

2020 season

**RESPONSIBLE
OBSERVATION GUIDE
FOR THE MARINE
OBSERVATION
INDUSTRY**



© MMON



**Gaspé
Peninsula Sector**

ABOUT

The responsible observation guide for the marine observation industry of the Gaspé Peninsula sector aims to educate whale-watching companies and kayakers on navigation issues while in whale habitat. It provides information on the marine mammal species that can be encountered and the key field marks that can be used to identify them. Here you will discover the potential impacts that navigation can have and the various regulations pertaining to marine mammal watching in Canada. The guide also proposes specific actions that can be taken to tangibly contribute to the conservation of these animals.



Navigating
Whale
Habitat

To learn more about whale-related navigational issues, visit the web platform, which describes training programs and provides information on whale-watching regulations as a function of one's user profile. This platform notably allows users to familiarize themselves with different ways of collecting and visualizing whale observation data.

www.navigationbaleines.ca/en

This project is an initiative of the Marine Mammal Observation Network (MMON), a non-profit organization that has been working for the conservation and promotion of the St. Lawrence and its fauna since 1998. It draws from a vast network of observer members that collect whale and seal observation data for conservation purposes. The organization collaborates with various players in the marine observation industry in order to involve them in a coordinated effort to promote the conservation of marine ecosystems.



www.romm.ca

This initiative is made possible thanks to funding received under Fisheries and Oceans Canada's Habitat Stewardship Program (HSP) for Species at Risk.



Fisheries and Oceans
Canada

Pêches et Océans
Canada

TABLE OF CONTENTS

About	2
Context	4
1. Why do Marine Mammals Live in the St. Lawrence?	5
2. Marine Mammal Identification	8
2.1 Whales	8
2.2 Seals	17
3. Impacts of Navigation	20
4. Marine Mammal Observation Regulations	22
4.1 Canada’s Marine Mammal Regulations	22
4.2 Transport Canada’s Regulatory Measures for Watercraf Exceeding 13 Metres	23
4.3 Code of Ethics for Responsible Observation	24
5. Participating in Conservation	26





CONTEXT

Observing in a Respectful Manner

The waters of the Canadian east coast, including the Gulf of St. Lawrence and its Estuary, contain highly productive ecosystems that support a wide diversity of whales and seals that come to carry out vital activities such as feeding, reproduction and rest. Although some species such as the St. Lawrence beluga and the harbour seal are year-round residents, the majority undertake annual migrations.

The Gaspé Peninsula is also home to a marine observation industry that generates considerable spinoffs for the local economy. Whale-watching and kayak outfitters offer trips to sea, mainly in the Gaspé Bay and Percé / Bonaventure Island sectors to discover the exceptional landscapes and rich diversity of marine mammals that can be observed here in the summer months. The presence of watercraft is a factor that can be variably disturbing, depending on how approaches are made, hence the importance of understanding the proper conduct to observe for responsible whale-watching.

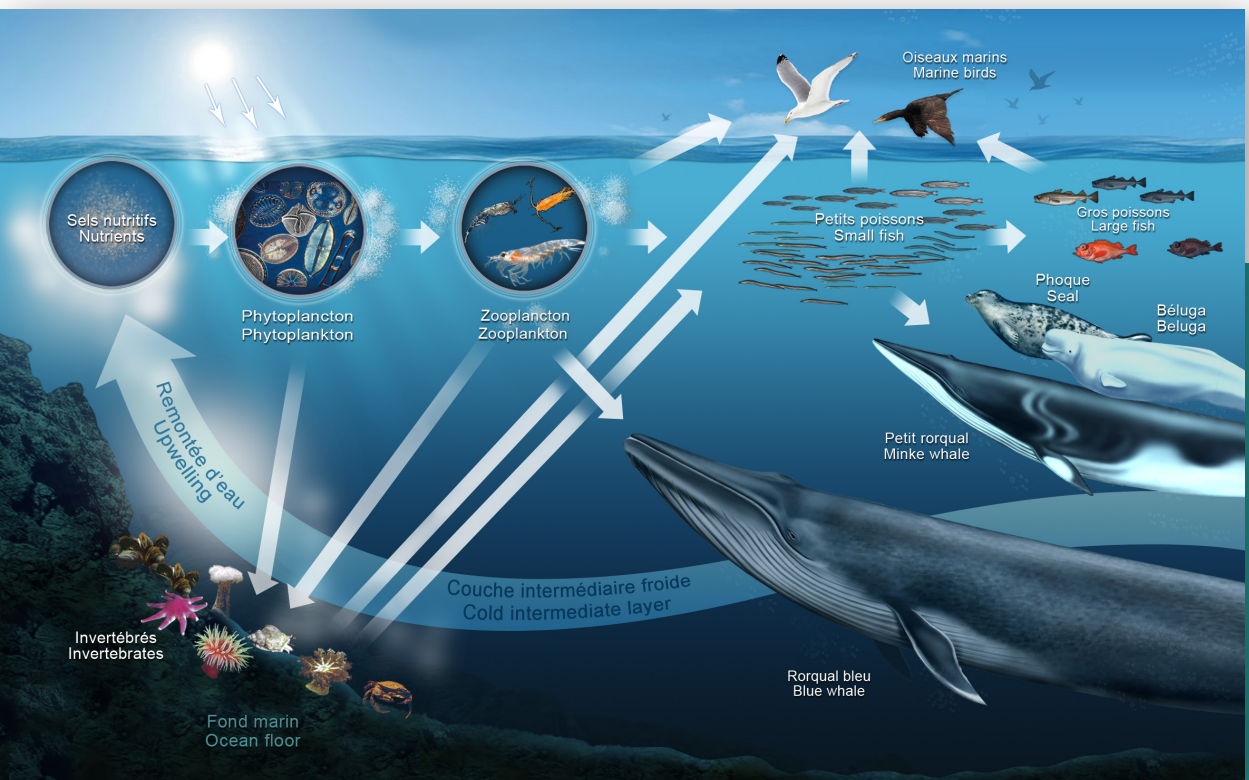
By adopting a respectful attitude toward marine mammals, you are actively participating in their protection while affording future generations the chance to also observe these giants of the seas. Additionally, the clientele that participates in marine mammal observation activities is increasingly interested in seeing these activities carried out in a respectful manner. Although it may be somewhat unusual to see whales breach, observing these majestic animals in their natural environment remains a true privilege. Offering visitors realistic expectations and promoting responsible observation are gestures that will deepen their appreciation of the experience while fuelling their desire to preserve the priceless resource that marine mammals are.



1. WHY DO MARINE MAMMALS LIVE IN THE ST. LAWRENCE?

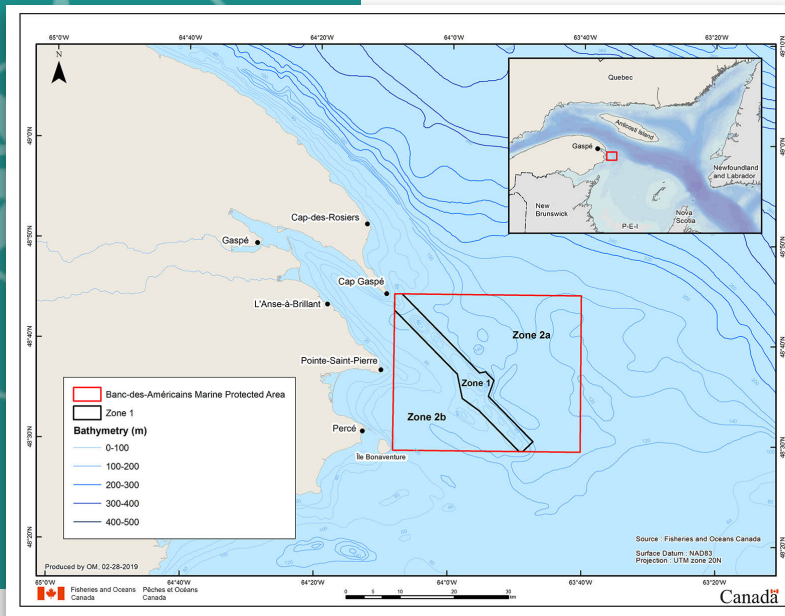
Most of the whales observed in the St. Lawrence are migratory species and return to these waters every year to forage for the food they need to live. In fact, the cold waters of the St. Lawrence are some of the richest in the world, especially upwelling areas, which are conducive to food production and density. Whales leave their reproductive grounds, sometimes thousands of kilometres away, to return to their feeding grounds in the St. Lawrence, which represent critical habitat for their survival.

Picture 1. Upwelling that Drives the Food Chain (© Parks Canada)



The marine environment of the Gaspé Peninsula is characterized by the presence of the Banc-des-Américains Marine Protected Area (MPA). This bank is actually an underwater ridge that is an extension of the eastern tip of the Gaspé in the Quebec portion of the Gulf of St. Lawrence (Figure 1). Spanning 1,000 km², the MPA encompasses the entire 35 km long bank and a portion of two adjacent sandy plains with average depths of 90 to 140 m. This site is characterized by the diversity of its habitats and the permanent or seasonal presence of numerous species, including fish, whales and a wide array of molluscs and crustaceans. The area is home to several species of commercial value as well as a few species at risk. This site shows excellent potential as a feeding ground for the fish and marine mammal species found here. Historically, these waters were highly prized by the fishing industry. The area's unique topography is composed of cliffs, peaks, deep trenches, glacial furrows and abyssal plains. It is associated with the Gaspé current, which carries nutrients and phytoplankton. These characteristics are the underlying contributors to the tremendous diversity of habitats and marine species found in these waters.

Map 1. Banc-des-Américains Marine Protected Area (© Fisheries and Oceans Canada)



To learn more:

<https://www.dfo-mpo.gc.ca/oceans/mpa-zpm/american-americanos/index-eng.html>

We have the opportunity to observe whales because they come to the surface to breathe. Besides their basic needs of breathing and feeding, their life entails other vital activities such as travelling, resting, socializing, and caring for their young. The way whales behave depends on the type of activity they are engaged in. For example, how a whale dives, swims and breathes varies depending on whether the animal is feeding or resting. Whales require space and a peaceful environment to carry out the critical activities for their survival. Natural factors such as variations in the abundance or distribution of their prey and human factors such as the presence of watercraft in their habitat can disturb their activities.



WHAT ABOUT SEALS?

Seals are also quite common on the shores of the St. Lawrence, including those of the Gaspé Peninsula. There are two distinct seasons for pinnipeds, each represented by two species: in summer, harbour seals and grey seals are most often observed, while in winter, the region is visited by harp and hooded seals. Harbour seals and grey seals spend the summer months in the St. Lawrence to feed before migrating south in winter to coastal waters that are free of ice floes.

Harbour seals will even use certain areas to give birth to their pups. For example, the coasts of Forillon National Park are home to a large harbour seal whelping haulout, while the coasts of Bonaventure Island are home to haulout for grey seals that rest there. As for harp and hooded seals, they travel every winter to the Gulf and sometimes, the St. Lawrence Estuary to give birth and return in the spring to subarctic and Arctic waters to feed.



Petit-Gaspé haulout, Forillon National Park © C. Dupasquier, MMON

2. MARINE MAMMAL IDENTIFICATION

The waters of the St. Lawrence are home to a broad diversity of marine mammals, including a total of 13 species of whales (see diagram on Page 11) and 4 species of seals.

2.1 WHALES

Whale Species of the St. Lawrence

Whales are subdivided into two broad groups: baleen whales and toothed whales.



Baleen whales have no teeth, but rather horny plates attached to their upper jaw called “baleen”, which they use like a filter when they feed. Baleen whales feed on zooplankton, i.e. tiny organisms such as krill and copepods, as well as small fish such as capelin, herring and sand lance. These animals sometimes exhibit surface feeding behaviour, which can increase the risk of collision with watercraft.

Toothed whales, as their name implies, have sets of identical teeth that are used only to take hold of their food, which is then swallowed whole. Using a multitude of hunting techniques, they feed on a wide variety of prey such as fish, squid, crustaceans and even other marine mammals.





Table 1. Comparison of the Two Main Categories of Whales

	PHYSICAL CHARACTERISTICS	SPECIES
BALEEN WHALES	<ul style="list-style-type: none">• Often larger than toothed whales• Two blowholes on top of head• Often more solitary than toothed whales	Blue whale Fin whale Humpback whale Minke whale North Atlantic right whale
TOOTHED WHALES	<ul style="list-style-type: none">• Often smaller than baleen whales (except sperm whale)• Single blowhole on top of head• Often seen in groups, highly gregarious	Sperm whale Long-finned pilot whale Northern bottlenose whale Beluga Killer whale Harbour porpoise Atlantic white-sided dolphin White-beaked dolphin



Identifying Whales

Several species of whales frequent the waters of the Gaspé Peninsula. To correctly identify them, one must be familiar with key visual criteria:

- [Spout](#): visible or not; height and shape
- [Dorsal fin](#): absent or present; shape
- [Colour](#) of animal and presence of spots or markings on its body
- [Size](#) of animal, its head and back
- [Tail](#): visible or not when animal dives and characteristics thereof
- [Noteworthy behaviour](#), including breaching, spyhopping, raising pectoral fins out of water, etc.

One must be careful not to underestimate the size of the animal. Similar to an iceberg, rarely does one see the entire animal. **Approximately 1/7th** of the animal is visible when it surfaces to breath.

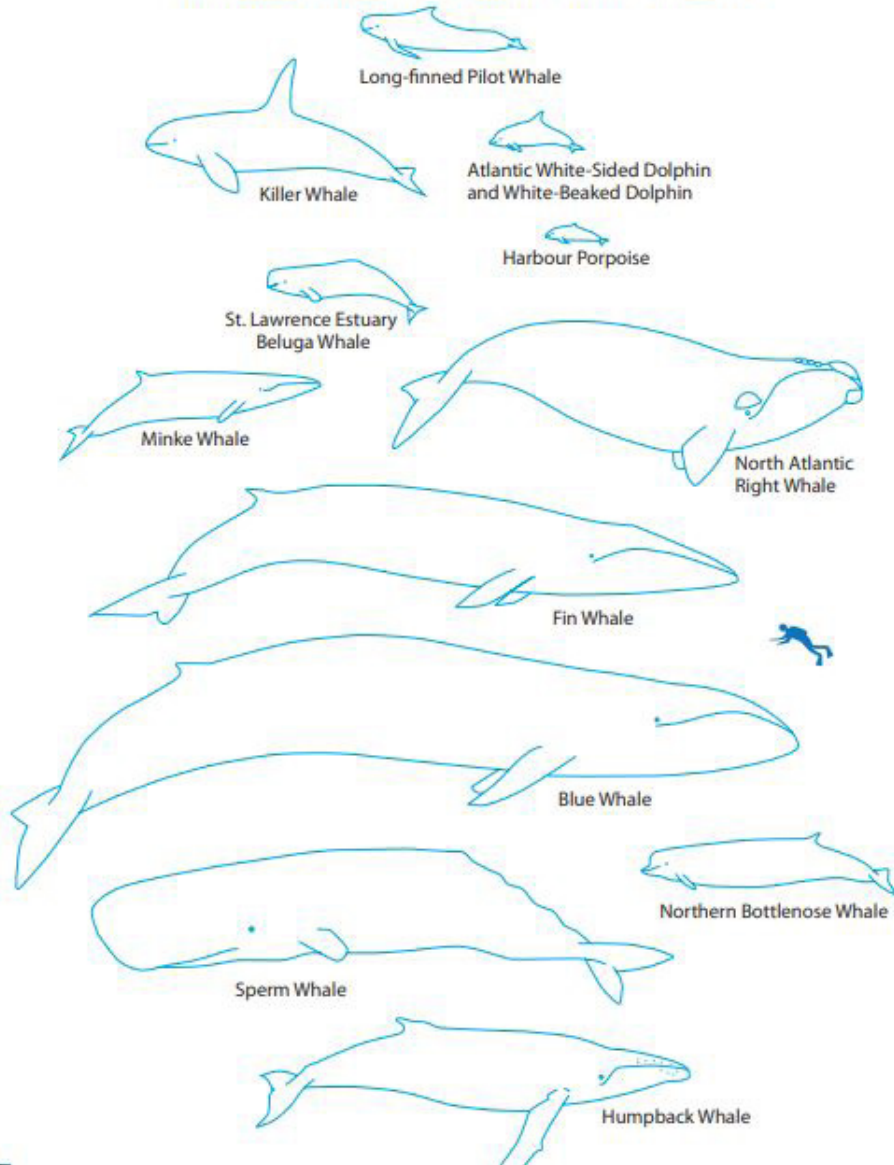
When identifying a cetacean, it is important to take the time to observe several breathing sequences until the animal dives again. By doing so, one will be able to verify whether or not the animal shows its tail when it dives and validate all criteria and noteworthy behaviour that can be used to identify the species.



Humpback whale © C. Horváth, MMON

Picture 2. Sizes of Species Observed in the St. Lawrence (© MMON)

**Relative sizes of the 13 different species
of whales frequenting the Northwest Atlantic**



Main Baleen Whales Species Observed in the Gaspé

 Endangered species

 Species of concern



Blue whale



Length: 20 to 28 metres
Size: 75 to 130 tonnes
Spout: up to 6 metres
Shows its tail on occasion
Mottled greyish-blue colouring



Fin whale



Length: 18 to 21 metres
Size: 40 to 50 tonnes
Spout: 4 to 6 metres
Does not show its tail
Dark back, pale chevrons



Humpback whale

Length: 11 to 13 metres
Size: 25 to 35 tonnes
Spout: up to 3 metres
White colouring on underside of tail when animal dives



Minke whale

Length: 8 to 9 metres
Size: 6 to 8 tonnes
Spout: 2 metres (inconspicuous)
White spots on pectoral fins



North Atlantic right whale



Length: 10 to 15 metres
Size: 30 to 60 tonnes
Spout: V-shaped, clearly visible
Callosities on head

© MMON

Main Toothed Whales Species Observed in the Gaspé



© GREC

Sperm whale

Length: 10 to 15 metres
Size: 15 to 40 tonnes
Spout: 3 metres; angled left. Extended periods spent breathing at the surface (30+ breaths); triangular dorsal fin



© J. P. Sylvestre

Long-finned pilot whale

Length: 4 to 5 metres
Size: 2 to 3.5 tonnes
Round, black head; long pectoral fins; often observed in groups



© T. Pusser/naturepl.com (modified)

Northern bottlenose whale ▲

Length: 8 to 10 metres
Rounded head (melon) and distinctive beak, dorsal fin curved rearward, light cinnamon in colour



© MMON

Beluga whale ▲

Length: 3 to 4.5 metres
Size: 0.7 to 1.5 tonnes
Spout: inconspicuous but audible
White colouring (grey colour for juveniles); year-round resident of the St. Lawrence



© J. Detcheverry

Killer whale

Length: 6 to 9 metres
Size: 3 to 7 tonnes
Spout: 2 metres, inconspicuous
Large dorsal fin, typical black-and-white colouring



© C. Phillips

Harbour porpoise

Length: 1.5 to 2 metres
Size: 45 to 50 kg (65 kg max.)
Spout: very small, inconspicuous and difficult to observe
Triangular dorsal fin



© MMON

Atlantic white-sided dolphin

Length: 2 to 3 metres
Dorsal fin clearly visible
White flanks and yellow colouring toward tail; active behaviour



© MMON

White-beaked dolphin

Length: 2 to 3 metres
Dorsal fin clearly visible
Large dorsal fin, white saddle on back and white beak

WHALES AT RISK

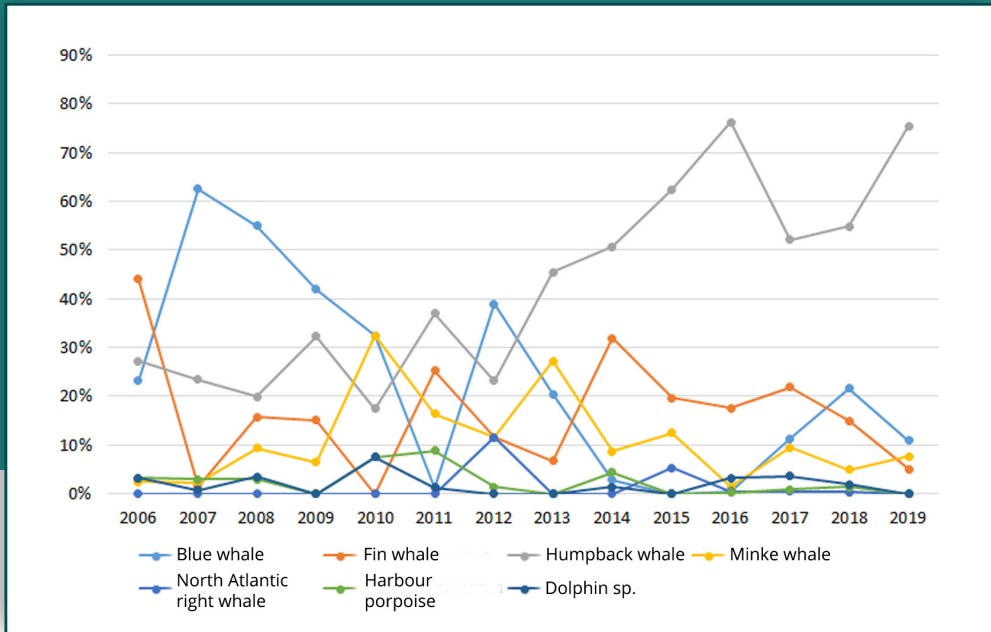
The *Species at Risk Act* aims to prevent the extinction of wild species and to plan actions that can aid their recovery. Species that have a status, particularly those that are threatened or endangered, must be granted specific protection. The beluga, blue whale, North Atlantic right whale and northern bottlenose whale (Scotian Shelf population) are four species that currently have such status. It is not necessary to seek them out in order to observe them. The blue whale is regularly observed in the Gaspé Peninsula and the right whale is increasingly frequent in the Gulf of St. Lawrence. Maintain your distance in order to protect them.

<https://www.canada.ca/en/environment-climate-change/services/species-risk-act-accord-funding/act-description.html>

Valuable Data on Whale Distribution Patterns in the Gaspé Peninsula

Since 2006, the Marine Mammal Observation Network (MMON) has been working in close collaboration with the actors of the Gaspé Peninsula's marine observation industry in order to characterize the activities of this sector. Thanks to the exceptional collaboration of the industry, the MMON has built a significant bank of information on the various species of cetaceans and pinnipeds observed during offshore activities.

Figure 1 . Species breakdown of directed observation time [%] during offshore trips in the Gaspé Peninsula sector (2006 to 2019)



Year in and year out, the humpback whale remains a prime target for directed observation. Similarly, significant observation time is dedicated to blue and fin whales whenever these species are present. When large rorquals are more scarce in the sector, observations tend to focus on minke whales and small toothed cetaceans such as harbour porpoises and Atlantic white-sided dolphins.

Map 2 . Density of observations during offshore activities in the Gaspé Peninsula, for all whale species from 2006 to 2019 (red square: Banc-des-Américains Marine Protected Area)

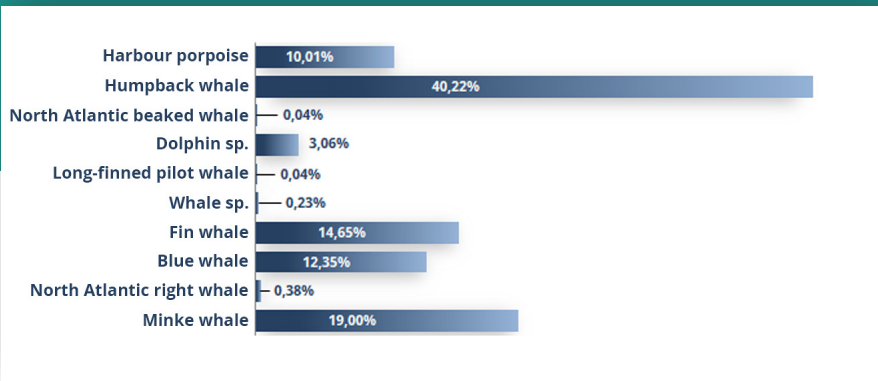
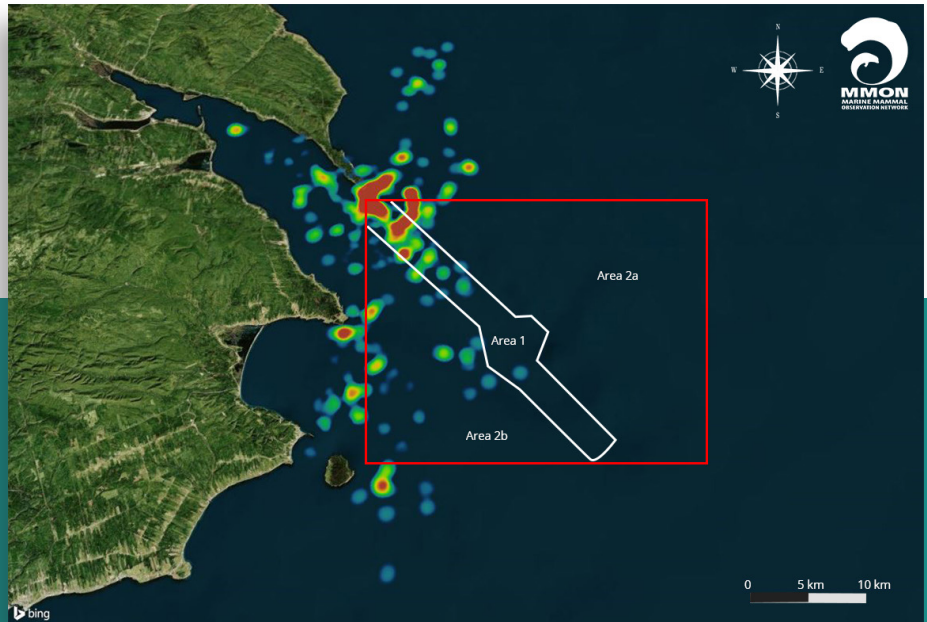


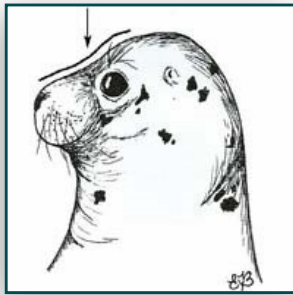
Figure 2 . : Species breakdown [%] of whale observations during offshore activities in the Gaspé Peninsula from 2006 to 2019



2.2 SEALS

Seals of the St. Lawrence

Seals differ from sea lions in that they lack external ear flaps. Only a small orifice can be seen behind the eyes. Their elongated rear flippers are positioned behind the body and are used for propulsion. Their front flippers are mainly used as a rudder when they swim. Because their flippers are so short, seals shuffle along quite awkwardly on dry land and ice. Four species of seals are regularly observed in the St. Lawrence, namely the harbour seal, the grey seal, the harp seal and the hooded seal.

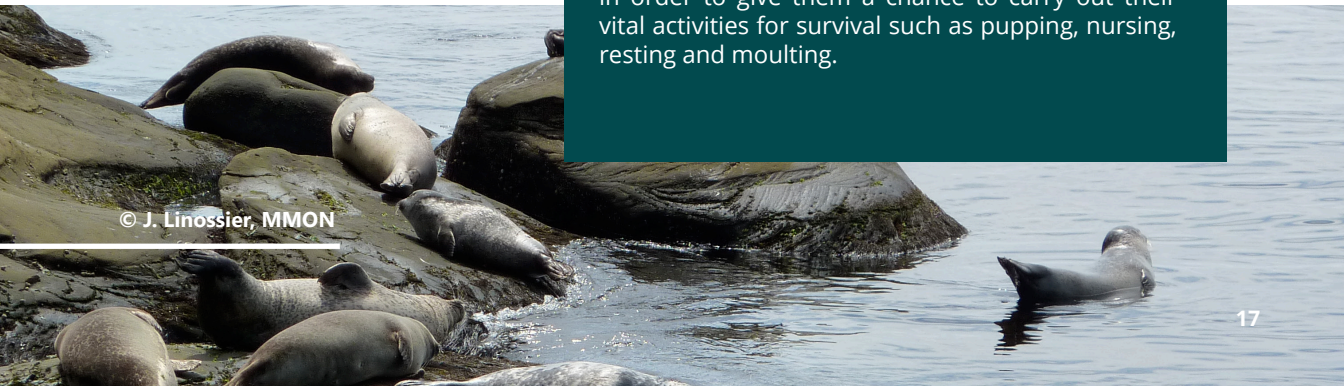


HARBOUR SEAL

The **harbour seal** is the smallest of the four species that can be observed in the St. Lawrence. Like the beluga, it is a year-round resident of the St. Lawrence. It mainly uses haulout sites near the coast, making it more prone to disturbance. Although it is not recognized as a species at risk, its situation is considered precarious. Maintain your distance from harbour seals, especially at haulouts, in order to give them a chance to carry out their vital activities for survival such as pupping, nursing, resting and moulting.

GREY SEAL

© J. Linossier, MMON



Identifying Seals

Identifying a seal can sometimes be challenging, especially if the animal is in the water. Every species of seal has its own distinctive characteristics. To make an accurate identification, it is recommended to be familiar with their field marks, their range, the behaviours specific to each species and their annual life cycle.



© MMON

Harbour Seal

Length: 1.5 metres

Weight: 100 kilograms

Dog-shaped head, upturned nose, spotted coat
Coastal species; smallest seal in the St. Lawrence



© MMON

Grey seal

Length: 2 to 2.3 metres

Weight: 150 to 350 kilograms

Long snout (horse-shaped silhouette)
Large species; females smaller with mottled, lighter-coloured fur

INFREQUENT VISITORS



© R. Trépanier

Harp Seal

Occasionally, in summer, small groups of harp seals can be observed in the St. Lawrence. Nicknamed “beaters”, they splash at the surface when swimming on their backs.



© JP. Sylvestre

Hooded Seal

In summer, it is very rare to observe adults in the St. Lawrence, but first-year pups, often referred to as “blue-backs”, are regularly observed on its beaches.

Colouring can vary between seals of the same species depending on their sex and whether their coat is dry or wet.

Size is dependent on their age, their sex, geographic location and the time of year.



WET HARBOUR SEAL

DRY HARBOUR SEAL



© C. Dupasquier, MMON

© C. Dupasquier, MMON

Seal Distribution in the Gaspé Peninsula

In summer, two species of seals are mainly found in the Gaspé: the harbour seal and the grey seal. The majority of harbour seal observations are made near the Forillon Peninsula, which in fact is where the Petit-Gaspé harbour seal haulout is located. As for grey seals, they can be found near Bonaventure Island and the Forillon Peninsula. Some individuals have been observed off the coast of Forillon. N.B.: It is also possible, however, to observe harp seals and hooded seals in summer, especially first-year animals.



3. NAVIGATIONAL IMPACTS

Whales have low reproductive rates, giving birth to just a single offspring every two or three years, which further complicates the recovery of populations that have suffered from commercial whaling in past centuries. Today, whales and seals are sensitive to recurrent disturbance caused by human activities such as water pollution, habitat degradation, entanglement in fishing gear, as well as noise and the risk of collision due to increases in maritime traffic. Navigation also has impacts that must be taken into consideration such as underwater noise levels and ship strikes.

Human presence can cause animals to alter their natural behaviour. Sometimes, these changes are easy to observe, such as when seals that had been resting on dry land take to the sea when a watercraft approaches. Such disturbance can be more subtle in whales. Nevertheless, studies have demonstrated that boating-related disturbance does have an impact. For example, whales may leave an important feeding area, change their breathing patterns, abandon their young, or stop resting. Over the long term, these prolonged or repeated behavioural changes can compromise the survival of individuals or even the population as a whole. Collisions can have a more tangible impact on marine mammals. Ship strikes can cause severe injury to a whale, compromising its survival or even killing it.

To navigate in harmony with marine mammals, you must first be aware that you are in their habitat and that your presence can have an impact on their critical activities and/or cause them to leave a sector characterized by excessive shipping and boating traffic. Hauled-out seals can take to the water if they feel threatened, causing them to interrupt their rest or moult. Engine noise can interfere with echolocation or communication between individuals, notably between mothers and their young. Additionally, high speeds increase the risk of collision with marine mammals. One must bear in mind the cumulative effect of all the watercraft that a given marine mammal encounters. Such an effect will magnify the impacts of human disturbance on the animals' ability to carry out their vital biological activities.





BLUE WHALE

A study conducted in the St. Lawrence Estuary quantified the impact of a watercraft positioned less than 400 m away from a blue whale on the latter's feeding behaviour. The results show that, in such conditions, a whale will reduce the number of breaths it takes by half as well as the duration of its dives. However, in order to feed, a blue whale must replenish its oxygen reserves enough to be able to reach the deeper waters where its food is found. Consequently, if the animal spends less time breathing at the surface, it stands to reason that it will ingest less food. However, to survive, it is critical that it feed sufficiently. Navigation also has impacts that must be taken into consideration such as underwater noise levels and ship strikes.

Source : Lesage, V., Omrane, A., Doniol-Valcroze, T. et Mosnier, A. 2017. Increased proximity of vessels reduces feeding opportunities of blue whales in the St. Lawrence Estuary, Canada. *Endangered Species Research*, doi: 10.3354/esr00825



© S.C. Pieddesaux, MMON

4. MARINE MAMMAL OBSERVATION REGULATIONS

In the Gaspé Peninsula, whale-watching activities are governed by two regulations: *the Marine Mammal Regulations* under the responsibility of Fisheries and Oceans Canada, and Transport Canada's regulatory measures to protect right whales, which impose speed limits on any watercraft that exceeds 13 metres. By adapting how you operate your watercraft, you can limit disturbance and reduce the risks of collision. You will therefore be doing your part to help protect whales and seals.

4.1 CANADA'S MARINE MAMMAL REGULATIONS



Throughout Canada, it is forbidden to disturb a marine mammal, which means:

- Feeding it;
- Swimming or interacting with it;
- Moving it from the immediate vicinity, luring it or coaxing it to swim in one direction or another;
- Separating it from members of its group or coming between a marine mammal and its young;
- Positioning a boat so as to corner the animal or its group between a boat and the coast or between multiple boats.

The amendments to the regulation define approach distances that are adapted to specific circumstances and which vary from one sector to another.

Regulatory approach distances in the Gulf of St. Lawrence are as follows:

**100 m for all species
200 m for whales at rest or with a calf**

To view the complete version of the regulation, visit:

<https://laws-lois.justice.gc.ca/eng/regulations/SOR-93-56/index.html>

4.2 TRANSPORT CANADA'S REGULATORY MEASURES FOR WATERCRAFT EXCEEDING 13 METRES

Transport Canada is committed to the protection and recovery of the endangered North Atlantic right whale. Measures are being taken to help protect this endangered species in the Gulf of St. Lawrence. Static and dynamic speed limit zones, which are subject to review on an annual basis, are being developed in close collaboration with the maritime industry, non-governmental organizations, academia, First Nations and other federal ministries. The Gaspé Peninsula sector is part of the region covered by this regulation. Likewise, if your watercraft exceeds 13 metres in length, it is your responsibility to stay informed and comply with the regulatory measures described at the following address:

<https://www.tc.gc.ca/eng/mediaroom/background-protecting-nor-th-atlantic-right-whales.html>

To consult the Canadian Coast Guard's navigational warnings:

<https://nis.ccg-gcc.gc.ca/>

For pleasure craft, courtesy Transport Canada's Office of Boating Safety:

<https://safeboatingcourse.ca>



North Atlantic right whale © MMON

4.3 CODE OF ETHICS FOR RESPONSIBLE OBSERVATION

In order to navigate responsibly and respectfully:

- Comply at all times with the minimum approach distances stipulated in *Canada's Marine Mammal Regulations*. If you inadvertently find yourself less than 100 m from any whale or less than 200 m from a whale that is resting or with its calf, steer your watercraft away until you reach the minimum regulatory distance.
- Do not seek out endangered whales (blue whale, North Atlantic right whale) to observe and maintain the minimum regulatory distance of 400 m if you encounter one or more representatives of these species.
- Avoid approaching resting whales (a whale at rest appears to be immobile and floats on or near the surface).
- Reduce your speed when approaching a whale and do not position yourself in its path. Refrain from making sudden changes in speed or direction in order to allow whales to anticipate your movements and avoid you should they feel the need to do so.
- Make your approaches at an angle (as opposed to head on, perpendicularly or from behind) while always maintaining an appropriate distance.
- Avoid approaching one or more whales when multiple boats are already present, including recreational craft, and do not encircle the animals.
- Limit your observation time. By doing so, you will minimize the cumulative impact of your activity and afford others the opportunity to also enjoy these marine mammals.





FOR SEALS

Places where seals congregate on dry land are called “haulouts”. These can be found on islands, islets, rocks or tidal flats. Some of these haulouts are used for activities critical to the animals’ survival such as pupping, nursing and moulting. Recommended practices include:

- Do not land your craft on or near haulout sites, feed the seals or attempt to handle them.
- Reduce your speed when approaching a haulout. Avoid making sudden changes in speed or direction.
- Maintain a distance of 200 m from haulouts at all times, and 400 m during the pupping and nursing period for harbour seals (May 15 to July 15) in light of the worrisome trends shown by the St. Lawrence herd of this species.

Move away if the seals show signs of nervousness or start to return to the water. Use binoculars to observe seals.



© C. Dupasquier, MMON

5. PARTICIPATE IN CONSERVATION

Report Your Marine Mammal Observations

When you report your marine mammal sightings, you contribute to knowledge of their range and distribution: such data play a critical role in their protection. The data collected by MMON are centralized and made public on the data viewing platform at:

www.navigationbaleines.ca/en

To become an MMON member and receive your own customized observation kit, send an email to

info@romm.ca

You can report your observations in one of two ways: either directly online using the electronic data entry tool due to be launched in fall 2020 on the site www.navigationbaleines.ca, or by manually filling out the data charts, which can then be scanned and mailed to the MMON.

Reporting North Atlantic Right Whales

Learn how to report your North Atlantic right whale observation to Fisheries and Oceans Canada by clicking on the following link:

<https://www.dfo-mpo.gc.ca/videos/right-whales-baleines-noires-NA-eng.html>



Please report any incident involving a dead or vulnerable marine mammal, harassment of a marine mammal, or an environmental emergency

If you witness any of the following situations, contact the Quebec Marine Mammal Emergency Response Network at **1-877-7baleine (722-5346)** :



- Stranding or collision
- Incidental catch in fishing gear
- Drifting carcass or vulnerable animal
- Whale far outside its normal range (e.g. a beluga in the Gaspé region)

If you witness poaching or animals being chased or harassed, please contact Fisheries and Oceans Canada at **1 800 462-9057**.

If you observe an environmental emergency (spill, pollution or other), please contact the Canadian Coast Guard at **1 800 363-4735**.

Stay on top of the latest whale news at

www.baleinesendirect.org/en/

Everything about St. Lawrence Whales: how and where to observe them, scientific research and the latest news.



Stranded beluga carcass © C. Dupasquier, MMON