

ABSTRACT

Sudaryanto Umasangadji (NPM: 05181411047). Horizontal Distribution of Tidal Phytoplankton in Central Ternate Waters. Supervised by: Halikuddin Umasngaji, Spi, Msi, PhD (Supervisor I) and Mrs. Dr. Yuliana, Spi, Msi (Advisor II).

Various community activities on land and at sea can also result in changes to chemical and physical factors that impact the phytoplankton community. Various environmental factors as mentioned above will have an impact on the life of phytoplankton. If the change actually raises dangerous species, then the waters in question are already in the worrying category. To find out all that, it can be seen from the number and reduction of phytoplankton communities at each station. Some information about abundance through community structure analysis has been passed but its relation to tides is still rare. So the researchers took the title about the horizontal distribution of phytoplankton in relation to the tides of sea water which refers to the coastal waters of Central Ternate, it must be done in order to know the distribution of phytoplankton in these waters. The aim is to determine the horizontal distribution of phytoplankton in relation to tides in the coastal waters of the city of Central Ternate. The benefits of this research are expected to provide the latest information regarding the abundance of phytoplankton and the composition of the types of phytoplankton in the waters of Central Ternate in relation to tides. This research was conducted in the coastal waters of the City of Central Ternate, held in March 2020. The waters of Ternate City were chosen as scientific research sites which have various biota that live in them and there is no research on the Horizontal Distribution of Phytoplankton with Tidal Relation. This information is very important and up-to-date in relation to the processing of aquatic resources in the future. Based on the results of the study, the abundance index analysis in the tide of 4,091-7,636, receding 1,909-4,273, the value of the H 'Diversity index at the tide 1.54-1.69, receding 1.22-1.45 (medium community criteria), the dominance of C at the tide of 0.20-0.28 ebb 0.28-0.32 (moderate dominance index) and E uniformity values in pairs 0.74-0.94, decreased 0.90-0.22 (criteria for the number of individuals of each lertif the same), from each station in the retroactive pairs found 11 types from the class Bacillariophyceae, Cyanophyceae, Chlorophyceae. The distribution of phytoplankton also depends on the tides and tides when the tides rise in sea level, which can increase the abundance of phytoplankton due to the carrying capacity of the water mass. At low tide, the abundance of phytoplankton decreases because the lowering of the sea level also brings the elements of contaminants that are present in the dead river, which is close to the settlement of the population, resulting in a decrease in the abundance of phytoplankton at low tide.

Keywords: Horizontal Distribution of Phytoplankton