

B413 시화호에서 식물플랑크톤 개체군 변화

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신도시 근교에 위치한 인공시화호 상류부터 배수갑문까지 97년 1월부터 98년 12월까지 매월 식물플랑크톤 개체군 변동을 조사하였다. 우점종으로 볼 때 식물플랑크톤 종조성은 규조 *Cyclotella atomus* 등 *Cyclotella*속에서 *Chaetoceros decipiens*, *Skeletonema costatum*으로, 남조 *Microcystis* spp.와 녹조 *Selenastrum capricornutum*은 와편모조 *Dinophysis acuminata*, *Gymnodinium mikimotoi*, *G. sanguineum*, *Gyrodinium spirale*, *Prorocentrum minimum*, 라피도조 *Heterosigma akashiwo* 및 유글레나조 *Eutreptiella gymnastica*로 대체되었다. 이 중에서 *P. minimum*과 *H. akashiwo*는 해수유입 후에 크게 증가함을 볼 수 있었고, 은편모조 *Chroomonas* spp.는 연중 관찰되었다. 본 연구에서 식물플랑크톤 개체군 변화는 해수 유입으로 인한 염분도 증가가 주 요인으로 분석되었고, 장차 기수 내지는 해양성 조류가 우점할 것으로 보여진다.

B414 The Blue-Green Algal Development in Mulgum (the Nakdong River) and Heo-Dong Reservoir

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The blue-green algal development in Mulgum (the Nakdong River) and Heo-dong reservoir, supplies of drinking water for Pusan and Kyungnam region, were compared from June to August 1999 on weekly basis. Average monthly precipitation during this period (400 mm) was much higher than that of the previous years (225 mm). Phytoplankton biomass (chl. *a*) was affected by the frequency and magnitude of precipitation patterns in both sites (Mulgum: 5~23 mg/ℓ, Heo-dong reservoir 3~36 mg/ℓ). Phytoplankton succession at Mulgum and Heo-dong reservoir showed a similar pattern. At both sites, blue-green algae including *Microcystis* spp. first appeared in early June. The Phytoplankton biovolume was reduced and was maintained at relatively low level as a result of frequent rainfall (June~early August). The abundance of *Aphanizomenon* sp. reached its peak in July at Mulgum. The phytoplankton biovolume began to increase in August. But the mean phytoplankton biovolume of blue-green algae in Heo-dong during the rainy season ($3.5 \times 10^7 \mu\text{m}^3/\text{ml}$) was much higher than that of Mulgum ($0.2 \times 10^7 \mu\text{m}^3/\text{ml}$).