ABSTRACT
Sea cucumber (Holothuroidea) is one of sea product which its population were endangered species since over exploitation by human. Another problem is not much information related with condition of sea cucumber community, especially in small region. One of small region which has large sea cucumber potential is Small Pagerungan Island Sapeken Sub-district Sumenep Residence.
This research aimed to find out variance, ecology parameter, variance index, and dispersion pattern of sea cucumber existed on Small Pagerungan Island reef flat region Sapeken Sub-district Sumenep Residence. The research was descriptive research. This research was done at August 1st to 10th 2008 in evening subsided condition by multiple transect method. Data collected by observation or direct study to the population studied.
This research showed that the sea cucumber found consisted of Holothuria hilla, Actinopyga lecanora, Stichopus horrens, Actinopyga mauritiana, Stichopus variegates, Holothuria fuscopunctata, Euapta godeffroyi, Holothuria impatiens, Holothuria leucospilota, Holothuria scabra dan Synapta maculata. Ecology parameter of sea cucumber were: (1) Density around 0.162 ind/m² - 1.370 ind/m², relative density around 0.035-0.292, highest density H. hilla kind and the lowest Synapta maculata. (2) Frequency around 0.130-0.720, relative frequency around 0.037-0.206 with the highest frequency was Holothuria hilla and the lowest Synapta maculata. (3) The highest index of value was Holothuria hilla 0.498, and the lowest Synapta maculata 0.072. Variance index of Shannon-Wiener (H’) was 2.38 or medium richness category and evenness value (E) was 0.992 means community tend to flat (E near of 1). 1). Index of Morisita (IM) around 1.23-2.99 or IM > 1 which mean dispersion of all sea cucumber was clumped.