

PP 009

## Abundances of various-sized plankton communities during algal bloom seasons of Lake Juam 2000

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Various-sized planktons, bacteria, picocyanobacteria, autotrophic nanoflagellates (ANF) and heterotrophic nanoflagellates (HNF), ciliates, zooplankton were examined in Lake Juam during the summer algal blooming season. Seven phytoplanktons, such *Anabaena*, *Oscillatoria*, *Aphanothece* and *Microcystis* in cyanobacteria, *Cyclotella* and *Aulacoseira* in diatom, and *Cryptomonas*, dominated the algal community, occupied approximately 90% of total in biomass. Majority of cyanobacteria gradually increased with the time, while some of these decreased (e.g. *Anabaena*). Of these, *Anabaena* and *Microcystis* showed the highest peak in St. 2, while the former weighed in the Dam site and the latter in the inflowing site, respectively. A bloom of *Microcystis* distinct in the shallow station of lake, St. 2 and 3 in July-August and they remained to the late summer. Bacteria, picocyanobacteria, ANF and HNF in three lake stations gradually increased with water temperature, while they increased towards on lakes 3 and showed the peaks in July and August. Little ciliates showed during the study, even though few appeared in July. Zooplankton community was mainly dominated by rotifers, in particular, they highly distributed in the inflowing point. In particular, zooplankton except the rotifers hardly showed in the Dam site, although the relative composition ratio still sustained even in the inflowing site. *Copepods* comparatively low during the warm season, even slightly increased later. Animal *Cladocera*, Naupli and Protozoa also showed a similar pattern in abundance and distribution. The relation between plankton and water environment were discussed.