

## **Benthic Macroinvertebrate Assemblages in the Near Coastal Zone of Lake Erie.**

SCHAROLD, J.V., YURISTA, P.M., KELLY, J.R. and CORRY, T.D., US EPA Mid-continent Ecology Division, 6201 Congdon Blvd., Duluth, MN, 55804.

Benthic macroinvertebrate assemblages have been used as indicators of ecological condition because their responses integrate localized environmental conditions of the sediments and overlying water. Assemblages of benthic invertebrates in the near coastal region are of particular interest, because they are expected to be the first impacted by anthropogenic stressors, and effects are expected to be greatest in that region. We conducted a survey of benthic invertebrates in the US shallow near shore zone of Lake Erie during August 2009. Forty five sites were selected in the region 0-5 km from the shoreline using a probability-based survey design. Benthic macroinvertebrates were collected using a standard Ponar grab. The dominant taxonomic group was dreissenid mussels, with a mean density of  $7875 \pm 1933$  (SE)  $m^{-2}$ . Other major taxa included oligochaetes ( $2681 \pm 530$   $m^{-2}$ ) and chironomids ( $909 \pm 226$   $m^{-2}$ ). Mean density of the burrowing mayfly *Hexagenia* was  $111 \pm 50$   $m^{-2}$ . Correlation of benthic invertebrate assemblage metrics with landscape measures of anthropogenic stress in the adjacent coastal watersheds will be analyzed using multivariate stepwise regressions.