ABSTRACT

Seftianty, Nuryenty. 2018 . A study of plankton abundance and diversity in estuary waters at Karangsong Mangrove area in Indramayu regency as Biology education source. Advisors: Drs. H. Ahmad Mulyadi, M.Pd. dan Fitri Aryanti, S.T., M.Pd.

The objective of this research is to get the data of plankton abundance and diversity in estuary waters at Karangsong Mangrove area in Indramayu regency. The research conducted on 21^{th} – 22^{th} of April 2018. The Method of this research is descriptive method. The research design used is sampling method using plankton net. The sampling is done in 3 stations of estuary waters. Each of the stations has 3 observation point, and the sampling is repeated thrice for each of the observation point. Sample identification is done in Biology Laboratory, FKIP Universitas Pasundan Bandung. Supporting data which is measures is climatic factor including water temperature, brightness, salinity, dissolved oxygen (DO) pH, and dissolved organic material. Supporting data is analyzed using multiple linear regression in SPSS to know about the effect of climatic factor on abundance and diversity. The result shows that the abundance of plankton is 955.600-1.586.800 ind/l and the abundance of zooplankton is 877.200-1.966.000 ind/l. The Phytoplankton is composed of 15 types which are classified to 4 classes, those are bacillariophyceae (9 species), chloropyceae (1 species), coscinodiscophyceae (2 species) and dinophyceae (3 species). Meanwhile the zooplankton is composed of 7 species which are classified into 2 classes, those are cilliata (2 species) and crustaceae (5 species). The average of phytoplankton diversity index value (H') is 2.296 and the average of zooplankton diversity index value is 1.417 show that the diversity of plankton in estuary waters at Karangsong Mangrove area in Indramayu regency is classified into medium.

Keyword: Abundance, Diversity, Plankton