

CORAL PATCH MAPPING WITH AIRBORNE BATHMETRIC LIDAR

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Abstract: Bathymetric Lidar utilizes green laser and scanning mechanism for coastal zone surveying. It has been proven to be effective for mapping shallow water and coral reef area. Coral reef provides diversified ecological habitats. In this study, terrain analysis is performed with data collected in an airborne bathymetric lidar mission for mapping coral patches. Classification with features such as bathymetric position index (BPI), slope and rugosity are explored for Dongsha atoll located in the South China Sea. The classification is compared with manually digitized coral patches based on human interpretation.

KEY WORDS: Rugosity, Benthic Position Index, Object-based Classification