



Habitat mapping using integrated seafloor visualization for understanding geological characteristics around the nearshore area of Dokdo(Dok Island) in the East Sea

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We conducted a habitat mapping study using integrated seafloor visualization. We obtained precise bathymetry and analyzed seafloor conditions for understanding habitat seafloor characteristics around the nearshore area of Dokdo in the East Sea. The field survey was carried out around the nearshore area of Dongdo(East Islet) and Seodo(West Islet) of Dokdo. We have been acquired the precise topography map using multibeam echosounder systems(EM3001, EM2040(Kongsberg), SONIC2020(R2Sonic)). Seafloor images have been obtained by side scan sonar data(EdegTech 4125) and backscattering data(multibeam echosounder systems). High-resolution underwater video images that represented real seabed environment were obtained by scuba dive survey. Each result of study were applied the integrated visualization techniques. One habitat map shows detailed topography map with geological seabed condition information using bathymetry data and seafloor images. Other habitat map that was fulfilled by detailed bathymetry data and high-resolution underwater video images is helpful to monitoring and comprehend real seafloor environment with topographic condition. The integrated seafloor visualization results present more valuable information than separate geological outputs for seabed environmental mapping study. This study is useful to understand the relations between seafloor characteristics and topographic environments for habitat mapping around the nearshore area of Dokdo.