Establishment of the Map Database on Wetland Soil Environment and Vegetation Distribution in Southwestern Coastal Wetlands of Korea

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To establish the map database on wetland soil environment and vegetation distribution by Geographic Information System after constructions of the Kumho Seawalls in southwestern coastal wetlands of Korea, the maps of soil organic matter, total nitrogen and sodium content and wetland potential natural vegetation were drawn. Soil organic matter and sodium content were lower in reclaimed area near the land side than near the lake side. Soil sand and total nitrogen content were lower in the outside of the Kumho Seawalls and those of reclaimed area near the land side were higher. In the distribution of wetland potential natural vegetation after constructions of the Kumho Seawalls, Phragmites communis community will be distributed in reclaimed area near the land side in which fresh water is streamed and Suaeda asparagoides, Salicornia herbacea and Suaeda japonica communities distributed from the land side to the lake side.

Growth and decomposition of Suaeda japonica in a salt marsh

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Seasonal changes of density and biomass of Suaeda japonica were investigated in Masan-Ri coastal wetlands near Mokpo from May to October, 1997 and decomposition rates of the plant were investigated, using litter bag of leaf, stem and root at the three locations of above-ground, surface and below-ground for 18 months. Density were highest in May (1088 ind/m²) and then decreased significantly and kept constant after July. Biomass increased after July and approached to maximum value of 724g/m² in September. Litter decomposition rate was increased in order of below-ground > surface > above-ground by each location and was leaf > stem > root by each organ. After 18 months, percentage of dry weight remaining of leaf, stem and root at below-ground location showed 0, 14 and 45%, respectively.