POSTER PRESENTATION

SELECTIVE GRAZING OF SEDIMENT DIATOMS BY CHIRONOMID LARVAE IN WEST LAKE OKOBOJI, IOWA

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Diatoms are a key food source for macroinvertebrates. Consumption of diatoms alters their community structure, function, and resource availability to grazers. The objective of this study was to assess the grazing selectivity of chironomid larvae for sediment diatoms. A dredge sample was collected from 9.1 m depth in Miller's Bay in West Lake Okoboji, Iowa. A sample of the top 1 cm of sediment was removed as a representation of chironomid food source, and chironomid larvae (n = 13) were removed from the bulk sediment by screening. Diatoms were processed from the intestinal tracts, assigned operational taxonomic unit numbers, and enumerated. Of the 10 most abundant taxa in the sediment, 5 of those taxa were found in the chironomid gut contents, mainly consisting of centrics and araphids. In particular, both *Stephanodiscus minutulus* and *Fragilaria vaucheriae* collectively composed almost half of the diatom assemblages in the guts. There were 15+ diatom taxa found in the intestines that were not found in the sediment (relative abundance <10%). Future work includes investigating the relationship between grazers' body size and size of diatoms consumed and seasonality of macroinvertebrate diets.