ABSTRACT

Dhea Puspita Sari. 2017. The Analysis of Algae Diversity in the Coral Beach and Seagrass Bed at Sindangkerta Beach, District of Cipatujah, Tasikmalaya Regency. Advisors: Drs. Yusuf Ibrahim, M.P., M.Pd and Dra. Hj. Lilis Suhaerah, M.Kes.

The purpose of this study is in order to obtain information regarding the diversity of algae and algal community structure in the coral beach and seagrass bed of Sindangkerta Beach, District of Cipatujah, Tasikmalaya Regency. The study was conducted from May 16th to 19th, 2017. This study uses the method of descriptive and the design of Belt Transect-Quadrat for 250 meters which consists of six stations with the distance of 50 meters each. Each station consists of six squares with the distance of 10 meters each. The sampling method is hand sorting. From both places, 11 orders, 12 families, 13 genera, and 13 species are obtained. The number of algae found in the coral beach is 3182 individuals and in the seagrass bed is 462 individuals. The secondary data measured are in terms of climatic factors, such as air temperature, humidity, and light intensity. The secondary data are processed using Multiple Linear Regression on IBM SPSS in order to determine the effect of climatic factors on the diversity of algae and algal community structure. The highest level in terms of diversity in the coral beach is found on Sargassum sp and in the seagrass bed is found on Padina sp with the average level of Diversity Index ranges from 1.15 to 1.22, which indicates that the diversity level of Algae in Sindangkerta Beach, District of Cipatujah, Tasikmalaya Regency is in medium category. The ratio of algal community structure in both places is measured using Sorensen's Similarity Index of 70% which indicates that the both places have high level of species similarity.

Keywords: Diversity, Community structure, Algae.