

**Effect of Periphyton Level on the Conspecific Case-Mounting Behavior of Larval *Glossosoma intermedium* (Trichoptera: Glossosomatidae)**

by

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**ABSTRACT**

*Glossosoma intermedium* are highly efficient grazers of periphyton and can be found in extremely high densities. These aquatic insects are considered keystone herbivores because they strongly regulate the periphyton community. Their ability to reach high densities combined with their grazing efficiency limits available periphyton resources for grazing macroinvertebrates, including *Glossosoma*. Through field and laboratory studies it has been observed that larvae mount the cases of conspecifics. It is hypothesized that the larvae are foraging for periphyton on the cases of conspecifics; a response by the larvae to decreased resource availability. This hypothesis was tested by a series of laboratory experiments with *G. intermedium*. *G. intermedium* were collected from a local stream and observed using time-lapse photography to analyze the mounting behavior of these invertebrates on unglazed quarry tiles that were either colonized with algae or bare (periphyton absent). Results show that the proportion of larval mountings increased on tiles without periphyton. Also, the average mounting time was higher on tiles without periphyton. As predicted, these results indicate a preference by the larvae to mount when resource levels are low.