

Mapping and Evaluation of Bivalves Community Structure in Sendang Biru Beach on Maang District

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Abstract

The objective of this research was conducted spatial distribution mapping of Bivalves and analyze the composition, abundance, diversity of Bivalves and determine the quality of water at various locations in Sendang Biru Beach, Malang Regency, East Java. The research was conducted in July - December 2017. Cruising method was used in this research which done by exploration of Bivalvia in 4 research location included coastal tourism area, seaport, fish market and less human activities that used for reference site / RS. The location of bivalves was marked using GPS for mapping purposes and then identify the species name, calculating the abundance, and determined the substrate types. Water quality includes Dissolved Oxygen (DO), turbidity, pH, temperature, conductivity, and salinity were measured at each study site. The results showed that in Sendang Biru Beach only found 4 Bivalves species which had random spatial distribution. *Anadara granosa* was found only in coastal tourist areas. *Tridacna crocea* was found only in RS. *Saccostrea cucullata* and *Saccostrea glomerata* can be found in all of locations except coastal tourist areas. The human activity around Sendang Biru Beach has influenced the Bivalves community. RS has the highest species richness (3 species). The total abundance of *S. cucullata* was highest as well as dominances in all stations, except coastal tourist areas. Bivalve's diversity index was low with a score of 0.00-0.76. Water quality at Sendang Biru Beach based on parameters of pH, temperature, salinity, and turbidity still meet the standard of seawater quality standard for marine biota.

Keywords : *Bivalves, diversity, mapping, Sendang Biru, water quality*