## Analysis of Sediment Distribution around Karang Sela Coral Reef Using Multibeam Backscatter

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**Abstract :** A sediment map is quite important in the marine environment. The sediment itself contains thousands of information that can be used for other research. This study was conducted by using a multibeam echo sounder Reson T20 on 15 August 2020 at the Karang Sela (coral reef area) at Pulau Bidong. The study aims to identify the sediment type around the coral reef by using bathymetry and backscatter data. The sediment in the study area was collected as ground truthing data to verify the classification of the seabed. A dry sieving method was used to analyze the sediment sample by using a sieve shaker. PDS 2000 software was used for data acquisition, and Qimera QPS version 2.4.5 was used for processing the bathymetry data. Meanwhile, FMGT QPS version 7.10 processes the backscatter data. Then, backscatter data were analyzed by using the maximum likelihood classification tool in ArcGIS version 10.8 software. The result identified three types of sediments around the coral which were very coarse sand, and medium sand.

**Keywords :** sediment type, MBES echo sounder, backscatter, ArcGIS

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