



Surface sedimentation and sediment property of 2014~2015 years on the Dongho open-coast intertidal flat, Gochang coast of southwestern Korea

Woo Hun Ryang, Na Yeong Kang, and Sol Ip Kang

Chonbuk National University, College of Education, Division of Science Education, Jeonju, Jeonbuk, Republic of Korea
(ryang@jbnu.ac.kr)

The Dongho intertidal flat, located on the southwestern coast of Korea, is macro-tide, open-coast, linear shoreline, and sand substrates. In the Dongho intertidal flat, this study has focused on characteristics of surface sedimentation and sediment properties during 2014~2015 years. Can cores ($30 \times 17 \times 5$ cm³) were sampled at 4 sites with 150 m interval from shoreline to lower intertidal area during the 6 seasons from spring (June) in 2014 to summer (Aug.) in 2015. The 24 can cores of the intertidal flat were analyzed for sediment texture, porosity, wet density, grain density, and shear strength at 2, 10, and 25 cm parts from the top. Sediment type is mostly sand (S) facies of the Folk scheme, and mean grain size and skewness of the sediments are $0.93 \sim 2.70$ [μm] and $-0.50 \sim 0.41$, respectively. Sediment properties show porosity of $9 \sim 32\%$, wet density of $1.88 \sim 2.45$ g/cm³, grain density of $2.62 \sim 3.09$ g/cm³, and shear strength of $8 \sim 64$ kPa. The cancore peels represent planar and inclined stratification and bioturbated faintly stratification with some shell fragments. The stratification weaken from the shoreline to the lower intertidal site. This is indicative of waning influences of sea wave in the Dongho intertidal flat.

Keywords: macro-tide, open-coast, can core, intertidal flat, Gochang coast

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