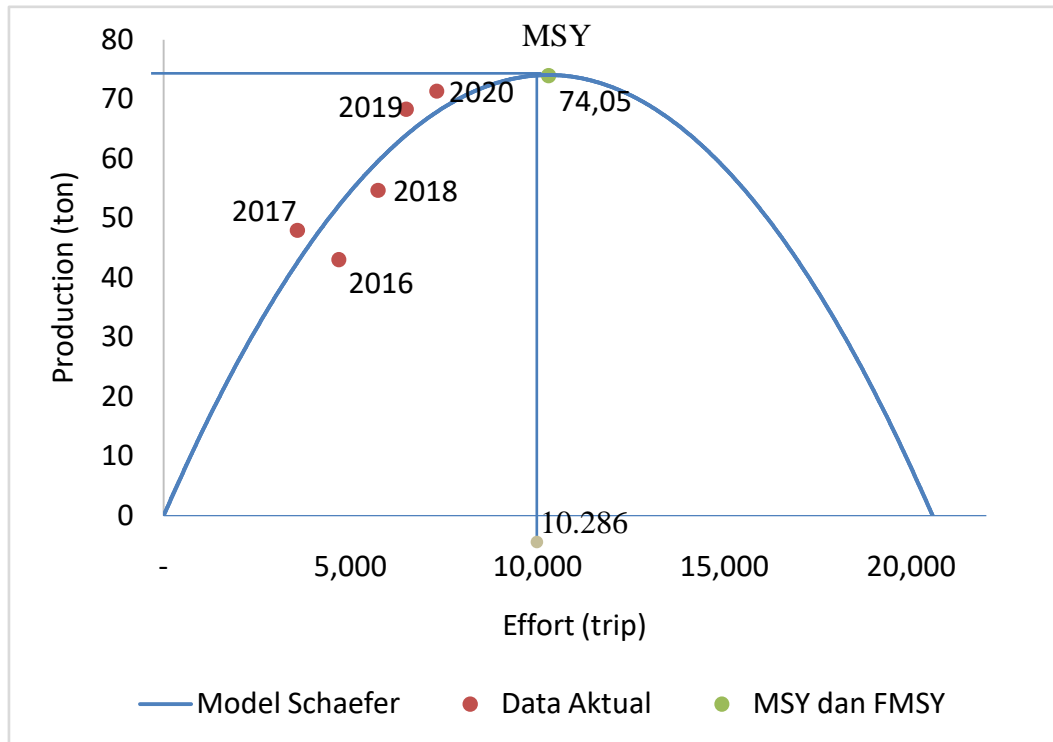


Figure 6. Maximum Sustainable Yield of Banana Prawn in Pangandaran Waters (2016 – 2020)
 (Source: Primary data)

Based on the results, optimum fishing efforts can be done by 10,286 trips per year and the production value of Maximum Sustainable Yield (MSY) of 74.05 tons per year. Fishing efforts made have not exceeded the optimum fishing efforts of banana prawns. The same thing occurs in the production of catches that have not reached the Maximum Sustainable Yield point. Other factors that can affect the production of banana prawns that fishermen only use one type of fishing gear it is a trammel net that the fishing effort is not excessive. The conditions suggest that the management of banana prawn resources still allows for continued exploitation on a limited scale. The evidenced by the actual data on catch production of banana prawn resources in 2020 of 71.40 tons. The result is almost close to the MSY value of 74.05 tons.

Utilization level of Banana Prawn

Utilization level to determine the amount or percentage that indicates the use of fishery resources that have been utilized. The utilization level of banana prawn in 2016 – 2020 in the Pangandaran Regency is present in Table 1.

Table 1. Banana prawn Utilization Rate from 2016 - 2020

Year	Catch (ton)	Sustainable Production (MSY) (tons)	TAC (80% MSY) (tons)	Utilization Rate (%)
2016	43,02	74,05	59,24	58
2017	47,99	74,05	59,24	65

2018	54,71	74,05	59,24	74
2019	68,29	74,05	59,24	92
2020	71,40	74,05	59,24	96

Based on Table 1. concluded that in the last five years the utilization level of banana prawn has almost reached the optimum level. The highest banana prawn utilization level occurred in 2020 at 96%, while the lowest occurred in 2016 at 58%. The utilization level of potential resources of banana prawn in 2020 according to the Regulation of the Minister of Marine Affairs and Fisheries of the Republic of Indonesia Number Per.29/MEN/2012 is at fully exploited status. So, catching that banana prawns still can be done but must be effective and efficient that the stock of resources is maintained sustainability

Resources of banana prawn in Pangandaran Waters must be managed and utilized on a limited scale so that the sustainability of the shrimp is maintained. If the stock of banana prawn resources continues to decline will certainly harm all parties such as fishermen, the fisheries service, the fishing industry, especially shrimp, and consumers who take advantage of those resources.

4. CONCLUSIONS

Based on the analysis of the results, the estimation potential and utilization level of banana prawns in Pangandaran Waters can be concluded that the Maximum Sustainable Yield (MSY) of banana prawns is 74.05 tons with an optimum fishing effort is 10,286 trips per year. The utilization level of banana prawns in 2020 is 96% which is in a fully exploited status.

5. ACKNOWLEDGEMENT

This paper is the result of a thesis "Analysis of Bio-Technique Catching *Penaeus merguensis* in Pangandaran Waters". I would like thank you to DKPKP Pangandaran Regency, PP Cikidang, TPI Minasari Pangandaran, and TPI Bojongsalawe for granting permission to conduct research and collect data. Thank you also addressed Mr. Alexander M. A. Khan, S.Pi., M.Si., Ph.D., Ms. Lantun Paradhita Dewanti, S.Pi., M. EP, and Mrs. Izza Mahdiana A, S. Pi., M.Si., for their guidance and assistance in the preparation of this research.

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