

# **Mapping The Uncharted Nearshore Reefs in Southern Kuantan Coastal Waters Using Single Beam Echosounder and Coral Video Transect**

## **ABSTRACT**

The coral reefs along the southern coastal waters of Kuantan are one of the pristine and unexplored coral ecosystems with remarkably high coral diversity. Understanding the reef morphology and condition of corals in this study area is important for conservation efforts. The aim of this study is to produce bathymetric maps of reef morphology using single beam echosounder and to determine the diversity and distribution of corals using the Coral Video Transect (CVT) technique at three sampling sites. Coral Point Count with Excel extension (CPCe) software was used to analyse the images for coral cover identification and measurement. The results of the bathymetric maps show the presence of coral mound structure located on submerge shoals with the depth range of 12 - 17 meters and the coral cover at the sampling sites is in 'fair' condition with an average of live coral cover  $50.9\% \pm 5.77$ . Twenty-two coral genera from eight families were recorded and corals of the genus *Porites* dominate the coral cover along the sampling sites. *Porites* was particularly resistant to extreme thermal and salinity stresses and could adapt well to turbid water. The results of this study can provide reliable scientific data on reef morphology and coral conditions in the southern coastal waters of Kuantan.