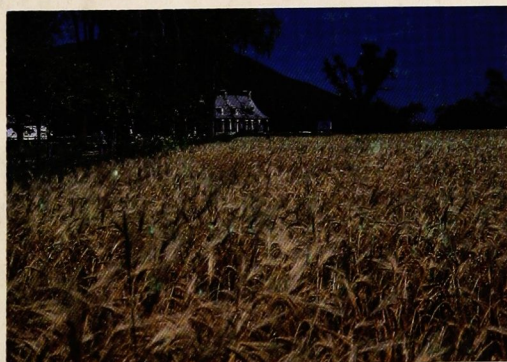


# Cap Tourmente National Wildlife Area Between Two Worlds



Environment  
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Canadian Wildlife  
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Service canadien  
de la faune

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RESERVE NATIONALE DE FAUNE DU CAP TOURMEN-  
TE : UN ESPACE ENTRE DEUX MONDES = CAP  
TOURMENTE NATIONAL WILDLIFE AREA : BETWEEN  
TWO WORLDS

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# Foreword

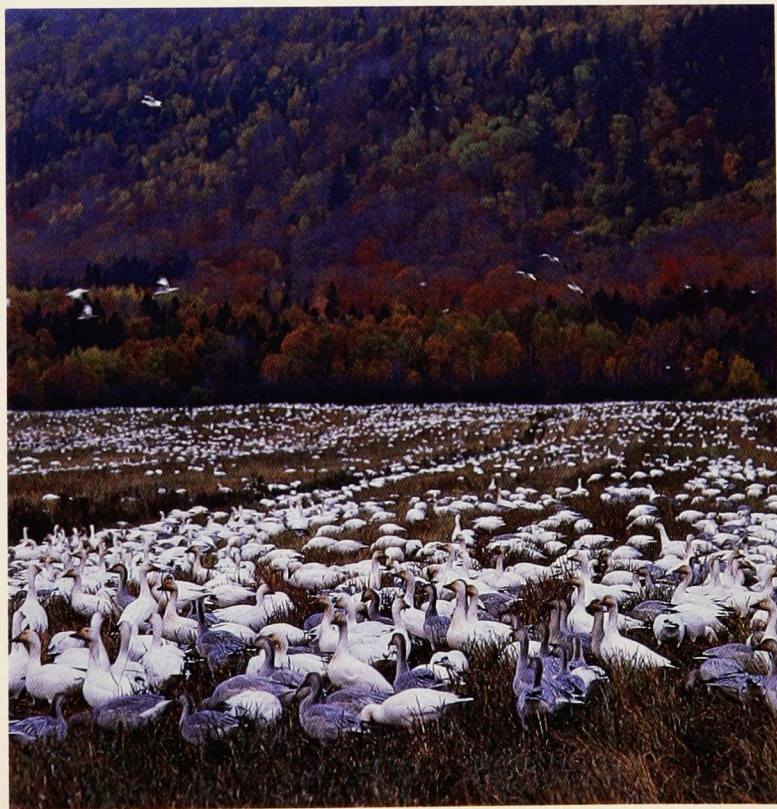
In January 1981, Canada became the first North American country to join the Ramsar Convention with the designation of the first Canadian site of recognized international importance: The Cap Tourmente National Wildlife Area. Cap Tourmente was a natural choice since its critical role in the migration of the world's only Greater Snow Goose population makes it an exemplary site.

Now doubly protected by its legal status as a national wildlife area and its Ramsar designation, Cap Tourmente has witnessed a spectacular increase in the Greater Snow Goose population since the area was created in the early 1970's. Snow goose numbers have more than tripled, rising from 89 000 in 1970 to 303 000 in 1986.

Because the magnificent white flocks attract nearly 100 000 visitors each year, Cap Tourmente plays an important role in promoting public awareness of the value of wetlands and the need to protect them.

Moreover, this wildlife area is more than just a habitat for the Greater Snow Goose. Ducks in the tens of thousands use it as a staging area in the fall and local sightings have been recorded for more than 250 bird species, including the endangered Peregrine Falcon. The presence of Peregrines at Cap Tourmente is a very recent development:

the first "wild" brood was observed in 1986 and most likely resulted from reintroduction efforts made in 1984.



# Historical Note

Long ago, the lands of Cap Tourmente were within the area of influence of the St Lawrence Iroquois nations. "Ajoaste," as the site was known in Iroquois, and the few neighbouring villages (Starnatam, Tailla, Sitadin and Stadacona) represented the most easterly, northerly and seaward advance of the Iroquoian Confederacy.

Samuel de Champlain, when he sailed up the St Lawrence River in 1608, named the promontory here "Cap de Tourmente" (cape of torment) because stormy conditions would rise up with the slightest wind. In 1626, under the direction of the de Caen family, he built a dwelling and stable — prototypes of our first farms — on the site now occupied by the "Maison de la faune."

A few years later, the "Compagnie des Cent-Associés" turned the site over to the "Compagnie de Beauré". It was then sold to Monseigneur de Laval, who acquired the "Seigneurie de Beauré et de l'île d'Orléans" in 1668 to provide material support for the seminary he was about to found. Laval left all his property to the Quebec Seminary in 1680 and the lands of Cap Tourmente continued to supply the seminary with meat, milk, butter and vegetables until the middle of the 20th century.

Although the site was acquired by the Canadian Wildlife Service on April 12, 1969, Cap Tourmente National Wildlife Area was not officially created until April 27, 1978.



# Discovering Cap Tourmente

Cap Tourmente National Wildlife Area is located on the north shore of the St Lawrence River about 50 km downstream from Québec City, the provincial capital. The 2 230-ha site can be reached via Highway 138 to Beaupré and Highway 360. The wildlife area extends immediately to the south and northeast of the villages of Saint-Joachim and Cap-Tourmente.

Situated at the junction of the St Lawrence Lowlands and the Laurentian Shield, the Cap Tourmente National Wildlife Area holds countless natural attractions and splendours to captivate visitors year-round and offers a magnificent view of the St Lawrence.

The spectacle of the assembling flocks of migrating white geese, thousands strong, is a stirring sight for birdwatchers and hunters alike.

To become better acquainted with the wildlife area, members of the public can take part in interpretation program activities hosted by naturalists — guided nature walks, audio-visual presentations and displays at the wildlife interpretation centre and the “Maison de la faune” — or explore the many nature trails at their own pace.

Recognizing the great heritage value of the

wildlife area property and its artefacts, the Canadian Wildlife Service has conducted a preliminary survey of the prehistoric sites it contains and designed a permanent display on the history of the “Petite-Ferme,” which is housed in the “Maison de la faune.”

Members of the public are cordially invited to come and discover Cap Tourmente National Wildlife Area, a beautiful and majestic place between two worlds.







# Natural Setting

The wildlife area has been the scene of remarkable natural phenomena. A major fault runs across the site from east to west and separates the Laurentian Shield from the St Lawrence Lowlands. The break is clearly visible in the form of an escarpment rising more than 150 m above the coastal plain.

The Laurentian Plateau that dominates the site is characterized by well-rounded, forest-covered summits with many streams. A

sheer cliff separates it from the lowlands and gives rise to numerous waterfalls. In contrast, the lowland region is much less rugged and washed along its lower reaches by the waters of the St Lawrence River.

After the long process of peneplanation (erosion tending to smooth out the relief) Cap Tourmente, which rose up to about 4 000 m in its early days, is now only 571 m above sea level. The result is a relatively flat plateau ending in a series of



caples mainly along the banks of the St Lawrence.

The major rock formations in the wildlife area are mainly granite but also include Trenton limestone, which can be found in the ravine cut by the stream "la Friponne."

Weathering, tidal action and waves have

worked to produce the physiographic units that exist today.

The coastal plain slopes gently downward toward the river. Its surface is marked by a series of perched beach ridges and a large marine terrace. Since colonisation this sector is devoted to agriculture, except for a wooded portion along its upper edge.

Seaward, the plain gives way to the coastal marsh, a narrow strip of somewhat marshy land about 200 m wide that is occasionally flooded by tides. Its relatively flat topography is broken by the channels of many small streams.

A sharp embankment 1 to 2 m high denotes the end of the coastal marsh and the start of the intertidal marsh, an irregularly shaped area that takes in more than 400 ha and is covered by normal tidal fluctuations. This smooth expanse of marine clays ranges from 60 to 760 m in width.



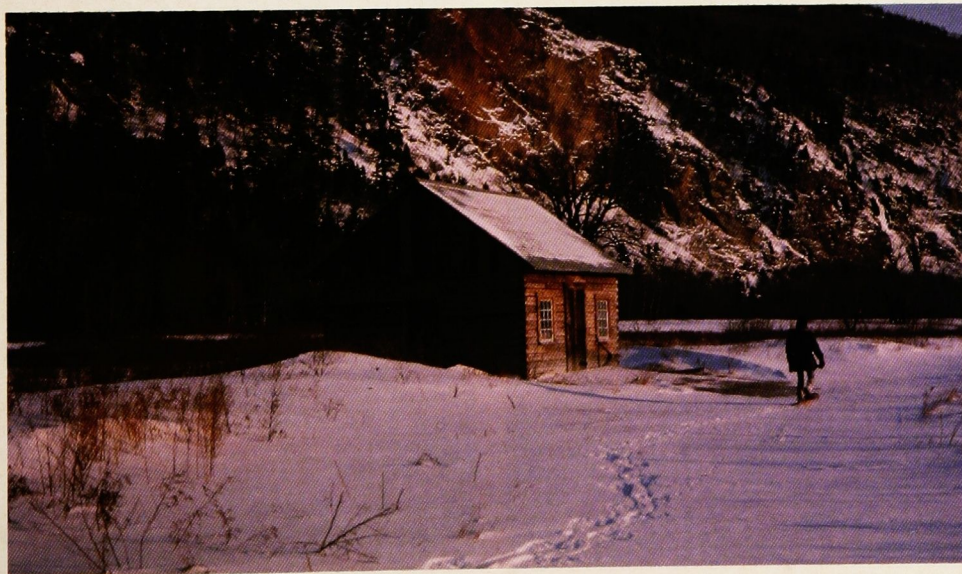
# Climate

The Cap Tourmente area has a cold temperate climate with humid winters and cool summers typical of the St Lawrence Estuary climatic region. The presence of the large water mass of the St Lawrence and the particular orientation of the faces of Cap Tourmente are the main factors that strongly influence day-to-day weather and help to create a local microclimate.

At Cap Tourmente, the Laurentian Shield and its escarpment are rugged and high enough to produce significant air mass turbulence. The configuration of the

escarpment with the convergence of the Laurentian and Appalachian mountain ranges forms a funnel that channels the St Lawrence river and considerably accelerates general airflow.

The influence of these climatic conditions on plant life is reflected by the gradient of northern vegetation groups (mainly coniferous forests) on the summit of the cape and southern ones (mainly deciduous forests) on the plain below.



# Vegetation

One astonishing feature of Cap Tourmente is the great variety of vegetation in a relatively limited area: more than 22 forest associations and nearly 700 plant species. The rapid succession of different habitats, from the river and the lowlands to the conifer-covered highlands, creates a highly

diversified whole that is unequalled in this region of Quebec. The wide range of forest associations places Cap Tourmente in the very narrow ecotone between the boreal and the Great Lakes and St Lawrence forest regions. Accordingly, the site is on the northern fringe of the range of many plant



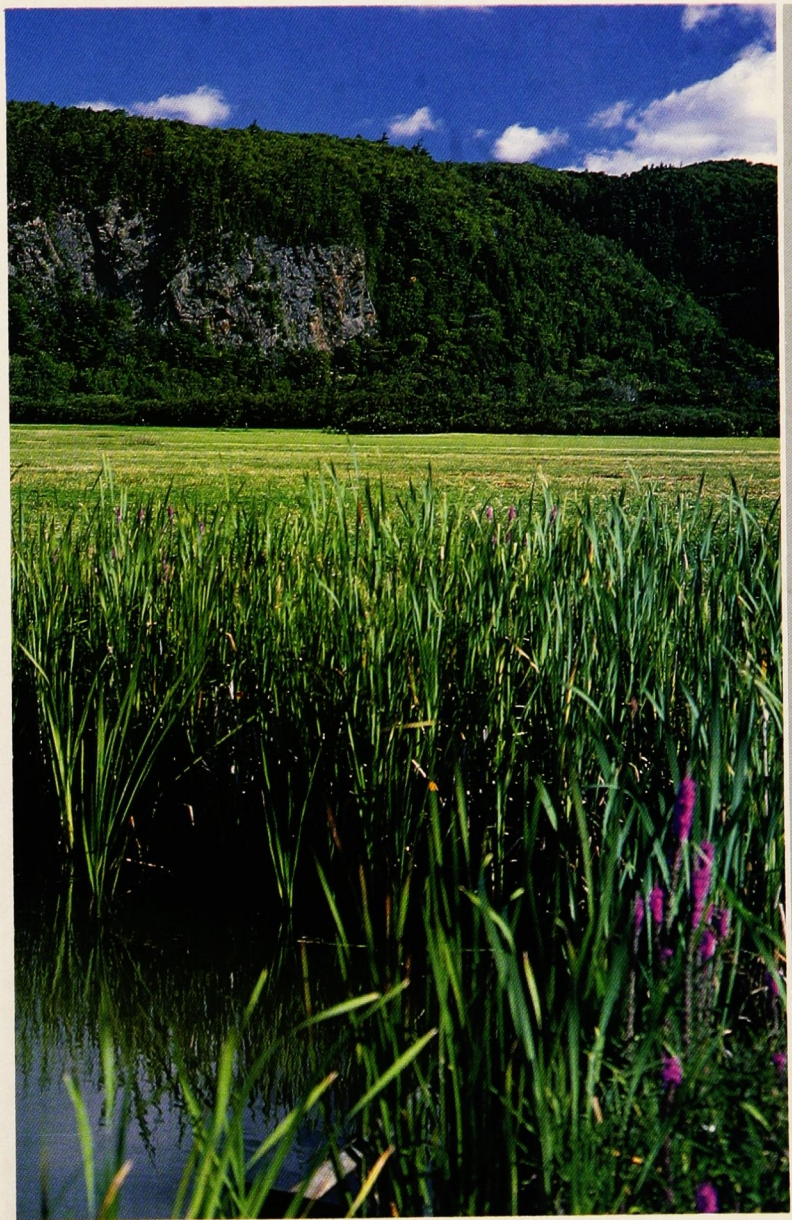
species, several considered rare in Quebec and Canada.

On the north shore of the St Lawrence River in the Cap Tourmente area, there are two major climax vegetation communities: the maple-yellow birch stands of the deciduous forest belt and the spruce stands of the coniferous belt.

The main forest species of the lowlands are Sugar Maple, Beech, White Birch, Eastern Hemlock, Eastern White Cedar, Balsam Poplar, Red Ash, White Ash, Trembling Aspen, Largetooth Aspen, White Elm and Red Oak. Toward the summit of Cap Tourmente appear Black Spruce, Balsam Fir, Red Spruce and Jack Pine.

Vegetation cover on the intertidal marsh is primarily American Bulrush, Wild Rice and Arrowhead. The bulrush rhizomes make up a very important part of the Greater Snow Goose diet.

The coastal marsh on the whole takes the form of a giant mosaic of plant groups dominated by goldenrods, Shore Horsetail, Purple Loosestrife, Spotted Jewelweed and Cow Vetch. Following closely along the contours of the upper boundary of the intertidal marsh, there is a uniform strip where Scaly Sedge and Erect Sedge predominate. Very dense growth of Sweet

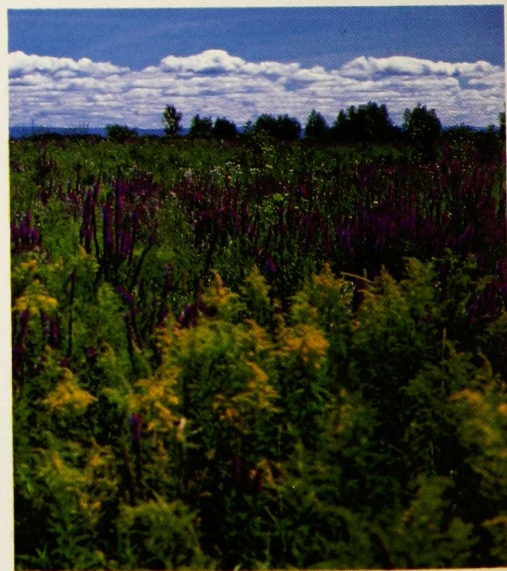


Gale is also found in some areas of the marsh.

On the coastal plain overlooking the coastal and intertidal marshes, the fields are sown with grain. At the edges of the fields, shrubs such as willows, Speckled Alder and cherries grow. White Elm is the most common tree along roadsides. In the ponds that have been created on the plain, cattails are abundant.

The Laurentian maple forest occupies the plain at the foot of the cape, and maple-

beech associations make up the dominant group in the forest complex. This group is found along the lower reaches of Cap Tourmente at altitudes up to 515 m. Toward the summit grow Yellow Birch, Black Spruce and Jack Pine stands.



# Wildlife

The great diversity of habitats and the abundance of transition areas contribute to the wide range of animal life on the site. The wildness of the property and restrictions on hunting for a number of years are factors that favour terrestrial wildlife. Meanwhile, the presence of the St Lawrence River, water courses and natural and man-made ponds allow aquatic wildlife to find shelter, food and breeding sites.



Over thirty mammal species visit or live in the wildlife area. Those seen most often include the Red Squirrel, Eastern Chipmunk, Red Fox, Woodchuck, Snowshoe Hare, Beaver, Muskrat and, on occasion, the Black Bear, White-tailed Deer, Raccoon, Long-tailed Weasel and Striped Skunk.

Cap Tourmente also provides shelter for a multitude of birds and to date more than 250 bird species from over 45 families have been identified at the site. Their great variety and substantial populations are in large part attributable to the favourable geographic setting of the wildlife area. Facilities for waterfowl have helped to increase the number of species by making additional bird habitats available. The duck and goose family is the best represented in terms of bird counts.







The primary goal of Cap Tourmente National Wildlife Area is to protect the habitat of the world's only Greater Snow Goose population. This once-endangered subspecies is today more than 300 000 strong and it is not uncommon to see tens of thousands of them on the flats of Cap Tourmente, where they feed on American Bulrush rhizomes in the marsh or graze in the fields.



In the fall, Cap Tourmente is the most important sector in the entire St Lawrence River corridor for dabbling ducks. Many other species — warblers in the spring and numerous songbirds in the spring and fall — are concentrated in the narrow

corridor formed by the river and the escarpment.

During the breeding season, about a hundred bird species rear their young within the boundaries of the wildlife area and in 1986 the Peregrine Falcon was added to the list.

The streams, ditches and ponds are also important spawning and rearing habitats for several fish species. Observant visitors may spot Yellow Perch in the des Graves Brook and Speckled Trout in the Petit-Sault and la Friponne brooks as well as smaller species such as sticklebacks.

Frogs and toads are among the most numerous amphibian residents. In the woods live the Spring Peeper, Wood Frog and American Toad, while the Bullfrog, Green Frog, Mink Frog and Northern Leopard Frog inhabit streams and ponds. The Blue-spotted Salamander and Eastern Redback Salamander find shelter under dead leaves, rocks and fallen logs.

The Common Garter Snake is the only reptile that has been identified to date within the wildlife area.



# Site Role

The Canada Wildlife Act of 1973 empowers the Canadian Wildlife Service to operate a national habitat program across the country and manage national wildlife areas for the purposes of wildlife conservation, research and interpretation. Accordingly, all activities in national wildlife areas are governed by the Act and its regulations.

The primary objective of the Cap Tourmente National Wildlife Area is protection of the tidal marsh habitat, which

is essential to the world's only Greater Snow Goose population. Priority is therefore given to conservation of the Greater Snow Goose and its habitat, although the many other habitats and the numerous wildlife species that depend on them are also taken into consideration. Human intervention is kept to a minimum in order to avoid disruption of the environment's self-regulating mechanisms.



# Activities

The Greater Snow Goose hunt is a traditional activity at Cap Tourmente. The Canadian Wildlife Service organizes the hunt in keeping with the principles of sound wildlife management and rational and controlled use of the site, and in accordance with the Greater Snow Goose Management Plan.

Wildlife area officials intend to maintain the hunt program in order to achieve better dispersal of the Greater Snow Goose flock over its range and allow Canadian hunters to enjoy this popular traditional sport.

The hunt takes place in clearly defined locations that are closed off to the public. At the same time, care is taken to ensure that staging areas are kept open so that the geese can feed in peace and visitors can watch them without disruption.

The hunting program is run according to the provisions of the Wildlife Area Regulations. Amendments to the Regulations are published annually in the Official Gazette of Canada.

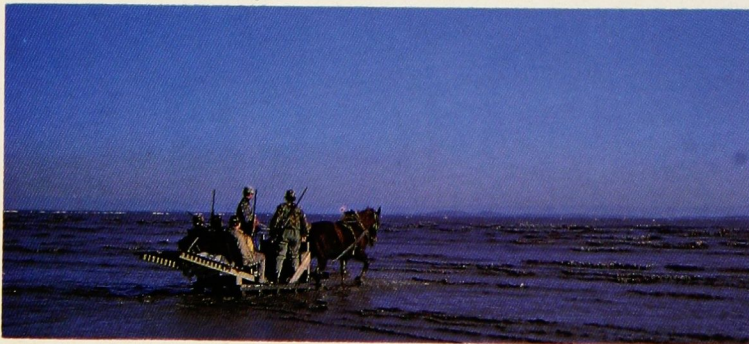
The Canadian Wildlife Service has allowed farming to continue on parts of the reserve since 1970, under the Wildlife Area Regulations.

The 243 ha devoted to agriculture are managed so as to:

- maintain, restore or improve the wildlife habitat to optimize conditions for the Greater Snow Goose;
- conserve a range of habitats to provide for a rich and varied wildlife community;
- respect the traditional rural character and major topographical features of the wildlife area.

In keeping with these criteria, juxtaposition of cultivated and non-cultivated zones is favoured and shrub borders along fields, water courses and wet spaces are left intact.

Since the site was acquired in 1969, the Canadian Wildlife Service has provided the public with suitable vantage points from which to enjoy the spectacle of wildlife and



has promoted appreciation of the importance of wildlife and the natural environment.

Over these years, high quality facilities have been built to improve access to the site. The 16 km of nature trails have encouraged the public to discover the site's attractions while at the same time reducing impact on the natural environment.

The wildlife area is accessible year-round, but in winter only a network of bird feeders is maintained. Some trails or trail sections may be closed at times for safety reasons or to permit maintenance.

Motor vehicles are allowed only on the main access road and in the parking lots. The nature trails are open to pedestrian traffic only.

An awareness program gives the public an opportunity to more fully appreciate and support the conservation and protection of the wildlife area's unique habitats. Visitor information and documentation are provided to:

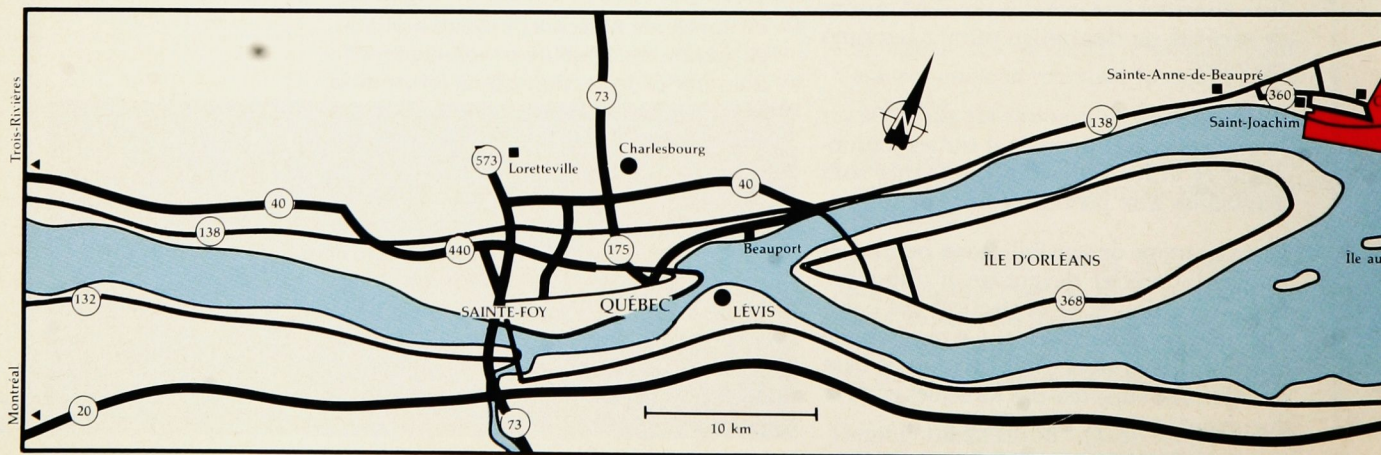
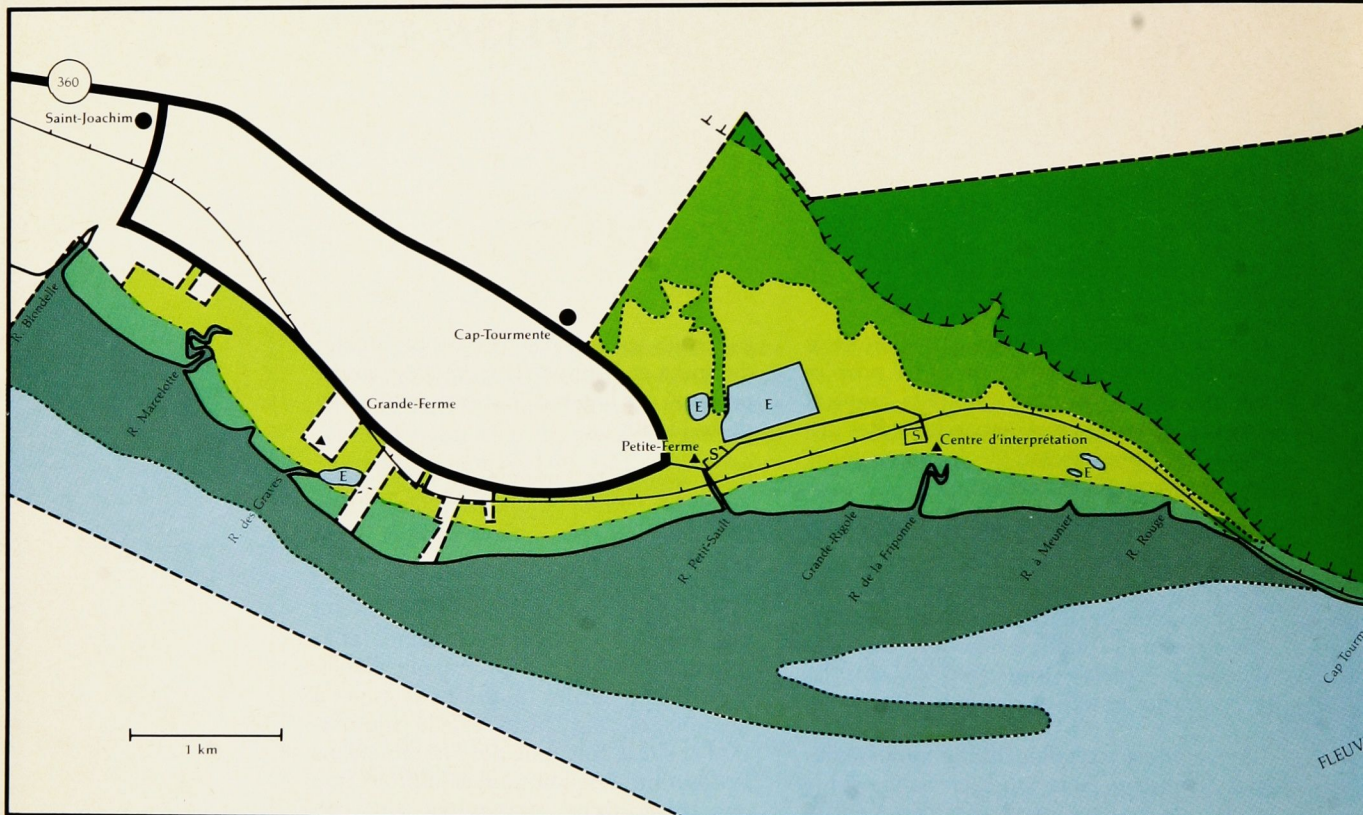
- explain the objectives of national wildlife areas and the importance of the Canadian Wildlife Service's national habitat program;

- encourage understanding, awareness and appreciation of the national and international importance of the wildlife area's unique ecosystem;

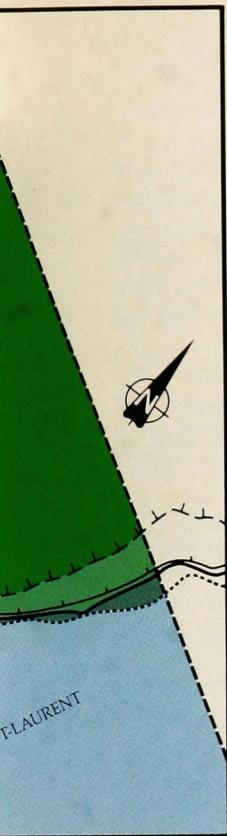
- explain the close ties that have always existed between man and the natural environment at Cap Tourmente while stressing traditions related to waterfowl, the history of settlement and the role of man in the use, harvesting and protection of the natural resources of the site;

- demonstrate the necessity of sound practices for the management of biological resources in order to ensure the long-term protection of Cap Tourmente National Wildlife Area.

The Canadian Wildlife Service also relies on the cooperation of various organizations taking part in the development of the site (ponds, lookout tower, and so on) and the management of specific efforts such as interpretation and activities at the "Maison de la faune." These private agencies work under agreements to provide high quality services.





# RÉSERVE NATIONALE DE FAUNE DU CAP TOURMENTE CAP TOURMENTE NATIONAL WILDLIFE AREA

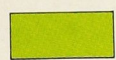



Baie-Comeau / Sept-Iles




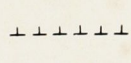
 Forêt du plateau  
Forested plateau

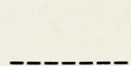
 Plaine côtière: boisé  
Coastal plain: wood

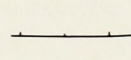
 Plaine côtière: agriculture  
Coastal plain: agriculture

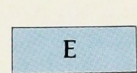
 Marais côtier  
Coastal marsh

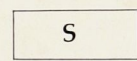
 Marais intertidal  
Tidal marsh

 Escarpement  
Escarpment

 Limites de la réserve  
nationale de faune  
National wildlife  
area boundaries

 Voie ferrée  
Railroad

 Aménagement pour  
la sauvagine  
Waterfowl management

 Stationnement  
Parking

