

Zooplankton Community Dynamics in a Weir Reach of an  
Agricultural/Urban Stream (Yangsan stream, 1994-1997)

장광현\*, 김현우, 하경, 주기재  
부산대학교 자연과학대학 생물학과

Zooplankton community dynamics in a weir reach of the Yangsan stream, 4th order stream, was studied from Jan. 1994 to Dec. 1996 on biweekly and monthly basis. Small zooplankton including rotifers and cyclopoid nauplii occupied about 80% of total zooplankton biomass. Among rotifers, *Brachionus calyciflorus* and *B. urceolaris* were most common species (over 50% of total rotifer abundance). In fall, high abundance of small cladocerans *Moina* spp., was repeatedly observed ( $N_{\max} = > 3000$  ind./l, fall in 1996). The abundance of *Moina* spp was considered to be affected by frequent change in discharge within the weir during summer. The total abundance of cyclopoid copepoda was very low (4%), whereas that of nauplii was relatively high (20% of total zooplankton abundance and biomass). The zooplankton community of weir reach of the polluted agricultural/urban stream was dominated by rotifers throughout the study period. During summer, density of small cladocera was high.

Spatial Distribution and Seasonal Changes of Zooplankton  
Community in the Woopo Wetland

최상호\*, 김중곤, 장민호, 주기재  
부산대학교 자연과학대학 생물학과

Spacial distribution of zooplankton community was studied at the Woopo wetland (5~12 sites at Woopo, Sajipo and Mokpo) in summer of 1997 and fall of 1998. Abundance and dominant species at each site were distinctive depending on the various development of aquatic vascular plants. Strong heterogeneity was also observed even at the same wetland. Heterogeneity of zooplankton distribution was primarily caused by the presence of submerged macrophyte and corresponding conditions of physico-chemical environment. Seasonal changes of zooplankton community have been investigated from May 1995 to Oct. 1998 on biweekly and monthly basis. The total 82 species of zooplankton were indentified and rotifers (e.g., *Keratella cochlearis*, *Polyarthra vulgaris*, *Brachionus angularis* and *Brachionus calyciflorus*) were dominant throughout the study period. The seasonality of the zooplankton community was not strong. However, low density of zooplankton community was observed during the active growth (May~Oct.) of floating vascular plants (*Spirodela polyrhiza* and *Salvinia natans*).