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Phytoplankton flora and their succession in the lower parts of the Nakdong River

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The phytoplankton in the lower region of the Nakdong River and its neighbor rivers were investigated to elucidate the floral diversity and the seasonal succession from 1998 to 2001. Approximately 200 phytoplankton taxa were encountered and their seasonal variation was clear in the eutrophic freshwaters. The floral richness gradually increased from winter to summer and was peaked in August. Floral richness of phytoplankton was negatively correlated with the cellular biomass or standing crops. Phytoplanktons had rich species and lower cell numbers in warm season, while lower species richness and higher cell numbers in cold season as stable environments. The important phytoplankton were 40 species and the seasonal variations were monitored with centering around the important species. The spring period was dominated by small diatoms *Stephanodiscus* and *Rhodomonas* cryptomonads, in summer algal blooms dominated by cyanobacterias such as *Microcystis* and *Oscillatoria*. In spring and autumn, chlorophycean algae and large diatoms were most rich to show the diverse compositions of phytoplankton. *Skeletonema* population (*S. potamos* and *S. subsalsum*) may be first recorded in the floristic sense and the bloom events in the downstream of the Nakdong River.