



# Measuring the perceived impact of pilot vessels on the Saint Lawrence River

Clara Féré<sup>1</sup> and Grant McKenzie<sup>2</sup>

<sup>1</sup>Platial Analysis Lab, Department of Geography, McGill University, clara.fere@mail.mcgill.ca

<sup>2</sup>Platial Analysis Lab, Department of Geography, McGill University, grant.mckenzie@mcgill.ca

Acting as a major route throughout North America, the Saint Lawrence (SL) River is a resourceful pathway economically, ecologically, and sociologically. Used mainly for transporting goods, people also enjoy leisure activities in this unique maritime environment. In recent years, concern has been expressed regarding vessels' speeds in the region, being the cause of incidents and creating bigger waves. Further interest is placed on the impacts from these enhanced waves on the local environment and population. These stem mainly from the pressure of ship-induced waves on erosion. The goal of this study is to explore the perception of impacts of the high wave vessel traffic on the SL from a local community perspective. This is done in the hopes of formalizing speed restrictions and reducing wave impacts in certain regions of the SL.

Through an online survey, administered in communities bordering the Saint Lawrence, we will evaluate and analyze the common perceptions around the impacts from high wave vessels. The focus will span from Deschaillons-sur-Saint-Laurent to Deschambault in Quebec where local actors seek to understand the roles of pilot vessels on waves. The questions will center on participants' perception of marine vessel movement along the river including coast impacts, speed, wave height, types of vessels, ecosystem impacts, infrastructures, and economic activity. Participants will include a wide range of different stakeholders in the local environment and the region to form a sample of size 100. Statistical and geospatial analysis will be applied to account for patterns of geographical regions, socio-economic and demographic status in the responses. These variables will be compared to the physical measurements of wave-inducing pressures from ships. These measurements, performed by an associate team of scientists, will allow to see the link between perceived and actual impacts.