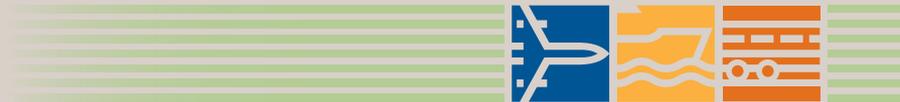




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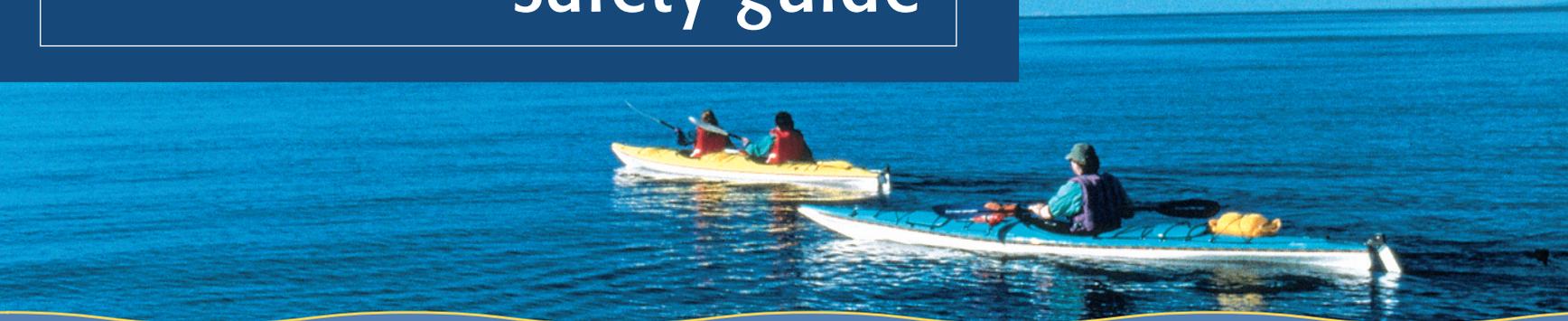
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OFFICE OF **BOATING SAFETY**
BUREAU DE LA **SÉCURITÉ NAUTIQUE**

TP 14726E
(01/2009)

Sea kayaking safety guide



TC-1003045



Canada 

Welcome to the Sea Kayaking Safety Guide! This guide is one of many tools the Office of Boating Safety (OBS) uses to help educate recreational boaters about safety. The OBS is Transport Canada's focal point for the recreational boating community. It delivers prevention-based programs to reduce the safety risks and environmental impacts of boating on Canadian waters.

The success of its programs depends on valued contributions. The Canadian Coast Guard Auxiliary, Fédération québécoise du canot et du kayak, provincial, territorial and federal partners, advisory councils, the Canada Safe Boating Council, training and enforcement organizations, manufacturers, retailers and the Canadian and United States Coast Guard are just a few partners working together for safe boaters, safe boats and a safe boating environment.

This guide is intended for operators of pleasure craft. If you own or operate a non-pleasure craft (commercial vessel), visit www.tc.gc.ca.

Printed in Canada.

Please direct your comments, orders and inquiries to obs-bsn@tc.gc.ca

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INTRODUCTION

I must go down to the seas again, for the call of the running tide
John Masefield (1878-1967)

One Sunday morning in July, the phone rang at our sea kayaking outfitter's shop. "Hello" the caller said, "This is the Canadian Coast Guard speaking. We've received a report that six kayakers, identified as belonging to your company, are currently drifting up stream-upwards of the Grande-Pointe¹. What should we do?"



KIM GROGBY, KAYAKBC.COM

We soon traced this back to a small group of friends that had rented the kayakers the day before for a weekend excursion. Evidently, the group had landed without mooring their kayakers and, surprised by a 20 foot tide, had to watch their kayakers drift upstream. Having wanted to save the 40 dollars required for renting a VHF radio from us, the head of the group had told us before setting out "I know the route very well. Nothing will happen." With no boats and no telephone, at the foot of inaccessible cliffs, the group had no means to turn for help that morning. Thanks to the vigilance of shoreline residents, the Coast Guard was able to return the kayakers one hour later to the somewhat wretched group.

Is this an isolated incident? No. The Canadian Coast Guard helps many dozen pleasure kayakers annually. Often, many of them do not even have a lifejacket or a personal flotation device (PFD) or other required equipment. In essence, each kayaker is obliged to have one a lifejacket or a PFD on board and they are advised to wear them.

Sometimes, a journey begun in bright sunlight is challenged by quickly densifying fog. This may well inhibit you from seeing the bow of your own kayak. Or, at two or three kilometre's distance, a

¹ True story, yet fictitious name

squall strikes, creating waves of up to two metres in height within only a few minutes. Starting off in bathing suits, you hadn't thought to bring warm clothes and you now risk getting hypothermia. These types of incidents always have two causes: lack of knowledge of the terrain and the sport, and poor judgment.

A sport that is becoming more and more popular, sea kayaking is an excellent type of boating that allows you to learn and understand the ocean, to enjoy great lakes, to experience wildlife and flora, to see regions, from a different perspective and to unwind in nature. Canada, the largest country in the world and bordered by three oceans, offers a multitude of possibilities for sea kayaking.

Sea kayaking is not inherently dangerous. However, to keep safe and to avoid accidents, it requires a sound knowledge of the environment and of the sport in addition to a good attitude. The ocean and great waters present risks that you are well advised to familiarize yourself with before proceeding. How high is the tide at a certain location? What is the speed of the current? The force of the wind? And what effect do all of these factors have on kayaking? If you are having difficulty answering these questions, The Sea Kayaking Safety Guide is for you.

The Sea Kayaking Safety Guide aims to sensitize you to the inherent difficulties of the sport and to their associated risks. These challenges can only be truly learned through training and experience. If you have neither, we strongly recommend starting off with a qualified guide. Qualified guides, if they are members of accredited associations, abide to the specific regulations relating to equipment, training and conduct. Finally, be wary of crooked or unknowledgeable outfitters who try to convince you that their kayaks are perfectly safe. Take the time to locate shops that are acknowledged by a competent association.

The Sea Kayaking Safety Guide is comprised of five sections. In the first you will learn of the equipment and the kayak. The second section introduces you to the main challenges inherent to marine environments. The third section is a very brief overview of all of Canada, the chosen regions of which correspond to the various waterways of the country. In the fourth and fifth section, finally, you will find plenty of advice for preparing a safe trip.

And, remember the two pillars of safety: to understand and to anticipate!

1 KAYAKS, EQUIPMENT AND CLOTHING

KAYAKS

The sea kayak has the same general tapered appearance as its Inuit ancestor as well as its main qualities: speed and stability. But, that's where the comparison ends.

Apart from certain foldable models, the internal structure has completely disappeared. Modern kayaks have a rigid, one-piece moulded hull and deck. This makes it possible to build kayaks long enough to seat two.

Although sea kayaks are available in models ranging from 3.5 to 6.7 meters (11' 6" to 22'), a **minimum of 4 metres** (13') is recommended for better handling in swells as well as superior tracking control.

Two types of material are used: polyethylene (plastic) and composites (fibreglass, Kevlar and carbon fibre).

Moderately priced polyethylene provides excellent impact resistance and average glide, but is quite heavy and has a low stiffness rating.

Composite materials, on the other hand, provide relatively good impact resistance and good glide, are average in weight, and are very stiff. The high stiffness allows for the construction of more sophisticated models. Composite materials cost more, however, and the price increases when high tech materials and techniques are used.

Choose a kayak suited to the type of water you expect to use it on.

When capsized, a kayak can float thanks to **watertight flotation compartments** or specially designed airbags. Watertight deck hatches provide access to the compartments, which can be used to store and protect your gear. This ingenious system makes it possible to bring along all the gear and equipment you need for day outings or multi-day expeditions.

Many sea kayaks are equipped with a **rudder**. This provides beginners with good tracking control and allows more experienced paddlers to correct drift caused by wind or waves. The rudder can retract upward onto the deck in shallow water or when transporting the kayak. Rudders are controlled by the feet using a system of pedals and cables.

Sea kayaks generally have a **tapered nose** for good cruising speed and a fairly high bow (front) to prevent ploughing in waves. The bow and stern are equipped with **lifting toggles**. Basic equipment generally includes **bungee cords** to keep safety equipment and maps close at hand. Kayaks may also be equipped with a life-

line around the edge of the deck. For ocean expeditions, it is important to add a deck-mounted compass and to know how to use it.

Kayak stability is directly linked to three things: the centre of gravity, the cross-section, and the width or beam.

- Since the seat almost touches the bottom of the kayak, the **centre of gravity is very low**, which ensures excellent stability. The weight of baggage stowed in the watertight compartments increases stability.
- Generally speaking, the wider the kayak the more stable it is. The cross-section or shape of the sides and bottom affects kayak stability and speed. Given the wide variety of models

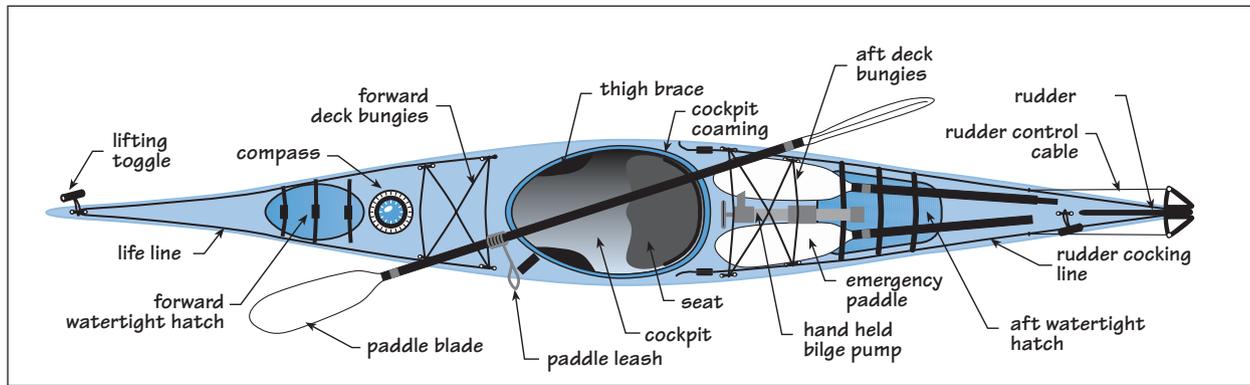


ILLUSTRATION : DANIEL CYR

on the market, the only way to choose one that suits you is to try them out and to ask for advice from a specialist.

EQUIPMENT

Mandatory equipment

Sea kayaks are subject to the **Small Vessel Regulations**. The equipment to be carried on board depends on the length of the kayak. See Chapter 5, Regulations.

ESSENTIAL EQUIPMENT

The sprayskirt provides a watertight seal around the kayaker, preventing water from getting in the kayak. Sprayskirts are made out of coated nylon and/or neoprene and must be well fitted on the cockpit rim and around your waist. Certain models come with a mesh storage pocket.

A paddle bladder or float is a **very important** piece of safety equipment. After a capsize, it enables you to get back into your kayak without help. The floater has a bladder that fits over a paddle blade. By resting the other blade on the deck, the kayaker can use the paddle as a brace to climb back into the cockpit. **This manoeuvre is fairly straightforward but requires some practice.**

A spare paddle. A two-piece take-apart paddle is perfect. Store it on deck for easy access. Make sure you have at least one spare paddle for your group (1 for every 4 people).

A chart or topographic map of the area being visited is your most reliable guide. Learn how to read and orient it. A transparent, watertight chart case will let you consult it easily. Select a model with eyeholes so it can be attached to the deck bungee cords.

A chart ruler Or a spare/second compass with a transparent base plate designed to assist in the direction determination can be used as a course protractor with the map. Use it to determine a heading or bearing when planning your trip or en route.

A first aid kit suitable for the group should be brought along and stored in a waterproof container.

RECOMMENDED EQUIPMENT

Waterproof gear bags provide additional protection in the event water gets into a compartment. They are made of soft, vinyl-coated nylon so as to fit into any of the various compartments of a kayak.

Rigid, waterproof barrels and cases are well suited for storing fragile items (camera equipment, binoculars, etc.).

Binoculars are extremely useful. Waterproof 7 x 50 models are a popular choice for water sports.

A spherical glass marine compass is more suitable for navigating than a conventional hiker's compass. The compass rose is equipped with a magnet and floats freely in a sphere; and a lubber line lets you keep track of your heading at all times.

If the kayak is not equipped with a spherical compass, a conventional hiker's compass can be helpful if you stay close to shore. Be careful with objects containing iron; they can disrupt compass readings if stored too close.

A VHF radio is one of the best ways of communicating with other ships and Canadian Coast Guard stations. Kayak models have a range of several kilometres and also receive weather channels. Choose a watertight model.

VHF radio operators must hold a restricted marine radiotelephony operator's certificate (lifetime certificate). See Chapter 5, Regulations.



PARKS CANADA/ALAIN DUMAS

Cellular phones are not an adequate substitute for VHF radios. Even though they may work near large urban centres, you have to know the local emergency number (911, *16, etc.). On large lakes and remote reservoirs as well as in the far North (Zone 4), use a radio satellite link or an Emergency Position Indicating Radiobeacon (EPIRB) in place of a VHF radio.

Radar reflectors. Since kayaks (non-metallic) are invisible to radar, a radar reflector is required to avoid collisions in foggy weather or when there is heavy shipping traffic. Effective lightweight models are available in plastic covered with an aluminium film. To be detected, the reflector must

be installed as high as possible (1.8 m or more). You can use a guyed tent pole as a mast.

A GPS (Global Positioning System) will give your position to within 100 metres or so at all times. Despite its usefulness, it is a complex electronic device that can break down. **It cannot replace your map or compass**, but can be a very handy piece of additional equipment.

On sunny days, flashes from an **emergency mirror** are visible for several kilometres.

A smoke flare (Type D) will produce a thick cloud of orange smoke for several minutes and can only be seen during day light hours. A container of fluorescent dye will produce a fluorescent green spot. These two signalling devices must only be used when rescuers are in sight to help them spot you.

CLOTHING

Should you choose clothing based on air or water temperature?

A compromise between the two is best. Take into consideration weather conditions, your skill level and the type of kayak. Determine

the consequences of a capsize (time spent in water, proximity to the shore, outside help, etc.) when making your choice.

Kayakers often get wet (waves, spray, splashing). Cotton clothing, which does not retain heat and dries slowly, should be avoided. Instead, opt for **synthetic** fibres (polyester, polypropylene), which dry quickly, or wool, which retains heat even when wet. In cold temperatures, a wetsuit is strongly recommended. Opt for slim fitting models that hug the chest and hips.

Dressing appropriately for sea kayaking requires constant adjustment. **Multiple layers** of thin clothing give you the flexibility you need to confront wide variations in temperature and weather. A **waterproof anorak** or a good windbreaker should always be part of your gear. Don't forget to **cover your head**, whether to protect yourself from the sun or to keep yourself warm.

Always wear your lifejacket or PFD. It will also help keep you warm. Sunglasses are often indispensable. Use a lanyard so you won't forget or lose them.

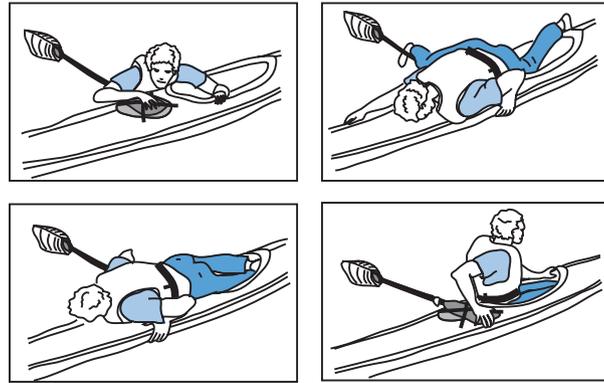
You should always bring along a **change of dry clothing** in a watertight container.

2 BASIC TECHNIQUES AND COURSES

Designed to remain stable, a kayak does not easily tip over. However, while floating on calm waters may not seem threatening, keeping control of the kayak on rough waters may well pose a challenge. Waves, poorly adjusted or inadequate equipment, and fatigue are all elements that can provoke capsizing.

Before launching onto the water, take the time to feel comfortable in your position, to become accustomed with the movement of the kayak and to make all the required adjustments. The following tips will help you to make sure that you are ready to start out. However, we caution that **THIS CHAPTER IS NOT A SUBSTITUTE FOR A COURSE.**

Begin by adjusting the rudder pedals to the length of your legs. **When you are comfortably seated** with a straight back, your feet on the pedals and knees braced under the deck, you become one with the kayak. Beginners often have the uncomfortable **sensation of being "trapped" in the kayak.** The first step is to get in and out of the kayak several times (on the water) to see if



you can get out in the event of a capsize. If conditions allow, **try capsizing** with the assistance of someone who can help you if need be. This exercise should always be done at least once with the sprayskirt in place. It is important to test your ability to get out of a capsized kayak.

The next step involves getting back into the kayak on your own. **Get used to using the paddle bladder** or float (see Chapter 1, Kayak, Equipment and Clothing). Practicing this technique will help



you better understand the consequences of capsizing far from shore and being in cold water for extended periods of time. It is also a reflection of reality—**you must learn how to get back into your kayak without assistance.**

Once you have practiced these techniques, you are ready to go. However, getting to know a **few other simple techniques will save you a lot of energy and greatly increase your enjoyment.** The main techniques you should be familiar with are forward strokes, sweep strokes, draw strokes, paddle bracing, Eskimo rolls, and rescue techniques.

Remember, nothing can replace a course given by a qualified individual or accredited organization. However a number of excellent technical manuals are available for reference purposes.

COURSES

Sea kayaking associations exist in most Canadian regions. Often representing both kayaking and canoeing clubs, their mandate is to link the various kayaking clubs and to offer courses as well as information on places to kayak. Aside from these associations and clubs, kayakers can consult specialists from tour guide associations, outfitters, companies, as well as independent guides. Especially when exploring a region you have never been to before, professionals advice from these different fields can prove very helpful for planning a safe trip. When searching for these contacts, do not hesitate to consult your provincial tourism office that will be happy to orient you to your resources. Our chapter on each region will also provide you with references in this regard.

Excellent technique manuals also exist in addition to guidebooks on specific regions.

3 DANGERS INHERENT TO THE SPORT

Safety starts with knowledge. Many factors related to the marine environment and the climate of large waters increase the risk of sea kayaking. These factors pose difficulties that kayakers must understand, be able to identify, and above all, learn to foresee in order to avoid accidents. The following are the main guidelines.

Coastline topography

The form and shape of a coastline influences the facility of launching and landing. Sometimes a coast consists only of inaccessible cliffs, prohibiting any kind of landing. Other times the low tide leaves behind extensive muddy stretches in which it is uncomfortable to wade before launching. Islands, capes, bays, and fjords can also complicate navigation both on the ocean and on large lakes. Having a good map at hand is thus a basic essential.

The marine environment

- **Cold water:** 8°C is the critical threshold. Swimming in water between 8 and 15°C is, though uncomfortable, tolerable. A forced plunge in water below 8°C can provoke hypothermia

within minutes, and if below 5°C, can pose a major threat to life.

- **Tides and currents:** though invisible, the current has great impact on kayaking. On the ocean, the current changes direction subsequent to the tides. This can either slow you down and/or cause you to drift far from your itinerary. The amplitude of tides can sometimes rise above 6 metres. Great caution is also to be taken in some regions with tides of one or less metres, as these can cause very dangerous currents. Recreational kayakers can maintain on average a speed to 2 to 3 knots* (3.5 to 5.5 km/h). **Currents between 1 to 4 knots are then regarded as average, while currents above 4 knots are significant.**
- **Wind:** some regions have prevailing and constant winds that can be easily forecasted. Wind has a drift effect similar to the current and can also rapidly decrease its ambient temperature. Sudden windblasts provoke strong, sometimes breaking waves and can cause you to drift very far from the banks. In

* (Knot: unit of speed corresponding to one nautical mile per hour, the equivalent of 1.85 km/h).

its weather forecasts, Environment Canada applies its terminology as follows: **light wind** – below 15 knots (28 km/h); **moderate** – 15-19 knots (28 to 35 km/h); **strong** – 20-33 knots (35 to 60 km/h). **Small craft warnings** are issued when sustained wind speeds are expected in the range of 20-33 knots. Sea kayaking specialists, however, refer to light winds as being below 15 km/h, to moderate winds as below 25 km/h, and to strong winds as above 25 km/h. Great care is thus to be taken when interpreting weather forecasts.

- **Fetch:** Fetch means the distance without obstacle on which wind can accelerate, favouring waves to build up. The larger this distance, the stronger the wind will be.

Maritime traffic

- **Cargo ships, fishing vessels and pleasure boats:** traffic can be dense on large, navigable channels and along certain coastlines. Cargo ships in these areas are obliged to adhere to exact routes, leaving them with no room to manoeuvre around you. It is your responsibility to steer out of their way. The crew of these huge ships cannot detect you on their radar, cannot spot you when beyond a distance of two miles (and that in clear weather), and lose

sight of you again when you are closer than a half mile to their ship.

- Know your rights and obligations as a pleasure boater and respect the navigational regulations in order to avoid collisions. Make sure that you are well seen and heard. To this effect, the colour of your kayak and your PFD can play an important role. Yellow, orange and red are the colours that are the most visible on water. Signalling devices should always be within hand's reach.

Communication

Travelling in more inhabited regions means that it will be easier for you to get emergency help and to launch, if necessary, search and rescue procedures. For Québec and the Atlantic Provinces, all zones above the 51st parallel are designated as remote areas, cut off from any resources.

- **The natural environment** in which an excursion takes place should not be taken lightly. Camping conditions, the presence of animals, evenness of terrain, and its remoteness can each trigger or influence minor incidents that could take on catastrophic dimensions.

- Capacity and reliability of communication: verify which medium of communication is most suitable for the region. Remember also that cellular telephones cannot be trusted to function reliably everywhere.

Weather conditions

Weather conditions on water are often very different from, and usually more difficult than, those encountered on land. Make sure to familiarize yourself with and to understand these – and, prepare for the worst.

- Waters are not spared by **thunderstorms**. A sudden squall can disrupt a body of water within minutes. If **lightning** hits water, it always seeks contact with the highest element. Do not stay in gravitational water when a thunderstorm builds up. Fog usually dissipates quickly on lakes; however it can appear quite suddenly and can stay several days in maritime zones.

Prevention will always be your closest ally. Kayakers wishing to make multi-day excursions should be very knowledgeable of weather patterns, map reading, radio communication, as well as emergency procedures. In addition, they should have solid navigational skills.



PARKS CANADA/JEAN AUDET

Always begin your journey together with at least one other kayak and leave a copy of your trip plan with a reliable person. Should this person not hear from you within a certain time, he or she will initiate search procedures.

When planning your itinerary, make allowances for potential dangers and make sure you have the necessary skills and equipment to deal with them.

4 WEATHER

Modern life has left us out of touch with the weather. We no longer pay it proper respect or know how to read its signs. Yet respecting and understanding weather is essential for outdoor activities, **especially sea kayaking**. Large bodies of water are susceptible to highly variable weather conditions that can have a considerable and rapid impact on boating conditions (wind, waves, tides, lightning, fog, etc.).

There are several ways to get a good idea of upcoming weather conditions. None of them are infallible, but in combination you should get fairly reliable information.

WEATHER FORECASTS

Forecasts issued by mainstream media outlets cover large areas and only give a general idea of weather conditions over land. For marine forecasts, you should listen to the weather reports broadcast on Weatheradio covering the southern part of the country. They are updated four times a day and can be received

using low-cost, pre-tuned receivers, VHF radios or scanners (see Chapter 19 for radio frequencies).

The **Canadian Coast Guard** also broadcasts continuous weather reports on the VHF band featuring general forecasts, forecasts for coastal areas, and notices to mariners.

BASIC KNOWLEDGE

It only takes a basic grasp of meteorological knowledge to interpret forecasts **and adapt them to local conditions**. **Caution: Weather conditions over water can be very different from those on land**. Listen to **marine weather forecasts regularly** (see Resources, and References).

Since the terminology used in forecasts is standardized, you should know your basic terms: units used for wind speed (km/h, knots, Beaufort), pressure (millibars or hectoPascals [hPa]), and wind direction. If you understand the forecast you'll be in a

better position to anticipate potential problems.

The arrival of a warm front generally means a progressive change (24 to 48 hours) that brings widespread rain. Cold fronts move rapidly and are accompanied by strong winds, storms, and squalls. Squalls are characterized by violent and sudden gusts of wind causing heavy swell. They can last up to 15 minutes and are a major danger for kayakers.

PARKS CANADA / D. ROSSSET



Weather conditions on the water can be very different to those on land.

STAY ALERT

A good sense of observation will help you keep track of changes in local weather conditions over the short term: changes in cloud cover, sharp variations in temperature, lay of the land, and local prevailing winds.

Wind speed, for example, can double in narrows, creating strong waves. In encased valleys, wind may blow from an unexpected direction and increase in intensity. Wind can also whip up the seas at the base of cliffs because of localized turbulence.

5 REGULATIONS

Although sea kayaking is a perfect way to get away from it all, it is also governed by certain laws and regulations that you must know and observe:

- Small Vessel Regulations
- Collision Regulations
- VHF Radiotelephony Practices and Procedures Regulations

Under the Canada Shipping Act, 2001 Transport Canada is the government department responsible for pleasure boating. Sea kayak is subject to the *Small Vessel Regulations* under the Act. Two categories of sea kayaks are targeted by the **regulations**: pleasure crafts not over 6 metres in length and pleasure crafts over 6 metres in length but not over 8 metres in length.

SMALL VESSEL REGULATIONS:

In order to abide by the regulations, you should keep the following equipment on board:

Boats 6 metres long and less

- 1. Personal flotation devices (PFD) or lifejackets approved for use in Canada and of a suitable size for each person on board.** PFDs must be comfortable and functional enough to be worn at all times. Highly visible, short models with pockets for distress flares, radio, and whistle are preferable.
- 2. A buoyant heaving line at least 15 metres long** (floating throwline or throwbag).
- 3. A manual propulsion device. The paddle** is the propulsion device and must be carefully selected. It may be made of wood, aluminium, plastic, or composite materials. The blades may be unfeathered or feathered. Two-piece take-apart paddles are also available in all three materials

and are good emergency paddles. There are models for every budget and taste, so try them before buying.

4. **A bailer or manual water pump for removing water.** A pump is more efficient. A large sponge can be used to remove remaining water. Don't forget to tie them down.
5. **A sound-signalling device.** You can use a whistle, a foghorn or compressed air foghorn.
6. **Navigation lights.** Between sundown and sunrise or when visibility is reduced, a white light visible over 360° is preferable, but a watertight flashlight is acceptable.

Boats between 6 and 8 metres long (26' 3"):

1. All that is required for boats 6 metres and less
2. **A waterproof flashlight**
3. **Six Type A, B or C flares.** (See Chapter 3: Specific Dangers, and Chapter 19: Communication).

Note: Boats are not required to be equipped with flares if they are used on rivers, canals or lakes **in which they can at no time be more than one mile** from shore.

COLLISION REGULATIONS

The Collision Regulations are part of the Canada Shipping Act, which is under the jurisdiction of Transport Canada and **also applies to sea kayaks**. It is important to follow the law to the



MIKE BEEDELL



letter when kayaking in areas used by other pleasure craft or commercial shipping.

The Collision Regulations state, "Every vessel shall use all available means to avoid collisions." They describe passing procedures, distances to respect, maximum speeds, and the use of light and sound-signalling devices.

Various types of navigational aids (buoys) are used to help get your bearings and identify channels, isolated dangers, and special areas (diving sites, anchorage, swimming areas, etc.). It is thus essential that you be able to recognize them.

WHEN SEA KAYAKING, PUT YOURSELF IN THE POSITION OF OTHER USERS

Remember, for example, that even in bright, calm conditions a kayak isn't visible more than two nautical miles away, the distance a large vessel covers in four minutes.

Keep in mind that powerboat operators and the crews of cargo vessels riding high on the water can't see anything on the water less than half a mile in front of them because their view is obstructed by the bow of the boat.

Understand that even though a sea kayak allows you to manoeuvre and change direction quickly, other users can't be expected to anticipate your actions or know how skilled you are.

Complying with the Collision Regulations is like complying with the Highway Code. It's a win-win situation.

Kayakers will be able to enjoy their sport in safety while earning the respect of the marine community.

VHF RADIOTELEPHONY REGULATIONS

The Radiotelephone Regulations are administered by Industry Canada. All radio operators must hold an operator's certificate (lifetime issue). If you go kayaking in coastal waters on a regular basis, a radiotelephone should be part of your basic equipment.

In addition to the regulations

MAINTAIN VISIBILITY ON THE WATER

A kayak is small in comparison with sailboats or other motorized pleasure crafts, fishing boats or with commercial vessels. Moreover, kayakers should maintain a preventive attitude and avoid putting themselves in situations where they cannot be seen by other boats.

The kayaker must be aware that his or her craft is very difficult to see on the water - and in any type of weather. When the kayak is in the hollow of a wave it becomes almost entirely invisible.

A kayak has very little speed and should therefore not be taken on channels or waterways. When crossing through large bodies of water, particularly at river mouths where sea traffic is heavy, extreme care is advised. The safest place for kayaking is along the shoreline.

If an approaching boat does not seem to recognize the kayak, the kayaker should signal his/her presence using sound (horn or whistle) or visual signals. The paddle is without doubt the piece of equipment with which the kayaker can best draw attention to him/herself.

Clothing and PFDs should have very bright colours. Even if new colours have been approved, orange is still the colour that is the most visible on the water in all conditions. Other ways of attracting attention in emergency situations are: a flag mounted on a branch, visual distress signals, flags, horns, and signalling mirrors.

CANADA IN A NUTSHELL

Aside from the coastline, sea kayaking is also done on freshwater, on small and large lakes, and on sections of rivers where the water is calm. Possibilities for kayaking in Canada are thus immense and could hardly be listed in a few pages.

Yet rather than a field guide, this brochure focuses on safety and aims to draw the readers' attention to conditions that are specific to each region in Canada. To establish his/her itinerary, the kayaker will have to consult maps and guidebooks of the region in addition to asking accredited associations for expert advice.

Boundaries here taken for demarcating Canadian territory correspond to the realities dictated by the ocean and by the great waterways of the country.

To help the reader assess a region's level of difficulty with more accuracy, we apply the concept of "zones". A particular zone refers to the difficulties that can generally be expected in this type of region. In the following pages you will be familiarized with the dangers specific to a particular region.

There are no zones that are free of difficulties. It is in your best interest to get informed about the difficulties of a given zone and to learn how to evaluate and anticipate the risks that it presents. This means that you should set up an itinerary that is in keeping with your level of technique, the difficulty of the territory, and anticipated weather conditions.

Above all, never overestimate your capacities nor underestimate the difficulty of an area, especially if you've never been there before. And, remember that when kayaking with others, the group has to adapt the level of difficulty to the least experienced kayaker.



KIM CROSBY, KAYAKBC.COM

6 ZONES

This chapter describes the specific characteristics of an area that present difficulty for kayaking. A very brief overview, this chapter cannot replace a deeper understanding of these difficulties, nor the command of techniques required to challenge them.

A zone, as conceived for the purposes of this brochure, is an area characterized by a certain number of difficulties. The more numerous and the greater these difficulties, the higher the level of the zone and the higher the risks associated with it. Remember that the risk level can only be reduced through knowledge of the area, through command of techniques, and through professional training where applicable.

An area includes those characteristics that are generally constant or predictable: size of the body of water, water temperature, speed of the current, height of the tides, and possibilities to find shelter quickly. These elements, among others, determine the level of difficulty of a zone.

Weather conditions constitute a further factor for determining difficulty. As weather is unpredictable, however, we will treat it separately for each zone. An identified level of difficulty is only valid for its defined weather conditions. A kayaker should know



MIKE BEEDELL

current weather conditions, be informed about weather forecasts before starting the trip, and be attentive to weather conditions throughout the entire trip. When weather conditions surpass those defined in the zone, the trip should be postponed or another region for kayaking should be chosen.

The level of difficulty assigned to each zone applies to the summer season, meaning generally the months of June through August.



MIKE BEEDELL

Outside of this period, changing conditions make for a higher level of difficulty.

The classification of areas into four zones of difficulty is a common approach and practiced worldwide. However, other organizations or guidebooks may well have different scales for measuring difficulty. In any case, zones should be studied with care to determine if your level of knowledge and mastery of technique correspond to the difficulty of the area in question. When in doubt, contact local sources of the area you wish to explore.

In conclusion, one word on itineraries: An itinerary represents your choice of the journey and a somewhat subjective slicing-up of an area. The level of difficulty of an itinerary is not related to the area but rather to your personal choices. If you foresee to cover a few kilometres in one afternoon, calculating for time to rest, we are dealing with an easy itinerary. However, if you plan for 30-kilometre sections or sections lasting 8 hours or longer, we are dealing with a very challenging itinerary.

A medium pace for recreational sea kayaking is considered to be around 3 kilometres per hour. We advise to plan for five-hour days,

allowing you to cover 15 kilometres per day. Naturally, this also depends on your physical condition, your level of technique, and the level of your chosen zone.

ZONE I - LOW level of difficulty

Small lake or a stream of water with a low flow-rate. Topography does not present obstacles for orientation. Many possibilities to find shelter. Easy landing: numerous and easy sites, beaches.

Freshwater body of water. Water temperature is acceptable, generally above 18°C and even higher during summer. Current varies from 0 to 2 knots. As the area is usually sheltered, the fetch is limited and the wind rarely causes problems.

Civilization/isolation, assistance: easy access to refresh supplies, communication, emergency care or other help.

Corresponding weather conditions: light wind (less than 15 km/h), perfect visibility, no precipitation.

ZONE II - MODERATE level of difficulty

Large freshwater lakes and reservoirs. Numerous islands and bays: difficult orientation.

Possibility of wind blasts. Coast exposed to average wind yet with many possibilities to find shelter: islands, bays, ports. Ease of landing: numerous and generally easy sites.

Saltwater. Water temperature: cold, on average between 12 and 18°C. Tide below 1.5 metres. Consistent winds and a current between 2 and 4 knots.

Civilization/isolation, assistance: relatively populated, inconsistent levels of assistance. Means of communication other than VHF (cellular telephones) are less reliable.

Maritime recreational boating.

Corresponding weather conditions: Surface or ocean calm and light winds below 15 km/h.

ZONE III – HIGH level of difficulty

Coastline exposed to wind: very few places to find shelter. Ocean currents complicated by the tides. Considerable fetch can generate surges and surf zones that make landing difficult. Rough ocean: waves, choppy sea, surges, spray, surf. Ease of landing: sufficient yet sometimes difficult, beaches, pebbles and rocks.

Water temperature: on average between 8 and 12°C. Water is permanently very cold and can be life-threatening in case of capsizing. Currents above 4 knots.

Civilization/isolation, assistance: coastal region not very populated. Help in case of an emergency may take a certain amount of time even if VHF radio communication functions. Presence of maritime pleasure boating. Considerable presence of commercial vessels.

Corresponding weather conditions: moderate wind below 25 km/h. Abrupt change of weather possible.

ZONE IV – VERY HIGH level of difficulty

Isolated region, subjected to severe climate. Tumultuous sea with

very strong currents. Zone likely to get very powerful winds that generate a considerable surge and obliging to surf in order to reach land or to start off. Currents above 4 knots, choppy sea, standing waves, etc.

Ease of landing: very few possibilities, uneven coast that is difficult to access. Cliffs.

Water temperature: below 5°C, a major risk heightened by the possible presence of icebergs or floating ice.

Civilization/isolation, assistance: almost non-existent outside help. Uninhabited coastal region. Only satellite communication is reliable. Presence of maritime pleasure boating. Almost no maritime traffic.

Corresponding weather conditions: Expect the worst!

The following is a very general presentation of zones of various levels as they occur within regions throughout Canada. As the territory covered within one zone is vast, some parts of this zone may be less difficult. This is why it is important to obtain solid information from local sources.

7 NEWFOUNDLAND AND LABRADOR REGION

Befitting a place with its very own time zone, Newfoundland and Labrador offers something out of the ordinary. Carved by glaciers that retreated about 10,000 years ago, the land continues to be shaped by ocean waves; sea ice, the weather characteristic of maritime climate. With almost 10,000 km of coastline, the Island offers endless opportunity for novice and expert paddlers alike. The coast of Labrador adds another 7,000 km for the more proficient kayaker. From sea stacks to secluded coves, from whale pods to bird colonies expect a drama of varied scenery and marine life from this rugged coastline.

And come prepared. Surface water temperatures in summer average 12°C inshore on the Atlantic side, and are only marginally warmer on the Gulf side. Newfoundland's large lakes, such as the Grand, Red Indian, and Gander, are ocean-like bodies of water and are also very cold even in summer. Sea kayakers should have appropriate thermal protection – either wet or dry suits – for all paddling excursions.

Other factors also unite to produce paddling environment which in many areas of the province qualifies as a Zone III or IV. These include a sparse population, rugged landforms, and changeable weather. The

prevailing winds are westerlies, but squalls can come unexpectedly from any direction. Characteristically strong winds can create rough ocean conditions and impede landing opportunities. Fjords and sounds are subject to wind funneling. Tidal currents seldom achieve rates greater than about 1 knot/h in Newfoundland waters, although rates up to about 4 knots/h occur in certain conditions among islands.

Paddlers should choose areas that do not exceed skill level. Novice and intermediate paddlers should consider sheltered bays and archipelagos. Long stretches of exposed coastline should only be explored by advanced paddlers. Local advice on landing sites, navigational hazards, weather forecasts, and communications (cell phone, VHF coverage) should be obtained by all paddlers considering an unfamiliar coastline.

Finally, because of the nature of the coastline and local weather, the paddler can encounter **Zones I through IV in any one of the regions listed below. Paddlers should be aware that within one area, all Zones might be encountered.** One such popular kayaking destination is Cape



DEPARTMENT OF TOURISM, CULTURE AND RECREATION

Broyle. Protected from all but easterly winds, the novice may enjoy a Zone I paddle at the head of the bay, within reach of the community and easy landings. Paddling toward the mouth of the bay, conditions could deteriorate to a Zone IV: few landing options, steep cliffs with rebound waves, significant swells, and hazardous offshore winds.

Zones III and IV

East Coast

Bonavista Bay and the north shore of Trinity Bay offer a diversity of short and multi-day paddling trips. Both are sparsely inhabited. Bonavista Bay has considerable pleasure boat traffic. It is studded with islands, which present navigational challenges. Its channels are exposed to open seas and rough conditions with strong easterlies. Newman Sound, in Terra Nova National Park, can be subject to

strong southwesterly winds but numerous coves offer shelter, warmer water temperatures, and backcountry campsites. Rough seas can develop nearer the open ocean from strong northeasterlies.

The relatively populated south shore of Trinity Bay is exposed to an extended westerly fetch. Conception Bay is the most populated within the area and offers shelter, particularly at the head. Moderate swells and choppy conditions can result from strong northeasterlies.

The East Coast of the Avalon Peninsula offers the possibility of calm inner harbours, such as Cape Broyle, Aquaforte, and Calvert. Several outfitters operate along this coastline. Sea caves can be dangerous and should be explored only under ideal conditions, avoid heavy swells. Numerous whales can be seen feeding and must be granted a respectful distance. However, the exposed coastline open to the North Atlantic should be explored by advanced paddlers only, as any easterly winds bring potentially dangerous conditions: swells, choppy seas and rebound near cliffs. Overall the areas are comprised of steep cliffs with few landing sites, and are practically uninhabited.

North Coast

Notre Dame Bay offers hundreds of islands to explore. The area is accessible by many side roads, has numerous landing spots and

small outports. Some shallow waterways are warm enough to permit swimming comfortably. Winds from the north and south-west can create whitecaps between islands and choppy paddling conditions within moments. Northern tips of some larger islands can be subject to rebound waves. Outer reaches in particular are exposed to the glacial Labrador Current and open to swells. Sea ice may linger through June in the western part and are often present until late June in the inner Bay of Exploits. It should be noted by all that at this stage, icebergs are unstable and can roll without warning.

A steeply sloped, thickly forested and uninhabited coastline with up to 20 km between landing sites characterizes the East Coast of the Northern Peninsula.

South Coast

West of the Burin Peninsula, the area is remote, has steep cliffs with long stretches between landing sites, and is exposed to prevailing southwesterlies. Numerous Fjords offer shelter, but their configuration often creates a wind-funneling hazard.

Fog is more common along this coast. Although the fog is accompanied by strong winds, it is frequently too dense and widespread for winds to have much clearing effect. The Burgeo archipelago

presents an exception. Accessible by road, the multiple island and sandy beach complex offers a haven for paddlers during big seas.

The inner reaches of St. Mary's Bay and Placentia Bay, as well as the Merasheen archipelago, offer good paddling. Waters are exposed to strong southerly and easterly winds with associated fetch and rough seas. While landing spots are numerous, the areas are largely uninhabited. Fog can be a serious problem in summer.

West Coast

The Bay of Islands and Bonne Bay (within Gros Morne National Park) offer paddling variety. The outer coastline has continuous vertical cliffs exposed to the prevailing southwesterlies which frequently create very chaotic seas near shore. The Inner Arms, with numerous landing sites and small outports, is recommended for the novice. In both bays, sudden winds and funneling can create large waves. Katabatic winds can funnel down from the mountains producing immediate paddling hazards. The West Coast of the Northern Peninsula is a mainly low-lying rocky shore fully exposed to the prevailing winds. Ice may still be present in Strait of Belle Isle in early July. The frequency of fog during humid southwesterly airstreams increases along this Strait, and in the Bay St. George area to the south.

Labrador Coast

Compared to the mountainous, isolated and near inaccessible north coast, the south coast offers a scattering of communities along rolling, barren shores. The entire coastline is subject to sudden storms and very high winds. Winds channeling through bays and fjords can be particularly hazardous. Polar bears and icebergs present additional hazards. These elements, together with the frigid waters of the Labrador Sea, demand detailed planning; preparation and prudence by experienced kayakers.

GENERAL INFORMATION ON NEWFOUNDLAND AND LABRADOR REGION

The Department of Tourism, Culture and Recreation

www.gov.nf.ca • info@tourism.gov.nf.ca or 1-800-563-NFLD

Hospitality Newfoundland and Labrador

www.hospitality.nf.ca or 1-800-230-3693

Adventure Tourism Association of Newfoundland and Labrador

1-709-722-2000

Kayak Newfoundland and Labrador (KNL)

www.kayakers.nf.ca/

Canoe Newfoundland

www.canoenfld.ca

Guide Books

Jim Price, Kevin Redmond and Dan Murphy, *Canyons, Coves and Coastal Waters*, Breakwater Books, 1996

Kevin Redmond, Dan Murphy, *Sea Kayaking Newfoundland and Labrador*, Nimbus Publishers, 2003

WEATHER

Channels 21B, 25B and 83B.

Environment Canada

Newfoundland Marine Forecast

www.weatheroffice.gc.ca/marine/index_e.html

Transport Canada, Marine Safety

Office of Boating Safety: 1-800-230-3693

www.boatingsafety.gc.ca/

Canadian Coast Guard

Marine Pollution Reporting: 1-800-230-3693

MARINE/AIR SEARCH AND RESCUE (SAR)

1-800-230-3693

1-709-772-5151

8 ATLANTIC REGION

NOVA SCOTIA, NEW BRUNSWICK AND PRINCE EDWARD ISLAND

The entire coastline of the Maritime Provinces is very accessible through roads and a vast network of ferries. Through Confederation Bridge, the longest bridge in the world that stretches over saltwater, Prince Edward Island is now linked with New Brunswick.

Zone 1

Inland waters of New Brunswick

Waters feeding the head of the Saint John River form a lake system linked by portages that are very accessible and suitable for family outings. The Saint John River, feeding into the ocean, is long and large: beginning in northwestern New Brunswick, where it functions as the border to the United-States, it ends in the Bay of Fundy. For those not thrown off by the idea of portaging at each weir, the river lends itself to a one-week trip. The sections between the weirs allow for one-day excursions. New Brunswick also has a number of lake systems as well as rivers with rising tides. The beginning of the St Croix River also leads to a lake system.

The Miramichi River is known for poling and for salmon fishing. The area by the mouth of the river, close to the town of Miramichi, is very suitable for sea kayaking.

Zone 2

The Baie des Chaleurs

The northern coastline of New Brunswick is very inhabited and offers many services. A series of splendid beaches await in the bay of the Nepisiguit River. The region of Miscou Island is somewhat more exposed to winds and the water there is colder.

Northumberland Strait and the northern coast of Prince Edward Island

This region includes coastlines of each of the three Maritime Provinces and is known for its extremely mild maritime climate. With water temperatures rising above 20°C at some sheltered points, the area is professed to have the warmest waters on the east coast north of the Carolinas. The coastline offers endless beaches and sand dunes and is not very foggy. While clearly at the ocean, the region receives heat from the mainland through

prevailing southwest winds. Tides stay below one metre. In the Northumberland Strait, a weak current flows from west to east. The region is very inhabited.

Though more exposed to the gulf wind, the northern coast of Prince Edward Island does not present more difficulty for kayakers.

Bras d'Or Lake

Situated on mainland Cape Breton, this immense saltwater lake is protected from the fog and storms of the Atlantic Ocean. Nevertheless, due to its great size, it can be subjected to very strong winds. We may think of Bras d'Or Lake as an inland ocean with numerous channels that link it to the sea. On the coastlines of its warm waters we find many towns, marinas, and a rural landscape. The region is very inhabited.

Grand Lake and Spednic Lake in New Brunswick are also of interest to kayakers, though these should be wary of the winds that may appear abruptly on the lakes' relatively shallow waters.



PARKS CANADA / J. BEARDSELL

Nova Scotia's Kejimikujik National Park region also offers great opportunity for lake kayaking and also has a very interesting coastline.

Zone 3

Eastern and southern coastline

The eastern and southern coastline of Nova Scotia is very exposed to Atlantic winds. However, along the

entire stretch of this coastline kayakers can find numerous ports, creeks, islets and islands that offer refuge in case of difficulty. The water is warm enough for bathing in the summer, though still too cold for longer swims. This is the region of the Maritimes with the most frequent fog, especially from May through July. Prevailing winds are from east to southwest wind and storms are short. Tides vary from 1.5 to 2.5 m and the current is negligible.

The southern part of the coastline up until Shelburne is influenced by the Bay of Fundy, meaning that tides can reach 4 m, followed by considerable currents. This region is also very foggy and water temperature varies from 13 to 18°C.

Cape Breton

The northern part of Cape Breton is continually exposed to heavy winds (NW and SE). Not very many islands line the shore. Shoals, sandbars as well as strong currents are common and make for difficult access to the ports. There are not many good places to land. Water temperature often rises above 16°C in summer and the region is not very foggy. Tides vary from 1 m on the gulf side to 2 m on the Atlantic side.

The coastline is savage and not very inhabited. Yet the landscape is overwhelming, offering views to astonishing heights. People are welcoming and outside help is accessible.

Zone 4

The Bay of Fundy

The first advice to a kayaker venturing into this region is to purchase a tide table for the Bay of Fundy. Varying from 6 m (Grand Manan Island) to 18 m (Minas Basin), these tides hold the world record for amplitude and result in strong currents that can reach up to 8 knots. Moreover, the ocean is often deceptive. Feeling assured upon leaving shore at high tide when everything is calm, you may come to feel as if in a giant whirlpool only three hours later. Long stretches of mud whirled up after at low tide are also very unappealing. Or, glitchy pebbles hidden under

the grass may complicate landing or setting camp.

Wind may rise abruptly within minutes, and when counter-current, may create standing waves that make it difficult to manoeuvre. Moreover, this inhospitable coast has the highest cliffs of the Maritime coastline. In general, there is no place to find shelter. However, the Bay of Passamaquoddy and its islands are protected from the Atlantic winds and present one of the most beautiful wildlife areas of the Maritimes.

Water in this region is also very cold, rising rarely above 13°C. Even in summer, campers have to wear hats and mittens. Fog is often so dense that kayakers cannot see the tip of their own kayak. (People of the region say that the fog is so dense that you can lean against it).

Sea traffic is very dense at the entrance and exits of ports and commercial fishing vessels move very quickly.

The water movement, however, whirls up many nutrients, making for a rich environment for marine and bird wildlife.

We conclude with advice to all kayakers who plan to visit these waters for a first time: make use of services offered by experienced guides.

GENERAL INFORMATION ON MARITIMES REGION

Nova Scotia

Canoe Kayak Nova Scotia

canoens@sportns.ns.ca

www.ckns.ca

Nova Scotia Tourism

www.gov.ns.ca/tourism.htm

Nova Scotia Adventure Tourism Association

www.adventurenovascotia.com

New Brunswick

Canoe New Brunswick

president@canoenb.org

www.canoekayaknb.org

New Brunswick Tourism

www.tourismnewbrunswick.ca

Prince Edward Island

Prince Edward Island Information Centre

www.gov.pe.ca

Tourism Industry Association of Prince Edward Island

www.tiapei.pe.ca • tiapel@pei.sympatico.ca

Guide books

Scott Cunningham, *Sea Kayaking in Nova Scotia*, Nimbus Publishing, 1996

Alison Hughes, *Paddling in Paradise*, Goose Lane Editions, 2002

WEATHER

Channels 21B, 25B and 83B.

Transport Canada, Marine Safety

Office of Boating Safety : 1-800-387-4999

www.boatingsafety.gc.ca/

Canadian Coast Guard

Marine Pollution Reporting: 1-800-387-4999

MARINE/AIR SEARCH AND RESCUE (SAR)

1-800-565-1582

1-902-427-8200

9 QUÉBEC REGION

THE PROVINCE OF QUÉBEC

The province of Québec has abundant sea kayaking possibilities for all levels of difficulty. These include closed inland lakes, from smaller lakes to huge reservoirs, certain longer and calmer stretches of rivers, as well as the maritime and coastal portions in Saguenay, the St. Lawrence River and the Gulf.

Zone 1

Inland lakes: small and medium-size lakes, rivers with low currents

The entire province is dotted with small lakes, the water of which is not cold in summer. The lake systems are linked by portage paths, allowing for longer excursions. Although these portage paths usually do not present major difficulties, we point out that sea kayaks are not designed to be carried or transported on one's back over long distances.

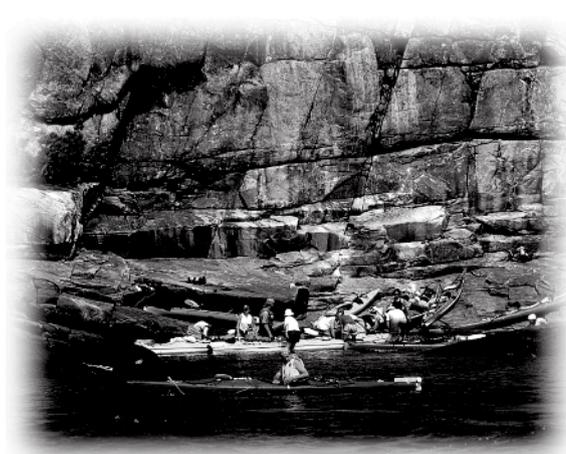
Some rivers have longer calm sections and low currents such as the Ottawa, the Richelieu and the Saint-Maurice rivers. Lakes and parts

of rivers may belong to regulated zones such as parks, wildlife reserves and Zones d'exploitation contrôlée, ZEC (controlled harvesting zones). Kayakers should thus get information about regulations and fees that may apply to their chosen area.

Zone 2

Great lakes and reservoirs, such as the Cabonga and Gouin Reservoirs, Lake Champlain, Lake Memphremagog, Lake Saint-Jean

Great bodies of water, either natural lakes or artificially created reservoirs, are dispersed throughout the territory of Québec. With no tides and currents, with warmer water in summer, and strewn with a multitude of islands, these waters make for exceptional kayaking. They also lend themselves to multi-day excursions and have yet to be fully exploited to this effect. The many islands and deep bays, however, are bound to challenge your navigational skills. On the larger waters, long stretches without obstacles favour wind acceleration (fetch), which can create enormous waves within minutes, causing the kayak to drift very far from the shore.



PARKS CANADA / JEAN AUDET

Large medium-current streams

The St. Lawrence River upstream from Québec and the Saguenay River-Fjord (with the exception of the river mouth).

The main difficulty in this region arises from high-traffic pleasure boating, especially during summer. Kayakers should know and follow the navigation regulations in effect. Many shores are private, reducing possibilities for landing and camping.

Zone 3

The reservoirs of the Manicouagan-Outarde ecological complex and Lake Mistassini. The river mouth of the Saguenay River, and the St. Lawrence River between Québec and Pointe-des-Monts (north shore) and Québec and Matane (south shore)

This maritime region influenced by the tides corresponds to the St. Lawrence River downstream from the Québec Bridge, to Saguenay and the Gulf of St. Lawrence. Though it is the largest accessible area, it may also pose the greatest difficulties.

The apparent proximity of the banks often gives a false impression of security. An unexpected, forced swim in cold water or the sudden appearance of strong waves remind us that these spots are not meant for beginners. On the larger waters, long stretches without obstacles favour wind acceleration (fetch), which can create enormous waves within minutes, causing the kayak to drift very far from shore.

Zone 4

The North Shore from Pointe-des-Monts to Natashquan, the Gaspé Peninsula of Matane at the Chaleurs Bay, James Bay, Hudson Bay and the entire territory above the 51st parallel

The Gulf of St. Lawrence is known worldwide for its rigorous climate and its navigational challenges. Cold currents and tides prevail and warm and cold winds can collide to provoke storms that are as sudden as they are violent. Fog can arise at any moment and traffic of large tankers and vessels is also very intense.

GENERAL INFORMATION ON QUEBEC REGION

Fédération québécoise du canot et du kayak

1-514-252-3001 ou info@canot-kayak.qc.ca
www.canot-kayak.qc.ca

Guide book

Guide des parcours canotables, tomes I et II, pour les plans d'eau intérieurs et rivières.

Parcs Canada

Information: 1-800-463-6769

Sépaq : parcs et réserves du Québec

Information: 1-800-665-6527 or www.sepaq.com

Tourisme Quebec - Quebec Tourism Information

<http://www.tourisme.gouv.qc.ca>
Information: 1-877-266-5687

WEATHER

Environnement Canada

Wetheradio: (162,475 Mhz, 162,55 Mhz or 162,40Mhz)
VHF Radio: Channels 21B (161,65 Mhz), 83B (161,775 Mhz) and 25B (161,85 Mhz)
<http://lavoieverte.qc.ec.gc.ca/meteo/>
Information: 1-800-463-4311

Transport Canada, Marine Safety

Office of Boating Safety: 1-418-648-5331
www.boatingsafety.gc.ca/

Canadian Coast Guard

Marine Pollution Reporting: 1-800-363- 4735

MARINE/AIR SEARCH AND RESCUE (SAR)

1-800-463-4393 1-418-648-3599

SÛRETE DU QUÉBEC

Inland Waters
Telephone: 911, cellular * 4141

10 ONTARIO, PRAIRIE AND NORTHERN REGIONS

ONTARIO, MANITOBA, SASKATCHEWAN, ALBERTA, NORTHWEST TERRITORIES AND NUNAVUT

Central Canada, which covers four provinces and two territories, may not seem very suitable for sea kayaking apart from the Great Lakes region and some other large waters. We forget, however, that Central Canada borders an ocean, namely the Arctic Ocean. Naturally, this ocean calls for extraordinary precautions due to the challenges it presents.

Zone 1

Typical rivers of the prairies and small lake systems in the plains

The prairies have many large rivers that flow pleasantly through terrains that are sometimes inhabited, sometimes barren. The Lower Red Deer River and the Milk River, for example, strike almost as lakes in their calmness and pose few technical difficulties apart from certain sections that can be very rocky. Some other rivers have a higher flow and demand a more developed command of kayaking techniques. Wave trains can also be encountered. The water of these rivers is generally cold.

Zone 2

Georgian Bay

The Georgian Bay is a very large body of water and thus subjected to winds. The east part of the bay has many islands and is relatively sheltered. The prevailing wind goes towards the shore and the water is warm in summer. Pleasure boat traffic in this area is quite heavy.

Mountain lakes

The water of the mountain lakes is very cold and does not favour swimming, even in summer. These lakes are often situated at the base of deep valleys into which forceful winds culminate. Weather can change very rapidly, provoking storms.

Zone 3

Great Lakes

The North Channel and the western part of the Bruce Peninsula are more exposed to strong winds. The east coast of the Bruce Peninsula and the southern part of the bay, although more protected, have few islands and few sheltered landing sites. Their

rocky shores are very difficult for landing, especially when the wind blows toward the shore, producing strong waves.

Other very large lakes: Lake Winnipeg, Reindeer Lake, Lake Athabaska

Even though these lakes are not always very cold, their large size makes them vulnerable to violent storms. Navigation is difficult; often their shores are not very inhabited and immediate assistance is almost non-existent.

Lake of the Woods at Kenora has a complex network of bays that are dotted with thousands of islands. Winds can be very violent at the larger mouths and navigation is difficult due to the great number of channels. Heavy maritime traffic.

Zone 4

Great Slave Lake, Great Bear Lake

Water temperature is very cold and weather conditions are harsh.

Lake Superior

Lake Superior is as vast as an ocean and its water is equally cold. It is essentially an ocean without the tide. Its surface is very exposed and in fall, waves often reach 6 metres or more. The eastern shoreline is more populated than the other shores.

Hudson Bay and James Bay

On these shores, tides spread lengthwise rather than upward. At low tide, long stretches of muddy water sometimes force kayakers to distance themselves up to 15 kilometres from the coast before being able to paddle with ease. Polar bears can be spotted on the west coast of the bay and further north, toward the Northwest Territories, temperature becomes extremely cold. Moreover, landing can be difficult.

MacKenzie River

This very long river reaches the Arctic Ocean. Heavy commercial traffic and abundant floating debris make navigation hazardous. Very cold water.

The Sub-arctic and Arctic

Northwest Territories, Nunavut

(These aspects also apply to Labrador and to northern British Columbia) Many kayakers arrive in the Great North and, though equipped with arms and gear, are not adequately prepared for tackling the glacial waters of the Arctic. This territory, also referred to as "the North", is an isolated region. Communication networks, whether VHF, e-mail or landline telephones, are limited and do not always function. Floodlights will be of little help as there is generally no one to see them.



PARKS CANADA/M. BOULLANNE

The cold is another factor that few travellers from warmer climates are capable of coping with. Some travellers arrive at the airport dressed inappropriately for the cold weather conditions. With water temperatures averaging at 5°C even in the middle of summer (in the southern part of the NWT), an immersion of only four minutes can cause severe hypothermia. People who are very sensitive to the cold have been witnessed to suffer strokes merely by putting their feet in the water. Additional replacement clothing has to be planned for and kept in watertight bags. A combination of protective measures as well as PFDs with increased protection against the cold should also be arranged for.

Wildlife, terrestrial as well as marine, also present an elevated risk factor. Campers must therefore keep in mind: a polar bear is a predator that attacks humans. Food odours can attract bears, wolves and foxes, even over long distances. Walruses, especially solitary ones, are known to be aggressive and do not hesitate to attack humans in order to protect their territory and their offspring. Whales are curious and pose a major threat when they come too close to the kayaks.

These breathtaking regions should only be explored under the guidance of experts who take charge of all aspects from equipment

to navigation. When choosing a tour operator, make sure their guides know the region you wish to visit and that they have the required safety equipment.

GENERAL INFORMATION ON ONTARIO, PRAIRIE AND NORTHERN REGIONS

Ontario

Ontario Recreational Canoeing Association

info@orca.on.ca • www.orca.on.ca

Manitoba

Manitoba Recreational Canoeing Association

www.paddle.mb.ca

Saskatchewan

Saskatchewan Canoe Association

1870 Lorne St, Regina SK S4P 2L7

Alberta

Alberta Recreational Canoeing Association

www.abcanoekayak.org • info@abcanoekayak.org

NUNAVUT

Nunavut Paddling Association

dkreuger@hotmail.com

Sport North

www.sportnorth.com

WEATHER

Great Lakes: channels 21B, 25B and 83B.

Transport Canada, Marine Safety

Office of Boating Safety:

- Ontario 1-877-281-8824
- Prairie and Northern 1-888-463-0521

www.boatingsafety.gc.ca

Canadian Coast Guard

Marine Pollution Reporting: 1-800-265-0237

MARINE/AIR SEARCH AND RESCUE (SAR)

1-800-267-7270 1-613-965-3870

11 PACIFIC REGION

BRITISH COLUMBIA AND YUKON

In British Columbia, the ocean is easily accessible and sea kayaking figures as a good way of discovering the natural and cultural attractions of the coastline. Eager to explore these numerous, close-by points of interest, many kayakers tend to underestimate the region's difficulties. Powerful currents, strong winds and cold water are the main risk factors. Some pleasure boaters, having traded their motorboat for a sea kayak, forget that they have no recourse anymore to a motor for their return trip or for when storms strike.

On the west coast, kayakers can go out to sea almost throughout the entire year. The following zone rankings, however, apply only to the summer season, meaning the beginning of May through the end of September. At any other time during the year, the level of difficulty for these areas rises by one rank; for example, a zone 2 becomes a zone 3. Here as elsewhere, knowledge of the area and a sense of respect for the ocean are the chief safety guards.

Zone 1

Inland waters in central and southern British Columbia

Small lakes and gentle rivers not greatly affected by wind, and

protected bays. The areas are generally inhabited. Examples: Wood Lake, Elk Lake and Williams Lake.

Zone 2 (with exceptions)

Mountain lakes and large rivers

Large lakes and rivers located throughout British Columbia and the Yukon. The main challenge of these waters is caused by high winds rushing into precipitous valleys, provoking steep waves of up to 1 metre on the large lakes. Some of these zones have very cold water, strong currents, low reliability communication channels, and sometimes considerable commercial shipping. Among these are Okanagan Lake, Kamloops Lake, Columbia River and Thompson River.

Inside Passage: between Vancouver Island and the mainland

The east coast of Vancouver Island, from Victoria to Port Hardy; and the west coast of British Columbia, from Vancouver to the Broughton Islands.

This is the region where most kayakers take their first lessons, conditions there being good throughout the summer season. However, water temperature stays between 7 and 11°C even in summer, as the turbulent current pushes cold water from the depths

of the waters up to the surface. Moreover, wind generally blows against the current, making for a rough sea. The greatest challenge of this zone rests in the very strong currents that can exceed 10 knots.

Inside Passage: exceptions

Even though this region is largely a zone 2, some sites qualify as a zone 3. Among these exceptions are: Skoukumchuck, where the current reaches 12 knots; and Seymour Narrows, which, with a current above 16 knots, is known for having the second fastest tide in the world. At some other spots, such as Discovery Passage, the tide creates very violent currents (these are well known and well-marked on the navigational charts). These moving masses of water can ruthlessly propel a kayak 1 kilometre away within only a few minutes; their force should thus never be underestimated! The Johnstone Strait is also a difficult region due to its strong and variable winds. Close to Victoria, the region of Southern Gulf Island also has many currents.

Zone 3 (with exceptions)

The West Coast of Vancouver Island

Although numerous fjords and coves offer shelter, this coastline is very exposed to winds that create surf, steep waves and a large swell. Significant maritime traffic in some areas, cold water and fog also characterize this coastline that has limited starting and landing sites. As the region is in large part uninhabited, services, search and rescue resources,

and communication channels are limited, if not non-existent.

One outfitter tells of a six-day excursion having lasted ten days. The group was forced to remain in one place longer than planned due to poor weather conditions. They arrived at shore in dire need of food and several had missed their return flights home.

Exceptions: very few, select sites on the west coast of Vancouver Island

Although this coast is in large part a zone 3, certain places qualify as a zone 4. Among these are the north of the island from Port Hardy to Brooks Peninsula, surroundings of Pachena Point, Nootka Island, Estevan Point, Tatchu Point, and the stretch from Victoria to Bamfield. These sites are exposed to surf and are almost inaccessible for landing.

Zone 4

The central part of the coast of British Columbia

FROM BELLA BELLA TO PRINCE-RUPERT.

This region is very isolated, offers few possibilities for landing, and VHF communication is unreliable and random. The coast is very exposed and often inaccessible. Currents of numerous channels reach 3 to 6 knots. The Hecate Strait is a very shallow body of water; when the wind rises, the sea becomes rough very quickly.



KIM CROSBY, KAYAKBC.COM

The west coast and east coast of the Queen Charlotte Archipelago

The coast of the Queen Charlotte Archipelago is unforgiving, remote from all services, exposed, and offers few landing sites because the continental shelf protrudes directly into the ocean. Considerable surf zones. Kayakers venturing into these corners must be very independent and experienced outdoor enthusiasts. Although better protected than some other sites, the coastline is also very isolated.

GENERAL INFORMATION ON PACIFIC REGION

British Columbia

Recreational Canoeing Association of British Columbia

www.bccanoe.ca ▪ info@bccanoe.com

British Columbia Tourism

www.hellobc.com ▪ www.britishcolumbia.com

Yukon

Yukon Paddling Association

gjmorgan@yt.sympatico.ca

Yukon Tourism

www.yukonweb.com/tourism

Guide Books

McGee, Pete Ed. *Kayak Routes of the Pacific Northwest Coast*, Greystone Books, Vancouver, 1998.

Snowden, Maryann. *Island Paddling: A Paddlers Guide to the Gulf Islands and Barkley Sound*. Orca Book Publishers, Victoria, 1997

WEATHER

Channels 21B and Wx1, 2, 3.

Transport Canada, Marine Safety

Office of Boating Safety: 1-604-666-2681

www.boatingsafety.gc.ca/

Canadian Coast Guard

Marine Pollution Reporting: 1-800-889-8852

MARINE/AIR SEARCH AND RESCUE (SAR)

1-800-567-5111

1-250-363-2333

12 PLANNING AND PREPARING THE TRIP

Sea kayaking is the ideal sport for getting off the beaten track. However, your choice of destination could take you to a remote location exposed to high winds, rapidly changing weather conditions or water that stays icy cold all year round. In such areas, the consequences of an oversight or accident can be compounded tenfold. So whether you are just going out for a short paddle or off on an expedition that will last many days, **careful planning and preparation is essential**. It could make all the difference in ensuring an enjoyable and memorable trip.

THREE-STEP PLANNING

1. Assessing your needs and deciding on a destination

- What are your requirements?
 - Experience and number of kayakers' skill level of least experienced member of group
 - Type of route agreeable to everyone in the group (lake, river, large body of water, coastal waters, environment, length, duration) and taking the least experienced into

account. An average of 10 nautical miles per day is reasonable for a group

- Rental of required equipment
- Transportation required
- Choosing a destination
- Time of year
- Remoteness
- Specific tourist region
- Service centre (parks, reserves, rentals, transportation)

2. Finding information and resources

- What documents and information do you need?
 - Charts, topographical maps, indexed maps
 - Tide table and sailing directions
 - Service centre business hours
 - Required authorizations, reservations, and/or contracts
 - Camping and accommodations
 - Equipment and gear needed
 - Personal gear (individual and group)

- Rental equipment and gear
- How much food and water do you need?
 - Drawing up a menu (food allergies, vegetarians)
 - Assessing nutritional value per weight and volume
 - Carrying and keeping food
- Do you need to be accompanied?
 - Finding a qualified guide or outfitter

3. Putting it all together

- Leave your trip plan with someone at home and a copy in a vehicle left behind.
- Plan a route and possible alternatives
- Draw up a contingency plan
- Select a group leader
- Draw up a list of equipment required
- Draw up a list of equipment available
- Assign tasks

PREPARATION REQUIRES CLEARLY IDENTIFIED TASKS

- Food: purchase, divide up, wrap, label and protect. Don't forget drinking water.
- Group gear and equipment: equipment available,

equipment required (purchase or rental) and check condition of equipment

- Personal gear: as per checklist
- Kayaks and accessories: equipment available, load capacity, rental equipment, check condition of equipment
- Navigation and safety equipment: maps, spherical or conventional compass, tide and current table, chart ruler, radio, flares, foghorn, first aid kit, repair kit, GPS
- Transportation, authorizations, contracts: transporting a kayak measuring 6 metres (19' 8") or longer requires certain equipment and preparation. Entry fees and/or reservations are required in parks and wildlife reserves. If you are dealing with a third party (guide or outfitter), check the guide's qualifications, the services offered, and the insurance coverage provided
- Information specific to the chosen location: local weather, direction and strength of prevailing winds, currents and tides, coastal geography, shipping traffic, distance between possible put-ins, availability of drinking water, campsites, and applicable regulations.

13 BEFORE SETTING OUT

Whether you are setting out for a few hours or a few days or more, **preparation is essential**. It can make all the difference between an enjoyable trip and a perilous exercise in survival. **Chapter 12 (Planning and Preparing an Excursion)** lists the steps for planning and preparing an excursion.

On a **longer trip**, you often need to be completely self-sufficient. Make sure you haven't forgotten anything **before setting out**. Mother Nature can be very unpredictable!

The checklist should help you avoid forgetting anything important.

The following list will help you ensure that everything is in good working order.

- Check the following before setting out:
 - Kayak: Watertightness of hull and compartments. Watertightness of compartment hatches. Lifting

toggles at bow and stern. Throwbag and/or floating throw line at least 15 metres long. Rudder or centreboard in good condition. Screws and bolts tight. Sprayskirt and pedals adjusted. PFD WORN

- Pump well attached
- Spare paddle in good condition (it's like a spare tire for your group)
- Paddle float functional and within easy reach
- Compass well attached (removable models)
- Map and watertight case within easy reach and well attached
- Foghorn in good condition (new gas cartridge and/or spare cartridge if necessary) or a second whistle
- Small watertight sack with extra clothing and paddle food within easy reach
- Radio in good working order (new and/or spare batteries)
- Distress flares in good working order (check expiry date) within easy reach



MIKE BEEPELL

- Working watertight flashlight with spare batteries;
- First aid kit suitable for the number of people and length of the excursion;
- Tide and current tables;
- Camping stove with appropriate fuel;
- Drinking water;
- Make sure you leave a copy of your trip plan and contingency plan with a third party;
- Listen to the latest weather and marine forecasts;
- Make sure everyone knows their safety precautions;
- Establish a clear operating framework for group members (group leader, last paddler, etc.). If you are not sure of your abilities, call on professional guides or outfitters.

Happy kayaking!

14 CHECKLIST

	Day Outings On Lakes and Rivers	For Excursions in Coastal Waters ADD	Overnight Excursions and Longer Add
<u>Material</u>	<ul style="list-style-type: none"> Sea kayak Paddle Sprayskirt One appropriately sized lifejackets or PFD per person Whistle or foghorn Throwline or throwbag (15 m or 50 ft.) Paddle floater Pump or bailer Small watertight bag Drinking water 	<ul style="list-style-type: none"> Kayak at least 4 metres or 13 feet long Take-apart emergency paddle Distress flares Compass Binoculars 	<ul style="list-style-type: none"> Tent Ground sheet Sleeping bag Camp stove and fuel Pots and pans Plates, cups, and utensils Kitchen kit (salt, pepper, tongs, biodegradable soap, matches, can opener, etc.) Food Toilet paper Small shovel Tarp
<u>Clothing</u>	<ul style="list-style-type: none"> Shoes or sandals Wool socks Shorts or pants Polyester T-shirt Long-sleeved synthetic fiber jacket Wool or polar fleece sweater Hat or cap with chin strap Raingear Change of clothing in watertight bag Cycling gloves <p>Beginning and end of season:</p> <ul style="list-style-type: none"> Wetsuit Neoprene boots and gloves Toque or balaclava 	<ul style="list-style-type: none"> Basic list, as well as warm clothing Even in the summer, the water is colder and weather conditions can change without warning. 	<p>Extra Clothing</p> <ul style="list-style-type: none"> Underwear Warm socks Pants T-shirt Shirt Sweater Shoes Extra toque Towel Rain pants
<u>Safety</u>	<ul style="list-style-type: none"> Sunglasses with cord Sunscreen Water bottle or thermos Topographical map or guide in watertight case First aid kit Watertight flashlight and batteries Insect repellent or mosquito net Rations (e.g., dehydrated fruit) Knife 	<ul style="list-style-type: none"> Weather or VHF radio Marine chart Tide table Marine weather forecast Extra drinking water 	<ul style="list-style-type: none"> Personal medication Extra pair of glasses or contact lenses Emergency rations Extra copies of maps Repair kit Sewing kit Water filter or extra drinking water Narrow line 3 mm x 20 m Extra batteries and candle Waterproof bags Matches in waterproof container Spare compass Reflective signaling device

15 NAVIGATION

During preparations, use your maps to draw up a route plan. It should include your departure and arrival points as well as stop-over points en route. It should also include a **contingency plan** that allows you to cut short your trip in the event of bad weather or for medical reasons. Plan on **one extra day** for every four days of travelling. You can use the extra days to rest, explore a particular site or to make up for delays. **Leave a**

copy of your detailed route plan with a family member or friend and keep them advised of delays and route changes. If you are overdue, this person will be able to provide valuable information for organizing a search & rescue operation.

A standard route plan should include the following: description of group; number, colour, and type of kayaks (solo, double); safety equipment carried; dates of calls to confirm positions; date and place of arrival; contingency plan, etc.

It is very important to notify the person who has your route plan of your safe arrival. This will avoid costly and unnecessary searches by search & rescue organizations.

Once on the water, a good map will be your most reliable tool if you know how to use it (orientation course). While it's true that most navigation is generally done visually, **the map will be your main source of information** (direction, currents, landmarks, local phenomena) and your primary reference for what you see. Keep it in a watertight, transparent case on the deck for **easy consultation**.



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Copies of your maps should be kept in another kayak. Experience in map reading takes practice. Get into the habit of checking your position regularly. You should **know your position at all times** or you run the risk of getting lost. Get used to locating coastal features, points of reference (landmarks), and navigational aids (buoys, lighthouses) to keep track of your progress. That way you'll move from one point of reference to the next.

In the event of reduced visibility, you should put ashore. In these conditions, you need a radar reflector and good knowledge of navigating with a compass. A spherical glass marine compass is more useful than a conventional compass. Don't take any risks. Stay as close as possible to shore.

If tides are a factor on your route, make sure you know their schedule, amplitude, and consequences (currents). Tide tables will provide all this information.

If you must absolutely cross a shipping lane, do so quickly and by the shortest possible route.

Because of their shallow draft, kayaks are the best way to get to certain sites. Enjoy them without abusing them—respect private



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property as well as plants and wildlife. **Chapter 16 on the environment gives useful advice on this subject.**

For your safety and that of other users, learn the strict regulations governing commercial ships and pleasure craft. Only by complying with these regulations will sea kayakers earn the respect of the marine community (**see Chapter 5, Regulations**).

16 ENVIRONMENT

The main appeal of sea kayaks is their ability to bring people into close contact with nature. With their shallow draft, kayaks move through the water quickly and quietly, enabling you to blend into the environment and making it easier to observe wildlife. Their carrying capacity also makes it possible to travel long distances, providing access to countless offshore islands.

While generally well-intentioned, kayakers may unknowingly have a severe negative impact on the environment. Certain sectors in parks and wildlife reserves classified as conservation or exclusion areas may be subject to specific regulations and/or codes of ethics. Find out what they are.

If you get too close to animals, you may disturb them. Repeated disturbances upset animals and may cause them to leave their habitats. When pregnant females and young animals are particularly sensitive, **don't get any closer than 200 metres.**

It is best to keep your distance and use a good pair of watertight binoculars. **Try to avoid abrupt changes in direction, shouting, and other noises.** Don't forget that kayaks move silently, which many animals interpret as the sign of a predator.

Make sure the animals can see you.

In Canada, some animals are in danger of becoming extinct. **Never chase them or seek them out.** If you run into some by chance, keep your distance. Go around them if they stay put or calmly continue on your way if they are moving.

Wetlands, riverbanks, and shorelines are often very fragile ecosystems. The wide variety of aquatic plants in marshes provides a perfect environment for a diverse animal population where larva, amphibians, fish, and waterfowl all have vital roles to play. Repeated visits by watercraft can very quickly upset the delicate balance.

Islands are often perceived as miniature oases far from civilization and thus undisturbed. This image, while very poetic, hides a little known truth—**small islands are very fragile**. Colonies of seabirds occasionally nest on them and **nesting areas are especially sensitive to disturbances**. Observe them from a distance and then continue on.

When **camping**, always treat the environment with the utmost respect. Since wastewater and latrine pits must be at least 30 metres from a water source, **islands less than 60 metres in diameter are unsuitable for camping**. Sloped riverbanks and shorelines are also fragile. Repeat visits can destroy the vegetation, create a depression and leave the ground bare. In heavy rain, water will run down the depression, causing severe erosion.

In coastal areas, tides can rise over five meters. Make sure your **campsite is above the high-water mark**. For the same reason, your kayaks should be hauled out of the water and tied up above the high-water mark. To protect the environment, you are strongly encouraged to **use a camping stove** rather than an open fire. If you must light a fire, try to do so in the inter-tidal zone. That way, there is no risk of the fire smouldering in the ground. The incoming tide will douse it and remove all traces.

Never leave a fire unattended and **thoroughly douse it with water** (not sand) before leaving. In order to diminish the environmental impact, try to avoid staying more than one night at the same site. Only serviced campsites or less sensitive areas like beaches and rocks can endure repeated use. Cover latrine and wastewater pits. Pack out all your garbage so that you leave nothing behind but your footprints and ripples.

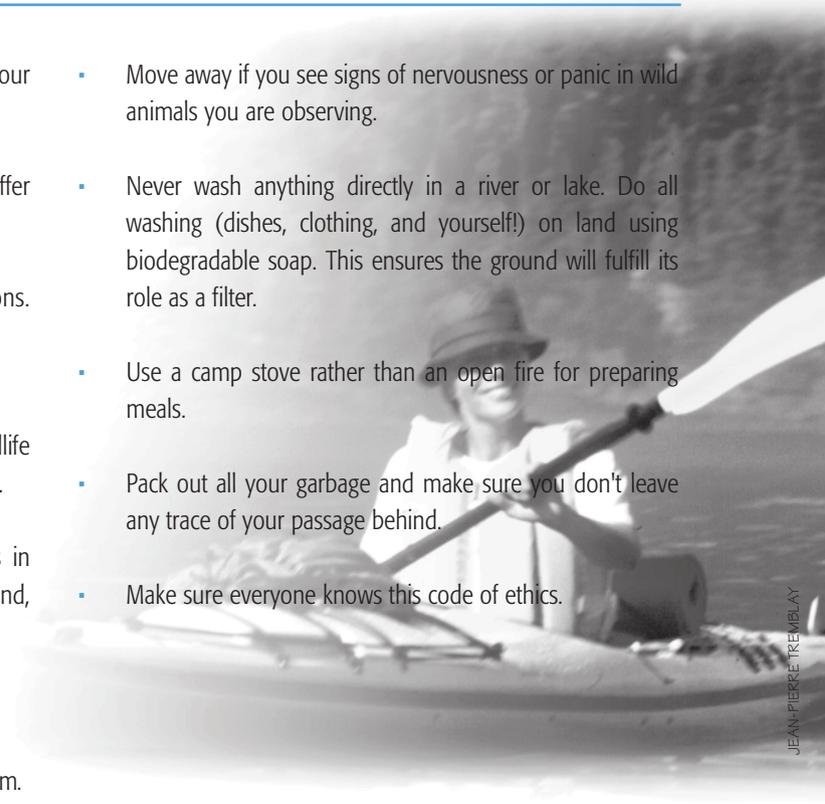
Fin whales
in the
St. Lawrence
estuary

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ETHICAL CODE

- **You** are the best person to ensure your safety. Plan your trips carefully.
- Remain courteous at all times and respect other users. Offer assistance to anyone who appears to be in trouble.
- Find out about and follow applicable regulations.
- Respect private property.
- Avoid abrupt changes in direction. They can disturb wildlife and may surprise other boaters using the body of water.
- Never camp on islands that are less than 60 metres in diameter or home to colonies of birds and seals. On land, avoid nesting areas and seal haul-outs.
- Never go within 200 metres of wild animals.
- Cut noise and speed near animals. Never circle or chase them.
- Move away if you see signs of nervousness or panic in wild animals you are observing.
- Never wash anything directly in a river or lake. Do all washing (dishes, clothing, and yourself!) on land using biodegradable soap. This ensures the ground will fulfill its role as a filter.
- Use a camp stove rather than an open fire for preparing meals.
- Pack out all your garbage and make sure you don't leave any trace of your passage behind.
- Make sure everyone knows this code of ethics.



JEAN-PIERRE TREMBLAY

17 RECOVERY

Don't underestimate the fatigue factor, especially if you don't go sea kayaking regularly. If your muscles cease to respond, drink some water, eat some energy-rich food, and, if possible, try to reach the shore to rest.

In case of extreme fatigue, you and your kayak can be towed by another kayak using the heaving line that you are required to carry with you at all times. The most experienced paddler of the group will tow you by attaching one end of the cord to his body and the other end to the bow of your kayak. This method is physically very demanding on the paddler and is intended solely for the purposes of transporting an exhausted person to a safe place as fast as possible.

The rafting technique consists of all kayakers of a group drawing their kayaks close together, each holding on to the next kayak. The entity as a whole is relatively stable and allows for each to rest without having to worry too much about losing balance.

When the sea starts to become rough, you will start to sense difficulties in maintaining your balance. At this point, you should

apply the leaning technique: place one side of the paddle on the surface of the water and push it towards the bottom to stabilize yourself. Withdraw the paddle diagonally out of the water and continue moving forward, which also helps you to maintain your balance.

Should you still find yourself in trouble, don't panic. It is almost easier to get out of a tipped-over kayak than it is to get out of one that is right side up. However, to get out of a kayak while right side up: Grab the ring in front of your spray apron and pull it towards you. Place one hand on each side of the cockpit and, leaning forwards, thrust yourself out of the kayak. When you return to the surface, keep in touch with your kayak and wait for help from your companions.

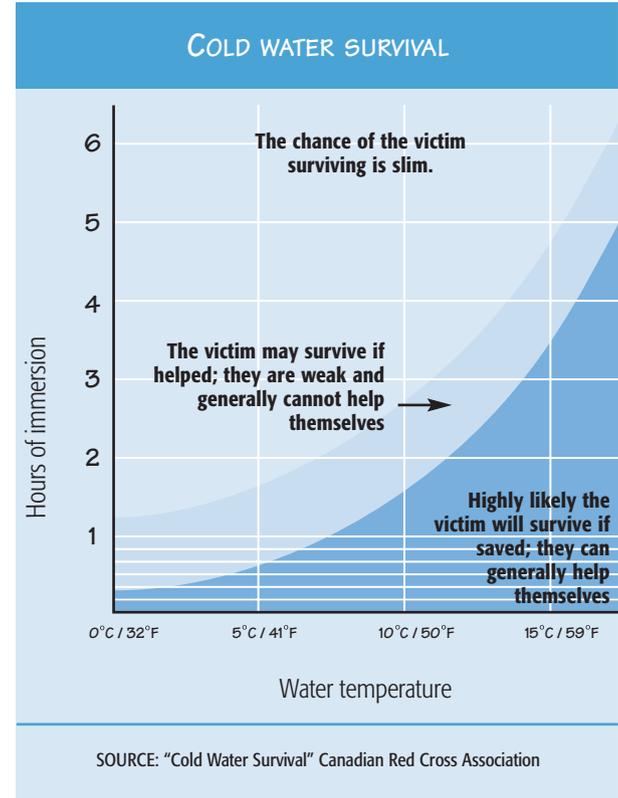
A paddle float will allow you to restabilize your kayak by yourself. Inflate it and place it at the end of the paddle that reaches into the water. Place the other end onto the kayak: the paddle is now perpendicular to the kayak, at the height of the cockpit. Using the paddle as a support, hoist yourself onto the kayak and into the

cockpit. Pump the water out of the kayak into the sea and replace the spray apron.

Naturally, these self-help procedures are easier said than done. We strongly urge kayakers to practice these techniques in controlled settings before starting out. And once again, for your safety, nothing can replace training and experience!



PIERRE TRUDEL



18 HYPOTHERMIA

Hypothermia is your **worst enemy**, especially in **extremely cold coastal waters**. It occurs when your body loses more heat than it can produce. If not treated quickly, **hypothermia can be fatal**. **Even in July**, a dunking in the waters of the Gulf of St. Lawrence can lead to a total loss of manual dexterity within 5 minutes and death within 15 to 20.

Immersion in cold water isn't the only cause of hypothermia. Although less obvious, the combination of factors such as fatigue, dehydration, hunger, wind, rain, and air temperature can also be dangerous.

Acute hypothermia: Uncontrollable shivering, loss of manual dexterity, generalized numbness

Chronic hypothermia: Shivering stops, difficulty speaking, confusion, loss of balance, sleepiness then unconsciousness

You should take hypothermia very seriously. Take steps to protect yourself by wearing appropriate clothing and doing all you can to help your body fight the cold (rest, drink water, eat properly).

TREATING HYPOTHERMIA

As soon as uncontrollable shivering and trembling (acute hypothermia) begins, take immediate action:

1. **Protect** the victim from the elements (get victim out of water, shelter from wind or rain).
2. Strip off wet clothing and replace with dry clothing. Cover head and neck (wool cap, sweater).
3. A warm sweet drink (**no alcohol or caffeine**) will help the victim warm up from the inside out. A flask of warm water under the arms will have a similar effect.
4. With mild hypothermia, exercise will help warm the victim. If the hypothermia is severe, place the person in a sleeping bag.
5. When body temperature returns to normal, give the victim something rich in carbohydrates and sugar to eat (dehydrated fruit, cereal bar, honey).
6. Rest as long as necessary before setting off again.

After the first four steps of treatment, **victims with chronic hypothermia must be evacuated** to a hospital as quickly as possible.

19 COMMUNICATION

CALLING FOR HELP

Radio: Frequency 156.8 MHz-channel 16. Signal: Mayday (3 times) indicating your name and position, the nature of the problem, and the type of assistance required.

Cell phone: *16 (See chapter 5 for restrictions).

Distress flares can be **Type A (parachute flare)**, **Type B (red star shells)**, and **Type C (hand flare)**. They burn from several seconds to a minute and can be seen for several miles, both day and night. It is strongly recommended that you bring along at least three flares. Even if you plan on staying close to the shore, **the wind and currents can quickly push you out** to sea where sound-signalling devices are useless. They are compulsory (at least 6) for kayaks over 6 metres (See Chapter 1, Kayaks, Equipment, and Clothing). Check the manufacture date and make sure they meet approved distress signal standards. Flares are approved for four years after the date of manufacture or as per manufacturer's expiration date.

A piece of orange nylon with either a black square or circle. The nylon provides a continuous distress signal. Any set-up featuring a square flag with a ball above or below serves that same purpose. Also note that a reflective surface like a metal travel mirror or compass back are excellent signal devices too.

Morse code sound or light signalling device. A one second signal equals a dot and a 4 to 6 second signal equals a dash.

Distress signals

Continuous sounding (dash) with a foghorn, a bell or a whistle at intervals of about one minute.

Flashlight : •••—•••• (S O S)

The following signals help draw the attention of approaching rescuers. **Smoke flares (Type D) and fluorescein dye** (see Chapter 5) are examples of such signalling devices. You can also slowly wave your outstretched arms by simultaneously and repeatedly raising and lowering them.

CANADIAN RESOURCES AND REFERENCES

Transport Canada

www.boatingsafety.gc.ca

Boating Safety Infoline: 1-800-267-6687

Canadian Hydrographic Service

Marine charts and Canadian tide tables: www.charts.gc.ca

Information: 1-877-775-0790

Environment Canada

Weather Office: weatheroffice.ec.gc.ca

VHF Broadcasting on Weatheradio Canada in Vancouver, Toronto, Montreal and Halifax

Parks Canada

www.parkscanada.gc.ca/

General Information: 1-800-463-6769

Canadian Wildlife Service

www.cws-scf.ec.gc.ca

Canadian Parks and Wilderness Society (CPAWS)

www.cpaws.org/

Canadian Recreational Canoeing Association

info@paddlingcanada.com

www.paddlingcanada.com



Fédération
québécoise
du canot
et du kayak



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