

Title: Lake Ontario: Nearshore variability

Authors: Yurista, Peder M//Kelly, John R//Miller, Samuel E//VanAlstine, Jon

Location: International Association for Great Lakes Research, 2010, Toronto, ON, Canada, May 17-21, 2010

Type: Oral presentation

Abstract:

We conducted a high-resolution survey with towed electronic instrumentation along the Lake Ontario nearshore (720 km) at a 20 meter contour. The survey was conducted September 6-10, 2008 with a shorter 300 km survey conducted August 14-15 for comparing of temporal variability. Along the survey track we also sampled fixed stations (17 and 6) to collect calibration data and other parameters not observed by the in situ electronic sensors. The survey supported a coordinated effort among US and Canadian agencies to sample Lake Ontario in 2008. The towed sensors provided information on spatial variability in the nearshore. Correlation of nearshore data with respect to landscape characteristics of the adjacent coastal watersheds (US only) was analyzed using multivariate stepwise regressions. The strongest correlation to the landscape among the nearshore data was from specific conductivity, beam attenuation and chlorophyll (r^2 of 0.50, 0.42 and 0.41 respectively). This survey established a comprehensive baseline data set for Lake Ontario nearshore.