

Assessing benthic communities' health by the means of epibenthic indicators in Gulf and Estuary of St. Lawrence, Canada

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Management tools are needed to characterize the increasing numbers and intensities of stressors resulting from human activities that affect marine organisms. This project aims to create epibenthic indicators to qualify the health condition of Estuary and Gulf of St. Lawrence (EGSL) communities that are subjected to multiple anthropogenic stressors. There are many advantages to using marine macroinvertebrates in the development of health indicators. They are closely related to bottom sediments – where contaminants usually accumulate and where oxygen stress is more frequent. Most benthic organisms are also sessile, which means their health condition is a picture of the local environment quality. The aim of this project will be to first test the benthic indicators that have already been developed around the world with the epibenthic communities of the St. Lawrence. Second, we will develop new indicators for stressors that may not be covered by existing indicators for St. Lawrence communities. It is hoped that such indicators of epibenthic health will enable scientists and environmental managers to monitor the condition of the EGSL ecosystem over time.

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