

Preliminary account of benthic habitat mapping on shallow gas hydrate areas on the eastern margin of Japan Sea.

\*Hideki Numanami<sup>1</sup>, Remi Warabi<sup>2</sup>, Hitoshi Tomaru<sup>3</sup>, Mikio Satoh<sup>4</sup>, Ryo Matsumoto<sup>2</sup>

1.Department of Modern Home Economics, Faculty of Contemporary Human Life Science, Tokyo Kasei Gakuin University, 2. Organization for the Strategic Coordination of Research and Intellectual Properties, Meiji University, 3.Department of Earth Sciences, Chiba University, 4.National Institute of Advanced Industrial Science and Technology

This study presents results of an approach for sea floor habitat mapping based on an integrated analysis of multibeam bathymetric data, associated geoscientific information, and benthos data from shallow gas hydrate areas on the eastern margin of Japan Sea.

Six areas, SW of Oki trough, SE margin of Oki trough, Northern Torigakubi spur, off SW of Sado, off Hajikizaki and NE of Torimiguri were investigated. The number of individuals of macrobenthos taken a picture of to the high-definition television camera of ROV "Hyper dolphin" was done and several in total was done at ten seconds in which the position of ROV was recorded. The bottom sediment was recorded at the same time, and the relation between the benthos distribution and the bottom sediment was examined. In addition, the positional data of ROV, the bottom sediment, and the benthos distribution were input to GIS, it reflected in the bathymetric chart, the habitat map was made, and the benthos distribution and the seafloor condition in each area were compared. This study was conducted as a part of the shallow methane hydrate exploration project of METI.

Keywords: shallow gas hydrate, habitat mapping, benthos