

# THE MARINE PARK, an Exceptional Natural Environment

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Photo: Héliane Gilbert, Parks Canada



Mouth of des Petites Bergeronnes River



Saguenay-St. Lawrence  
MARINE PARK



Northern Red Anemone  
Photo: Francesco Di Domenico, Parks Canada

When the marine park was created, a section of exceptional marine ecosystems representative of the St. Lawrence Estuary and the Saguenay Fjord was given the status of protected marine area. The marine park covers 1,246 km<sup>2</sup>, includes the water column and seabed, and extends to the normal high tide line. The marine park is part of the network of National Marine Conservation Areas of Canada and the Parcs Québec network.

The local community's desire to protect the beluga was the original reason for the marine park and the catalyst for getting government and various groups together to create it. Preserving the park's biodiversity is thus at the heart of our concerns.

## The wealth of nature: astonishing species and ecosystems

The marine park receives the waters of the Great Lakes-St. Lawrence, Saguenay and Atlantic Ocean watersheds. The geographical centre of the marine park is situated at the confluence of three hydrological units: the upper estuary, lower estuary and Saguenay Fjord. A complex and turbulent zone, it is recognized as an ecologically exceptional region and is a natural meeting place for humans.

Cold-water upwelling at the head of the Laurentian Channel, an underwater canyon that starts in the Atlantic Ocean and ends at the mouth of the Saguenay River, is the dominant oceanographic process in the marine park. Twice daily as the tide comes in, masses of deep salty nutrient-rich water from the lower estuary are pushed to-



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ward the surface. This upwelling of cold water promotes the emergence of life and generates large concentrations of marine species at the bottom of the food web. The water is pushed forcefully into the upper estuary and the Saguenay, bringing with it plankton, nutrients and oxygen. The cold-water upwelling follows the rhythm of the tides and represents, as it were, the heart and lungs of the marine park.

The Saguenay Fjord is a unique environment in terms of the living conditions and species found there. It is one of the longest fjords in the world, the southernmost fjord in North America and one of the few fjords to flow into an estuary.

### Biodiversity, one of the main features of the marine park

Over 1000 plant and animal species are found in the marine park. Such biological diversity can be explained by the different ecosystems and habitats, the abundance of food, the boundaries of distribution zones of certain species and the presence of species of Arctic affinity. The park's biodiversity goes well beyond what is visible above the surface – birds, seals and whales. Several hundred species of kelp and benthic and pelagic animals have been observed in the marine park and are at the bottom of a complex food web governed by very specific oceanographic conditions.

### Marine mammals and birds - the most visible species

Two species of marine mammals live in the marine park all year round: the beluga, designated a threatened species in the Species at Risk Act, and the harbour seal. Over various times throughout the year, other species are attracted to the marine park by the nutrients offered by its ecosystems, including the blue whale, currently designated an endangered species, and the fin whale, Minke whale, harbour porpoise, harp seal and grey seal.

The marine park provides numerous bird species with excellent conditions for feeding, resting and over-

wintering. One is the Barrow's goldeneye, designated a species of special concern. The islands in the estuary have been recognized as important breeding sites for numerous species of birds.

### Landscapes that never cease to amaze

The marine park has a close connection to the regions and landscapes that surround it; the area is known for its beautiful scenery, and protection of the landscapes is shared by numerous groups. The Parc national du Saguenay has been protecting the shores of the fjord since 1983.

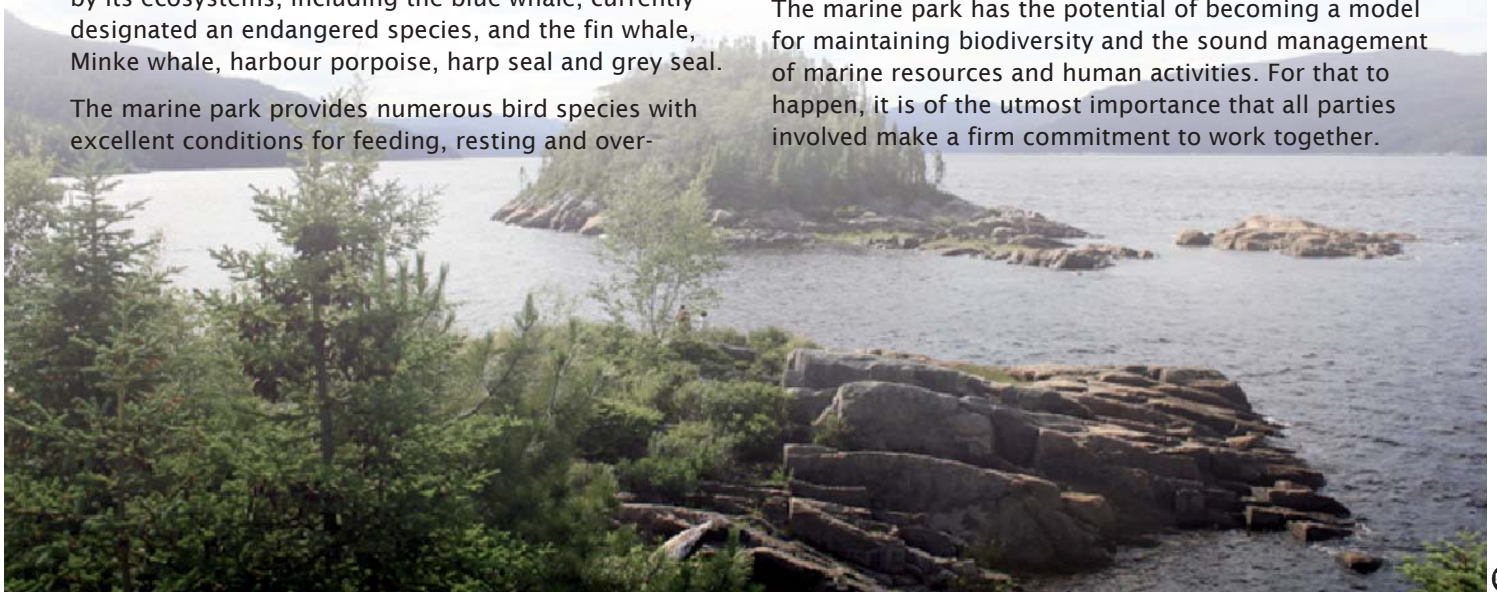
The marine park includes the shores of the Côte-Nord, Charlevoix and Saguenay tourist regions, covering over 365 km. The state of health of the marine park is closely linked to the activity that takes place in the coastal environment and vast watersheds. The quality of the water and ecosystems is also linked to the state of the shores.

The presence of several protected areas on the periphery of the marine park, such as the Parc national du Saguenay, wildlife habitats and the Îles de l'Estuaire National Wildlife Area, also contributes to the health of the marine park's ecosystems. Marshes, kelp beds and fish spawning areas are all highly sensitive coastal habitats that merit particular protection.

### An environment that is subject to great stresses

Overall, the state of the marine park's ecosystems is of concern, but improvements in control of contamination in the Great Lakes-St. Lawrence watershed have had beneficial effects. Better wastewater discharge management is presently one of the major challenges. The harvesting of resources, marine traffic and human activities are other sources of stress for species and ecosystems.

The marine park has the potential of becoming a model for maintaining biodiversity and the sound management of marine resources and human activities. For that to happen, it is of the utmost importance that all parties involved make a firm commitment to work together.



Islet close to Petit-Saguenay wharf