

Marine Resources Degradation on the Eastern Part of Rupat Strait based on the Sedimentological Aspects Poin of View

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ABSTRACTS

The main purpose of this study is to clarify the relationship between degradation of merine resources and sedimentary enviroments based on sediment characteristics and oceangraphic. The obtained data are all based on analysis results of grab, acumulated and core samples taken from the Eastern Part of Rupat Strait in East Coast of Somatera Island. Bottom sediment samples were collected at 30 stations in the strait using grab sampler, 3 stations using sediment trap and 9 stations by gravity corer in June 2013. The samples were used for mechanical grain size analysis, ignition loss method, and grain-sand composition analysis. In addition, concentration of total suspended sediment from the 30 stations are also analized. The Eastern Part of Rupat Strait can be subdivided into three areas based on the general trend of sediment characteristics and oeanographic obersevation as following: 1) the area along coast of Sumatera Island from west to east in the strait is characterized by fine-grained sediments, the highest total suspended sediments, and dominantly terrigenous sediments under influence of rather weak longshore currents and poorly sorted and high content organic matter sediments discharged by rivers, 2) the middle area of the strait from west to east characterized by rahther fine-grained sediments, high total suspended sediments, and high biogeneuous sediments. The area may correspond to the boundary between the waters masses derived from Rupat Island and of from east coast of Sumatera Island, and 3) the area along coast of Rupat Island from west to east in the strait is characterized by coarse-grained sediments, low contents of total suspended sediments, and rather high biogeneuous sediments eventhought low content of organic matter sediments, under influence of strong longshore currents. Judging from the distribution pattern of sedimentological aspects and of oceanographic characteristics, marine resources of the Eastern Part of Rupat Strait tend to be degraded namely the area along coast of Sumatera Island showing high degradation, the middle area of the strait is rather high, and the area along coast of Rupat Island indicated low degradation.

Keywords: sedimentary enviroments, sedimentological aspects, and marine resources

