

Cumulative impacts of anthropogenic stressors on macrobenthic communities at a bay-scale: an experimental approach

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Human activities such as maritime transport, fishing and aquaculture create environmental stressors affecting the structure and the functioning of benthic communities. While these disturbances can act individually, they can also act synergistically and lead to changes more difficult to predict. The bay of Sept-Îles hosts a harbour receiving the most important ballast volume in North America and represents one of the most eutrophic bays in the Gulf of St. Lawrence. This project is part of the Canadian healthy oceans network (CHONe II) and attempts to identify the effect of the interaction of anthropogenic stressors on the macrobenthic invertebrate communities in the bay of Sept-Îles. *In situ* and laboratory manipulative experiments will be conducted to determine the influence of stressors on biological responses when taken individually, and when these stressors interact through time at different intensities. In that way, these experiments will improve our knowledge of cumulated impacts of multiple stressors on the structure of benthic communities. It will also eventually contribute to species conservation and the management of maritime resources.

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