waters - control, addition of floating coir mat in the size of 20×20 cm, and addition of floating mat planted with four plants of *I. pseudoacorus*. During the incubation of 7 days the removal percents of total-N were 66% in the microcosms with floating mat and 90% in those with floating island of *I. pseudoacorus*. The removal percents of total-P were 54% in the microcosms with floating mat and 61% in those with floating island. The daily removal rates of plants were decreased from 294 $\mu g\ g^{-1}$ DM day^{-1} to -87 $\mu g\ g^{-1}$ DM day^{-1} for total-N and from 4.0 $\mu g\ g^{-1}$ DM day^{-1} to -0.4 $\mu g\ g^{-1}$ DM day^{-1} for total-P during the incubation. Our results showed that the artificial floating islands could be applied as a useful eco-technique to restore water quality of aquatic ecosystems such as ponds, lakes, and reservoirs.

B539 Plant Community and Restoration of Nanjido, a Representative Nonsanitary Landfill in South Korea

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Vegetation and soil analysis of Nanjido, a representative nonsanitary landfill in South Korea were conducted to investigate the colonization status of plant community and to suggest restoration alternatives by comparing it with near by forest control sites. The vegetation of Nanjido was surveyed by quadrat method(size: 10×10 m^2) and sand, silt, clay, pH, electric conductivity, organic matter, total-N, P, K, Ca, and Mg of soils were quantitavely analyzed. The coverage of all recorded species were ordinated by soil chemical variables through CCA(Canonical Correspondence Analysis). Commonly found tree species(appeared in all quadrats of Nanjido landfill) were *Salix babylinica*, *Platanus orientalis*, *Rosa multiflora*, *Prunus persica*, *Albizzia julibrissin*, *Indigofera pseudo-tinctoria*, *Robinia pseudo-acacia*, *Amorpha fruticosa*, *Ailanthus altissima*, *Forsythia koreana*, and *Paulownia tomentosa*. *Quercus mongolica* as a late successional species were recorded in Nanjido landfill. The amount of pH, electric conductivity, P, Ca, and Mg in soils of Nanjido landfill was significantly greater than that in soils of control sites($P < 0.05$). In CCA ordination space, Nanjido sites were clustered in less acidic soils rich in Ca and Mg contents while control sites in acidic soils in poor in P contents. therefore, the study results shows that landfill sites are changed to a stable late succession stage if soil chemical contents of landfill sites transformed into that of control sites.

B540 Studies on Effect of Topographical Features on Distribution and Structure of Vegetation in Korean Peninsula

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By using DEM and digital actual vegetation map with MGE GIS software program, this study aims to clarify quantitative characteristics of topography(altitude, aspect, slope, latitude etc.) and climatic factors(WI, CI, PE etc.), and their relationship with actual vegetation map in Korean Peninsula. And, their major results are as follows; Warmth Index decreases 5.27℃.month along latitudinal 1degree increase, and 3.41℃.month along altitudinal 100meters. And then, climatic factors are characterized with WI of 37.0~121.0℃.month range, CI of -84~4℃.month range, PE of 459.2~820.0㎜/yr range in S. Korea. The major forests are characterized with WI43.0~108, 56~115, 72~121℃.month, CI-77~-8, -64~-1, -47~4℃.month, PE 697~764, 540~795, 606~819㎜/yr, annual mean temperature 2.2~13.3, 4.3~14.5, 7.0~15.4℃ range in *Abies koreana*, *Quercus variabilis*, *Pinus thunbergii* respectively.