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**Report of the 8th INTECOL Congress and the Establishment of East Asian Federation of Ecological Societies (EAFES)**

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This paper is about successful report of the VIII International Congress of Ecology held during the period of August 11-18, 2002 in Seoul, Korea. The congress also contributed in catalyzing interdisciplinary research, technology transfer, and public awareness on the importance of "Ecology in the Changing World". In addition, governmental officials and academic leaders in Korea had chances to acquire valuable information needed to develop domestic research policies in preservation and sustainable management of ecosystems. In total, 1,623 ecologists from 57 countries registered and more than 2000 Korean people including public general attended at the congress and made it a successful event in the history of INTECOL. 1,262 papers of oral and poster presentations were included. At the final stage of the Congress, "World Ecologists' Declaration for the Harmonious Living of Human Beings and Biosphere in the 21st Century: Seoul 2002"was announced and the congress participants unanimously urged the world community to enhance such ecological research for the next generations to come. East Asian Federation of Ecological Societies (EAFES) was formulated with joint endeavors among the national Ecological Societies of Korea, Japan, and China. The importance of long-term ecological monitoring and research in multi-scales was especially emphasized.

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**Distribution Patterns of Hydrophytes According to the Environmental Factor at the Four Streams of Kunsan Areas**

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This study was investigated distribution patterns of hydrophytes with the land use and amount of pollutant loadings, water quality and soil physical-chemical factors at the 4 stream which are located in Kunsan areas (Eaeun-stream, Mije-stream, Gyeopo-stream, Guam-stream) from April 2002 to June 2003. As a result, vascular hydrophytes and hygrophytes were distributed total 50 families 150 species. Hydrophytes species were composed of Guam-stream 16 families 28 species, Eaeun-stream 14 families 20 species, Gyeopo-stream 11 families 17species, Mije-stream 11 families 16 species. Hydrophytes communities were classified in to 15 communities : *Certophyllum demersum* community, *Potamogeton crispus* community, *Lemna paucicostata* community, *Phragmites communis* community, *Paspalum distichum* community, Miscanthus sacchariflorus community etc.The values of similarity index amongthe streams sites are highest between the Mije-stream site 3 and Gyeopo-stream site 3, lowest between Gyeopo-stream site 2 and Gyeopo-stream site 3. Distribution of hydrophytes were closely related to the growth environmetal factors(pollutant loadings, water quality and soil physical-chemical factors) of the four streams.key words : environmental factor, distribution of hydrophytes, four steam of Kunsan region.

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**The Effects of Landfill-leachate Flooding on the Growth of Selected Populations of *Phragmites australis* in Korea**

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*Phragmites australis* is the most frequently used species in constructed wetlands (CW). This study intended to investigate the effects of waste landfill leachate on the growth of *P. australis* in Korea. Our study was carried out in a pilot-scale constructed wetland and pilot reed consisted of populations from 8 sites throughout Korea. The experiments were conducted at two different conditions: one was treated with leachate and the other diluted by ground-water as a control. Several morphometric parameters were examined. It was proved that flooding with leachate significantly influenced the growth of reed. Shoot growth, biomass and chlorophyll content grown on the pilot treated with leachate were greater than those of the control treatment. Usually, the populations from landfill sites and salt-marshes showed better growth and higher chlorophyll content than other populations when grown in the leachate pilot. Also, Total-N concentration of the reed on the pilot treated with leachate was higher than the control, but Total-P and Total-K concentrations were lower in the pilot than in the control.

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**The Estimation of the Pollen Germination Rate, Tube Length and Malformation Rate of Population of *Pinus thunbergii* Transplanted in an Industrial Area**

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The purpose of this research is to examine and compare the environmental adaptation of *Pinus thunbergii*, which were transplanted in an industrial area in Ulsan. The research contain the observation of the germination rate, tube length and malformation rate of six population from Ulsan and one population from Youchun, Seosin. The population from Youchun and Seosin were transplanted to the Ulsan industrial area six years ago. The same observations were done near Mt. Chilbo in Suwon, where three population from Ulsan and one population of Youchun were transplanted. The results of this research show that three population from Ulsan have a higher germination rate, longer tube length and lower malformation rate than other population, which were transplanted to Ulsan. The comparison of the population from Ulsan and Suwon show that the population of *P. thunbergii*transplanted in the Ulsan industrial area have a higher germination rate, longer tube length and lower malformation rate than the populations transplanted from Ulsan to Suwon.