ABSTRACT

MULIARI. Study Spatial and Temporal of Coral Reef State and Reef Fish Community after Tsunami In Weh and Aceh Islands Waters. Under direction of DEDI SOEDHARMA and NEVIATY P. ZAMANI.

The Tsunami in Aceh had caused to the damage of the Aceh nese reefs ecosystem. However, the ability to recover is naturally found in the coral reef. The purpose of the research are to determine percentages of hard coral cover and coral recruitment in Weh and Aceh Islands. The research was conducted in 2006, 2008, 2009, and 2011. The research was done in Aceh islands, utilization areas, marine natural tourist park (TWAL) and regional marine conservation areas (KKLD). Point Intercept Transect (PIT) and square transect Methods were applied in the research. The research showed that the percentages of hard coral cover in 2011 in Aceh island and utilization areas are 49.38% and 34.16 %, respectively. On the other hand, in marine natural tourist park (TWAL) and regional marine conservation areas (KKLD) are 32.66% and 41.27 % respectively. The percentages of coral cover had increased from 2006, 2008 to 2009. Meanwhile in the percentages of coral cover marine natural tourist park (TWAL) and regional marine conservation areas (KKLD) decreased in 2011. The highest recruitment occurred in 2008 in all survey areas and decreased in 2009. Thus, this study concluded that there existed a recovery of coral reef ecosystem with an increase in the percentage of hard coral cover and coral recruitment from 2006 to 2011. The highest abundances of reef fish in 2011 were found in marine natural tourist park (TWAL) with total amount and biomasses of 15.559 individual/ha and 1.574.43 kg/ha, respectively.

Keywords: Coral reef, reef fish community, tsunami Weh and Aceh islands