

B527 The Effect of Temperature and Organic Matter Addition in Sediment
Slurries of *Zizania latifolia* Wetland in Reservoir Paltangho

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Wetlands are an important source in the global budget of atmospheric methane which has a significant impact on climate changes. Methane productions were examined at different temperatures and organic matter addition in sediment slurries of *Zizania latifolia* wetland in Reservoir Paltangho, Korea. The effect of organic matter was studied by addition ground litters of *Zizania latifolia* at 10°C and 30°C. Methane production rates at different temperatures of 0°C, 10°C, 20°C, 30°C and 40°C were 0.02, 0.03, 0.10, 0.31 and 0.83 $\mu\text{mol h}^{-1} \text{g}^{-1}$ dry wt. sediment, respectively. The difference of methane production rate between addition and non-addition of organic matter at 30°C was markedly bigger than that at 10°C. The effect of temperature was increased according to increasing temperature and temperature amplified the effect of organic matter addition.

B528 Comparisons of Wetland Plant Communities and Environmental Factors
in the Lagoons of the East-sea, Korea

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The lagoon wetlands located in coastal line function as a special habitat for fish and waterfowl. The structure of plant communities and environmental factors of lagoons are mainly determined by volume of seawater inflow. This study was conducted in seven lagoon wetlands along the seashore of East-sea in Korea. The salinity of water had a wide range of 0 to 13 ‰. The studied lagoons could be classified to two groups; one having lower salinity was Ssang-Ho, Kwangpo-Ho, Osan beach lagoon and Mea-Ho, the other having higher salinity was Hwajin-Po, Songji-Ho and Kyungpo-Ho. The range of pH was 5.36 to 7.86, electric conductivity was 4 to 559 in the fresh sediment. These values were very higher in the higher salinity group than in the lower salinity group. The major plant community was *Phragmites australis* along the littoral zone of the lagoons. The lower salinity group of lagoon wetlands showed higher species diversity than the higher salinity group.