



Sedimentologic response to the relative sea level change in a narrow uplifted shelf

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High-resolution seismic records and cored samples were investigated in order to investigate the transitional pattern of the sedimentologic and stratigraphic characters of the Quaternary deposits in the eastern shelf of Korea. The study area is located in the Ulleung Basin in the East Sea (Japan Sea), the southwestern margin of which was reportedly uplifted by compressional forces since late Miocene. Based on the results the Quaternary deposits of the study area could be divided in vertical succession into three units; homogeneous shelf mud (HSM), heterogeneous coastal complex (HCC), and solid laminated non-marine mud (LNM) downward. Horizontally the HSM dominates the inner shelf area, whereas the HCC the outer shelf. The LNM unconformably underlies the other two with several exceptions of local exposure possibly veneered by thin mud or sand layers. According to the study results it could be concluded that the study area well preserves the sedimentary records of relative sea level change since late Miocene.