Metadata for Benthic Invertebrate Community (Great Lakes nearshore areas)

This table provides essential information about the program data.

Dataset Title	Benthic Invertebrate Community (Great Lakes nearshore areas)
Abstract	The objectives of the Great Lakes Nearshore Long-term Monitoring Network are to identify temporal trends in the nearshore of the Great Lakes, to use the information in identifying lake-wide or regional changes in environmental conditions, and to establish sites removed from major point-source influences in each of the Great Lakes such that the data collected at the sites may be used as a reference when assessing environmental conditions at physically similar sites. Information on the status and trends of environmental conditions are essential for the management of sediment and water quality on local to regional scales. The success of, the need for refinement of, or the continued need for management of programs cannot be adequately assessed without feedback derived from appropriate monitoring. Through-time monitoring allows us to identify the onset of anomalous patterns or document changing conditions due to stressors in the environment. A long-term monitoring station approach enables us to identify predominating stressors and their potential impacts in areas of the Great Lakes. Stations have been selected to reflect a combination of conditions along the nearshore, ranging from overall background-like conditions to areas with a natural integration of stressors such as delta zones of rivers, depositional zones of embayments, and areas where prevailing water circulation patterns focus stressors. Surveys are typically conducted in one of the Great Lakes basins (including connecting channels) in each year of a 3 to 6 year cycle. Approximately 15-20 stations are surveyed annually. Sampling occurs approximately every three years in Lake Ontario and Lake Erie and every six years in Lake Superior and Lake Huron. The shorter sampling interval for the lower lakes reflects the higher level of anthropogenic stress on the lower lakes compared with the upper lakes. The sampling protocols employ standard Ministry methodology, thereby permitting comparisons with historical and ongoing data collections elsewhere in the Ministry. The composition of the benthic invertebrate community at a sampling station is used as a biological indicator of trophic status and general environmental condition to help understand Great Lakes ecosystem function, structure and change. Composition of benthos integrates stress effects over time. In most cases 5 replicate samples were collected at each station. A nine-inch Ponar grab and 600 µm mesh bag were used. The sample (with remaining sediments and plants) was washed into labelled jars and preserved with 10% formalin (by volume) buffered to pH 7. The benthic invertebrate identification and enumeration was completed by external contractors. These data are provided "as is" without warranty of any kind, whether express or implied. MECP assumes no responsibility for errors or omissions in any of the datasets contained on this website, and specifically disclaims any express or implied warranties related to the use of this webpage and all contents including, without limitation, warranties of non-infringement or fitness for any particular purpose.
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Geographical Bounds	West bound: -93 East bound: -74.30798

	South bound: 40.6723 North bound: 49.3
Supplemental Information	Time Period: 2000-2007, 2009-2018 Keywords BENTHIC INVERTEBRATE, BENTHOS, GREAT LAKES, EMRB, ECOSYSTEM, LAKE ONTARIO, LAKE ERIE, LAKE SUPERIOR, LAKE HURON, ENVIRONMENTAL MONITORING, WATER QUALITY Accompanying datasets are available on Open data: Sediment chemistry: https://data.ontario.ca/dataset/sediment-chemistry-great-lakes-nearshore-areas Water chemistry: https://data.ontario.ca/dataset/water-chemistry-great-lakes-nearshore-areas
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