

chemical, ecological factor and chlorophyll a density of coastal sea water. At the same time, the statistical software SPSS was used to make further optimization analysis to the correlation of marine ecosystem structure, function and environmental indicators. On this basis, perfect the method of ecosystem assessment, guarantee the accuracy and scientificity of assessment method, which promote the comprehensive understanding of ecosystem healthy.

Distribution of Polycyclic Aromatic Hydrocarbons (PAHs) concentrations in different size fractions sediments from the intertidal zone of Bohai Bay in China

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Distributions of 15 polycyclic aromatic hydrocarbons (PAHs) were analyzed in different particle size fractions (<0.031 , $0.031-0.063$, >0.063 mm) for three sediments from Intertidal Zone of Bohai Bay. The results indicated that the total PAH concentrations ranged from 58.60 to 1289.75 ng /g dry weight and varied remarkably among the different size fractions in these sediments. In all three sediments, the highest of PAH concentrations is in the sand fraction (>0.063 mm), the lower in the medium silt-clay fraction (<0.031 mm) relatively, and the lowest in the coarse silt fraction ($0.031-0.063$ mm). However, the relative contribution of PAH to environment in the medium silt-clay fractions for Qikou estuary sediments is absolutely main fraction, but in the sand fractions for Dagu estuary and Lüju river sediments because of the different percent ratio of three size fractions in the sediments.

Topographical change of the sandbar and estimation of suspended solid flux in the Nakdong River Estuary, Korea

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The ecological environmental zones in coastal area, like tidal flat, salt marsh and sandbars, were gradually decreased and changed due to large scale of coastal development projects, land reclamation, dike construction, and large amounts of soil dredging and so on. In this study, to establish a countermeasure from marine casualties as a basic study for long-term prediction of topographical change around Jinudo in the Nakdong river estuary, spatio-temporal topographical change monitoring was carried out. Also, In order to estimate the deposition changes concerning SS (Suspended Solid) flux at St.S1, SS concentration and current velocity were measured using the Van Dorn water sampler and RCM-9 during spring and neap tides.

From the monitored results of topographical change, it was found that the annual mean ground level and deposition rate were 158.8 mm and 0.43 mm/day and all parts except the northern part of Jinudo had the active topographical changes and a tendency to annually deposit. From vertical distribution of SS net fluxes, The depth averaged values of latitudinal and longitudinal SS net fluxes(SS_{LH} and SS_{LV}) during spring tide were estimated about 28.0 kg/m²/hr (eastward) and 11.1 kg/m²/hr (northward), respectively. It was found that SS_{LH} was 2.5 times higher than SS_{LV} . The maximum SS net flux was estimated to be about 39.7 (eastward) and 9.1 kg/m²/hr (northward) at the 3 m depths. Those during neap tide were estimated about 4.8 kg/m²/hr (eastward)

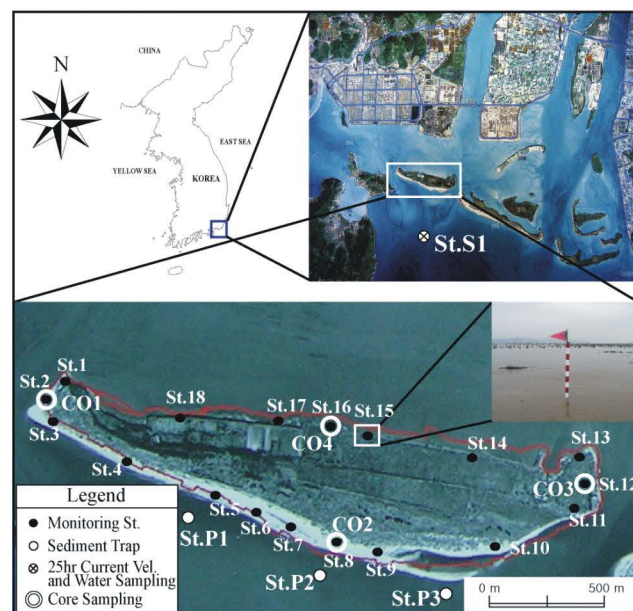


Fig.1 The geographical location and field survey Stations of Jinudo in the Nakdong river estuary, Korea