

Summary

Transportation of goods by sea is a major component of Quebec's economy. In order to give shipping access, the St. Lawrence has been tamed with dams and locks, and construction of the shipping channel necessitated the dredging of millions of cubic metres of sediment, thus permanently altering the River's bathymetry, hydraulic dynamics, physical and chemical properties and habitats. The shipping channel, which takes up half the flow of the St. Lawrence, is today a fully integrated habitat in the River's physical structure. In spite of the paucity of available data, the shipping channel was long considered a desert zone in terms of wildlife. This perception is partly explained by the difficulty of safely sampling this part of the River, where the current runs fast and seagoing traffic is frequent. The research vessel *Lampsilis*, acquired by the Université du Québec à Trois-Rivières, has enabled the Quebec government department responsible for wildlife to explore a long stretch of the shipping channel and gain a better understanding of its use and importance in the life cycle of fish in the St. Lawrence. This report presents a preliminary description of the fish community inhabiting the shipping channel of the St. Lawrence River. In the course of this exploration, three other types of habitat were also sampled for purposes of comparison: the channel slopes, the natural trenches and the shoreline. The results show that the shipping channel is a habitat frequented by a diverse community of fish (27 species) distinct from those occupying the other habitats. In particular, the Lake Sturgeon, the Sauger, the Walleye and the Channel Catfish are widespread in deep habitats (channel and natural trenches). Our results further show that the deep habitats are used by the juvenile stages of several species, among them the Lake Sturgeon, Channel Catfish and American Shad. Lake Sturgeon 30 years old and over are mainly found in the natural trenches. This pioneering inventory of the fish of the shipping channel now raises the question of the coexistence of aquatic wildlife and marine traffic, a key issue for St. Lawrence fisheries in a context of sustainable development of the shipping industry. From the standpoint of conservation of biodiversity and sustainable management of species of interest to the fishery, the results of this first description highlight the importance of working to maintain a diversity of habitats in the fluvial stretch of the St. Lawrence.