

Estuary and Gulf of St. Lawrence underwater soundscape monitoring

Dates: January to December

Recurrence: Yearly, since 2008

Région: Estuary and Gulf of St. Lawrence

Navire: CCGS LEIM, CCGS Martha Black, Coriolis II, or chartered vessels

Description

This monitoring consists in recording sounds present underwater using hydrophones on different moorings types (e.g. autonomous subsurface I-shaped mooring, benthic platform, drifting-arrays, real-time system on Viking Buoys) and performing the detection, classification, localization of the sounds of interest and measuring their sound levels. After analysis, it is then possible to associate these sounds with their sources and estimate the density of the latter.

Objectives

1. Monitor populations of sonic species;
2. Reduce negative interactions between human activities and marine species;
3. Améliorer et optimiser la performance des systèmes acoustiques et leur couverture acoustique;
4. Publish reports and scientific articles; and
5. Inform the Ocean Soundscape Atlas (<https://soundscape-atlas.uqar.ca/>)

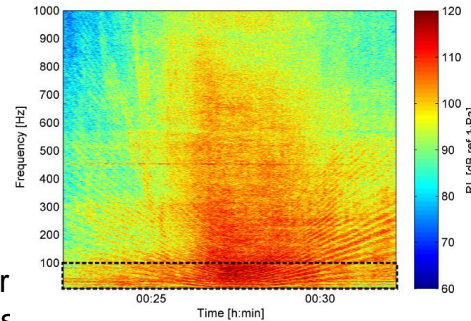


Figure 1: Map of 2024-25 acoustic moorings.

Legend: Underwater soundscapes recording systems :

- ▼ low-frequency <16 kHz
- high-frequency <128 kHz
- real-time low-frequency <8kHz

