

## SPECIES COMPOSITION OF BENTHIC MACROINVERTEBRATE AND WATER EVALUATION AT THE JUNGCHEON STREAM IN KOREA

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### ABSTRACT

This study was conducted to investigate water quality evaluation using benthic macroinvertebrates at a mountain torrential river (Jungcheon stream). From the four seasons survey, the identified benthic macroinvertebrates were 1,171 individuals belonged to 34 species, 30 families, 13 orders, 6 classes and 4 phyla. As the average results of four surveyed sites, the dominant species was *Culicini* sp. exhibited greatest individuals (219) and second species was *Asellidae* sp. The value of dominance index (DI) was a mean of 0.174. Total ecological score of benthic macroinvertebrate community (TESB) was varied from 64 (St. A) to 41 (St. D) with a mean of 51. Average ecological score of benthic macroinvertebrate community (AESB) was varied from 1.952 (St. D) to 2.783 (St. A) with a mean of 2.338. Benthic macroinvertebrate index (BMI) was a mean of 39.756. The species diversity index (H') showed the highest as 2.614 at St. C and the lowest as 2.195 at St. A. Evenness indices (E2-E5) except E1 were different from each other, there were shown significant differences ( $p>0.05$ ).

**Keywords:** Benthic macroinvertebrate index (BMI), dominance index (DI), Jungcheon stream.