

ABSTRACT

THE ANALYSIS OF WATERS SUITABILITY OF PIDADA BAY AS THE LOCATION OF HUMPBACK GROUPER (*Cromileptes Altiavelis*) AQUACULTURE USING FLOATING NET CAGES SYSTEM

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The groupers are leading commodity of Indonesian fishery. This fish has a high economic value, especially humpback grouper (*Cromileptes altivelis*) which is an export commodity. Grouper aquaculture development is very rapid including in Lampung Bay. Lampung Bay has coves which can be developed as a marine aquaculture. One of them is located in the coast of Pidada Bay, Punduh Pidada. Water quality contributes to the success and sustainability of aquaculture. The purpose of this study is to analyze the waters suitability of Pidada Bay for humpback grouper based on the parameters of physics, chemistry and biology. The method used is descriptive analysis. Waters suitability analysis was performed using matching and scoring methods. Determining the location of research is designed by using purposive sampling method. The results were obtained the range brightness values of 5,5 - 17,5 meters, temperature of 30°C, current speed of 20 - 40 cm/sec, DO of 5,13 - 6,56 mg/l, pH of 8,04 - 8,16, and salinity of 31 - 33 ppt. The range showed that the waters are still in a suitable condition for culturing the humpback grouper. While the range of depth values, nitrate, phosphate, and the abundance of plankton were 25 - 39,5 meters, 0,006 - 0,360 mg/l, 0,015 - 0,145 mg/l, and 1145 - 4640 cells/liter respectively, showed that less support for humpback grouper aquaculture. Results of the waters suitability analysis showed that the score of waters suitability for humpback grouper culturing using floating net cages system in the location of research 1, 3, 4 are 82%, and the location of research 2 is 76%. It indicates that the waters of Pidada Bay are quite appropriate (S2) for the cultivation of humpback grouper.

Keyword: humpback grouper, Pidada Bay, suitability of waters.