

PA-18.

Seasonal Variation of Periphyton Communities in the Upstreams of the Dam of Peace, Korea

Choi Hwan-Seok, Choi Min-Kyu, Baik-Ho Kim¹

Institute for Environmental Science, Wonkwang University, Iksan 570-749, Korea

¹Department of Life science, Hanyang University, Seoul 133-791, Korea

Flora and seasonal variation of the periphyton communities were studied at five sites in the mountainous streams of the Dam of Peace, Korea, from June to November 2003. The attached algal communities comprised totally 76 taxa belong to the 5 classes. In species composition, diatoms and green algae overwhelmingly dominated the community although their standing crops were low. During the survey period, the major dominant species were *Navicula gregaria* and *Navicula pupla* var. *capitata*, as 11.7% and 8.9% of total standing crop, respectively. Other subdominant species were *Scenedesmus ecornis* and *Spirogyra weberii* in green algae, *Cymbella affinis*, *Cymbella minuta*, *Fragilaria capucina*, *Melosira varians*, *Navicula cryptocephala*, *Navicula exigua* var. *capitata*, *Navicula gregaria*, *Nitzschia sublineari* in diatom. In their appearances, *Scenedesmus* and *Oscillatoria* were occurred in summer, *Cymbella* and *Fragilaria* in autumn, and *Nitzschia*, and species *Spirogyra weberii* in winter, respectively. The water quality by species diversity indicated that the upstreams of the Dam of Peace were ranged from oligosaprobic to -mesosaprobic.