

## ABSTRACT

**Siti Mariam Ulfah. 2017. Comparison of Macrozoobenthos Community Structure in Coral Beach and Seagrass Bed at Sindangkerta Beach, District of Cipatujah, Tasikmalaya Regency. Advisors: Drs. H. Ahmad Mulyadi, M.Pd. and Drs. Suhara, M.Pd.**

This study regarding the Comparison of Macrozoobenthos Community Structure in Coral Beach and Seagrass Bed is conducted in the littoral zone of Sindangkerta Beach, District of Cipatujah Tasikmalaya Regency from May 16<sup>th</sup> to 19<sup>th</sup> 2017. This study aims at measuring the diversity and abundance of macrozoobenthos and comparing macrozoobenthos community structure of coral beach and seagrass bed using the Sorensen Index. The method employed is descriptive with Belt Transect-Quadrat design consisting of six stations with the distance of 50 meters each and each station consists of six square of 1x1 m<sup>2</sup> with the distance of 10 meters each other. The sampling uses Hand Sorting method. The main data measured are comparing diversity and abundance of macrozoobenthos using the Sorensen Index and the supporting data are in the form of environmental factors including temperature, Dissolved Oxygen (DO), pH and salinity. Based on the result of the identification and data analysis, 69 species of macrozoobenthos are obtained and consist of one species of Polychaeta; 14 species of Crustaceans; Phylum Mollusca, 47 species of Gastropoda and 3 species of Bivalve; Phylum Echinodermata, 2 species of Ophiuroidea and one species of Echinodea and Holothuroidea. The macrozoobenthos average diversity index in the coral beach is 2.167 and the macrozoobenthos average diversity index in the seagrass bed is 2.378, both values of the diversity index are included in the medium diversity category. The average abundance of macrozoobenthos in the coral beach is 42 Ind/m<sup>2</sup>, whereas the average abundance of macrozoobenthos in the seagrass bed is 63 Ind/m<sup>2</sup>. *Diadema setosum* (Echinoidea, phylum Echinodermata) is the most abundant species in the coral beach with the total of 53 Ind/m<sup>2</sup>, while in the seagrass bed, *Clypeomorus petrosa* (Gastropoda) is the most abundant species with the amount of 67 Ind/m<sup>2</sup>. Overall, the diversity and abundance of macrozoobenthos in the seagrass bed are higher than in the coral beach. The similarity index shows the macrozoobenthos ratio between the coral beach and seagrass bed by 66%. This value indicates that both ecosystems have the same conditions in supporting the existence of macrozoobenthos.

**Keywords:** Community structure, Diversity, Abundance, Sorensen Index, Macrozoobenthos.