

ABSTRACT

Scallop (*Amusium pleuronectes*) is one kinds of fishery resources which has potency to be exploited because of its economic value in international trading. At Central Java Province, exactly at Batang Regency, it is one of regions that there is scallop catching. The aims of this research were to analyze scallop bioeconomic condition with MSY, MEY and OA indicators, to identify scallop producers profile (fishers and fish traders) and to give suggestions for scallop's sustainable management in Batang Regency.

The bioeconomy method in this research was Gordon-Schaefer surplus production model. The data that used in bioeconomic analysis were trips of catching effort and scallop production in 10 years (2000-2009). Identification of scallop producers profile was analyzed as the analysis of profit/loss, R/C (return-cost ratio), and BEP (break even point). Results from bioeconomic and producer's profile analysis were used as a base to give suggestion for sustainable scallop's management in Batang Regency. Method of data sampling in this research was multistages sampling.

The results of Gordon-Schaefer bioeconomic model showed that Maximum Sustainable Yield (MSY) of scallop production was 6713,31 kg/year and the effort of MSY (E_{MSY}) 719 trips/year. The Maximum Economic Yield (MEY) of scallop production was 5103,23 kg/year and the effort of MEY (E_{MEY}) 352,21 trips/year. While limitation for scallop production in Open Access condition was 5898,91 kg/year and the effort maximum 1050 trips/year. Profit/loss analysis for "Arad" fishers showed the profit for each trip was Rp252.500,00. R/C value was 1.42. It meant that the arad operations was still profitable. And the BEP production happened when the production was 3005,6 kg/year. The result of profit/loss analysis for fish traders showed that the profit was Rp 4.393.000,00 each month, R/C value was 1.34. It meant that this business was still profitable. BEP production for fish traders happened when 1315.61 kg/year production.

The scallop's resources management suggestion was by giving direction of cod-end meshsize to the fishers from 2 cm changed into 5 cm or using BED (*By-catch Excluder Device*). Besides, there will be needed fishing gear diversification and fishing with alternate season to catch scallop. The social approach for fisheries society at research area was needed an assistant program for social empowerment so that they can increase their skills.

Keywords: Scallop, Bioeconomic, Fisheries Management, Batang