

## **Characterization of Exocrine Gland and Its Secreted Proteins Structural Materials of Caddisfly, *Hydropsyche* sp.; Trichoptera**

**Sang-Chan Park<sup>1</sup>, Jai-Hoon Eum<sup>1</sup>, Seok-Woo Kang<sup>2</sup>, and Sung- Sik Han**

*<sup>1</sup>Graduate school of biotechnology, Korea University Seoul 136-701, Korea  
and <sup>2</sup>Rural Development Administration, Suwon Gyeonggi-do, Korea*

The products of exocrine gland as structural materials are used for its nest under water. These proteins are of scientific and technological interest because it is formed, durable in the presence of water. The whole body structure of caddisfly larva was studied by paraffin embedded sections. The exocrine glands of caddisfly were composed of one pair and were shown to 'Z' shape. And the cells of exocrine gland could be removed by the methanol/water treatment. Thus only the secreted protein products of exocrine gland could be separated. These separated proteins were used in SDS PAGE, 2D PAGE and N-terminus amino acid sequencing. The objectives of this study were to describe 1) a location of exocrine gland for structural materials 2) a 2D PAGE patterning of its secretions and 3) its partial purification and characterization.