

B401 Ecological Studies on Daechung Reservoir(- '96)

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Daechung Reservoir was constructed in 1980 to supply drinking water, irrigation water, electricity and flood control. Water quality, the composition of phytoplankton, zooplankton and microorganisms were reviewed from the papers and reports published until now. The information about the ecological composition and function of Daechung Reservoir was not enough. Even if there are some, they are fragmentary and inconsistent. Few years after construction, the water in the Reservoir became more and more eutrophic and algal bloom was pronounced every summer. The nitrogen content in the reservoir is more than 1.5 mg/L and has been hypertrophic throughout the year. Since 1988, the total phosphorus content in the water has been increased and eutrophic. Chlorophyll "a" content which is the best indicator of the algal bloom was 22ug/L in 1988 and is still increasing with time. It is proved that secchi depth is a good indicator of eutrophication in Daechung Reservoir. Since 1988, the secchi depth has been decreasing.

B402 Epilithic Algal Community in Streams Neighboring Two Artificial Hot - Springs in Chollabuk-Do Province.

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This study was performed to effects of thermal gradients of artificial hot spring wastewaters on freshwater epilithic algal community. This survey was examined at seasonal from January to April, 1997 in thirteen sampling stations of streams neighboring two artificial hot springs in Chollabuk-Do province, Korea.

The algae 92 taxa were classified and composed of 5 Classes, 1 Subclass, 13 Orders, 6 Suborders, 19 Families, 11 Subfamilies, 39 Genera, 77 Species, 12 Varieties and 3 Forma. In species composition, Blue-green algae and Diatoms were dominated 77.2 percentages of total and their stanging crops were very high, respectively. The Blue-green alga, *Synechocystis thermalis* was first dominant species at which were affected by those thermal wastewaters. The Diatom, *Navicula cryptocephala* was dominant species at which not affected.