

**B428**            **The Analysis of Relationships between Riparian Vegetation Patterns and Environmental Factors**

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An investigation was conducted to detect the relationships of the environmental factors and the species richness patterns. In this study, the phenology of vegetation and spatial vegetation distribution were analyzed in relation to environmental conditions. Vegetation type was distinguished in growing season, in particular *Equisetum arvense* and *Cardamine flexuosa* were dominated in spring. However *Humulus japonicus* and *Persicaria thunbergii* displaced the previous species. Habitat conditions were changed also from xeric to mesic and spatial patterns of vegetation were diversified. These results were primarily due to the differences of soil water contents. Diversity of species was the highest on middle sites in transectional distance from waterflow, in riparian zone. This indicates that co-occurrence of species was higher in moderate environmental conditions of habitats than in those of other extreme habitats.

**B429**            **Distribution of Heavy Metals in Sediments and Gastropod *Littorina brevicula* of Onsan Bay, Korea.**

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The concentrations of cadmium, copper, zinc and lead in sediments and *Littorina brevicula* were investigated at Onsan bay. The concentrations of cadmium, copper, zinc and lead in sediments showed the ranges of 0.08-7.16, 2-258, 96-1087 and 52-430  $\mu\text{g/g}$ , respectively. There were ranges of 0.11-11.81, 21-133 and 29-96  $\mu\text{g/g}$  in the concentrations of cadmium, copper and zinc in *Littorina brevicula*. The concentrations of cadmium, copper, zinc and lead in sediments and *Littorina brevicula* showed relatively high in the vicinity of Daejeong stream. This indicates that heavy metals distribution in Onsan bay was dominated by the input from Daejeong stream.