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Seasonal variation of Attached Diatoms community in the Hantan River

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This study was investigated to the seasonal variation of attached diatoms communities in the Hantan River in November 2001, February, Ma and August 2002. It was identified the total 107 taxa which were composed of 95 species, 11 varieties and 1 unidentified species. The standing crops ranged $298,500 \sim 4,776,000 \text{ cells} \cdot \text{cm}^{-2}$ and showed marked irregularly seasonal variations. It was higher value at the lower station than the upper station in fall. But it was similar values from the upper to the lower station by the effect of typhoon in summer. Chlorophyll concentrations ranged $13.4 \sim 304.2 \mu\text{g} \cdot \text{cm}^{-2}$. Standing crops and chlorophyll showed similar trends during investigation. Low diversity index values probably indicated the effects of environmental stresses(water temperature, flow and current velocity) other than organic pollution. An assessment of organic pollution using epilithic diatoms(DAIpo) was α -oligosaprobic states at the upper and mid stations, and was α -mesosaprobic states at the lower stations.

Key words: epilithic diatoms, chlorophyll-a, DAIpo,, diversity index.