

BP-24

Leaf Litter Breakdown of Emergent Plants in the Lower Nakdong River

Kim, Gu-Yeon¹, Hae-Soon Yoon²,
Geon-Seong Shin², Hyun-Woo Kim³ and Gea-Jae Joo¹

¹Dept. of Biology, Pusan National University, Busan, 609-735, Korea; ²Dept. of Biology, Dong-a University, Busan, 604-714, Korea; ³Dept. of Environment Education, Suncheon National University, Suncheon, 540-742, Korea

Leaf litter breakdown rates of the *Phragmites communis*, *Zizania latifolia* and *Typha angustata* were determined at the lower Nakdong River from Nov. 1998 to Sept. 1999 and the correlation between leaf litter breakdown and abundance aquatic invertebrates was investigated. Aquatic invertebrates collected in the litterbags were 11 family, 11 species (mean density: 222 ind./m², n = 792), and the dominant species was Chironomidae. Mean density of Chironomidae in the litterbags was *Z. latifolia* (density: 180 ind./m², n = 264) *T. angustata* (density: 187 ind./m², n = 264) *P. communis* (density: 95 ind./m², n = 264). The breakdown of *Z. latifolia* (50% breakdown rate: 123days) at floating layer was the shortest, and that of *T. angustata* (228days) was shorter than *P. communis* (286days). Overall, the breakdown rate at floating layer was faster than that of submerged layer in all of three species and differences of the breakdown rate between open bags and closed bags were not found.

Key words : breakdown rate, aquatic invertebrates, Chironomidae, *Phragmites communis*, *Zizania latifolia*, *Typha angustata*