

CANADA 1: CAP TOURMENTE NATIONAL WILDLIFE AREA, QUEBEC

Information Sheet on Ramsar Wetlands

Effective Date of Information: The information provided is taken from the List of Canadian Wetlands Designated as of International Importance, May 1982 updated by the Canadian Wildlife Service - Quebec Region in October 2001.

Reference: This was the first Ramsar site designated in Canada and North America.

Name and Address of Compiler: Canadian Wildlife Service, Environment Canada, C.P. 10,100, 1141 rte de l'Église, Ste-Foy, Quebec, G1V 4H5.

Date of Ramsar Designation: Designated as Canada's first Ramsar site on 15 January 1981 when Canada acceded to the Ramsar Convention.

Geographical Coordinates: 47°04'N., 70°48'W.

General Location: Situated on the north shore of the St. Lawrence River, in Montmorency County, 50 km north-east of Quebec City, Quebec.

Area: 2 398 ha.

Wetland Type (Ramsar Classification System): *Marine and coastal wetlands:* Type A - marine waters; Type G - intertidal mud, sand, or salt flats; Type H - intertidal marshes. *Inland wetlands:* Type Q - permanent and seasonal brackish or saline flats and marshes; Type Sp - permanent freshwater ponds, marshes and swamps; Type W - shrub swamps; Type U - peatlands. Man-made wetlands: Type 6 - impoundments.

Altitude: Ranges from the summit of Cap Tourmente at 600 m to the tidal flats of the St. Lawrence at 2.5-5.0 m.

Overview (Principal Characteristics):

Physical Features (Geology, Geomorphology, Hydrology, Soils, Water, Climate): The Cap Tourmente marshes are situated on broad tidal flats subjected to heavy tidal flooding by fresh waters. Coastal sediments are up to 13 m deep. The tidal amplitude is 4.1 m at mean tides and 5.8 m at large tides. The coastal meadow which forms the inland border of the tidal marsh is a broad expanse of land flooded only by extreme tides greater than 5.5 m.

Ecological Features (Habitats, Vegetation): The site has a wide range of habitats and comprises 400 ha tidal marsh, 100 ha coastal meadow, 700 ha agricultural land and 1 198 ha forest. Habitats include coniferous and deciduous forests, ponds and ditches, coastal meadows and tidal marsh. The dominant plant is *Scirpus americanus* and secondary species include *Zizania palustris*, *Sagittaria cuneata* and *Sagittaria latifolia*. The *Scirpus americanus* marshes of the St. Lawrence are wetlands restricted to the freshwater tidal portion of the river with under 4 000 ha remaining, of which only 1 200 ha are situated on the coastal sediments capable of supporting dense luxuriant plant growth. Extensive mowing and grazing of

these meadows in the past has ceased and various stages of plant succession are now present with various sedges and shrubs dominating in many areas.

Land Tenure:

(a) Site: The 2 398 ha area of Cap Tourmente is owned by the Government of Canada.

(b) Surrounding Area: Mainly private land holdings.

Conservation Measures Taken: Designated as a National Wildlife Area on 27 April 1973. Established and subject to the National Wildlife Area Regulations under the *Canada Wildlife Act* of 1973.

Conservation Measures Proposed: None currently.

Current Land Use/Activities in:

(a) Site: Attempts to alleviate overgrazing of the marsh by Greater Snow Geese are aimed mainly at encouraging use of nearby tidal marshes by larger numbers of geese. Plans are presently being made to manage portions of the coastal meadow to provide supplementary feeding sites within the national wildlife area. Maintenance of the existing managed areas - the ponds and ditches - will be required to maintain the attraction of these areas to breeding ducks. Some hunting is allowed based on certain traditional methods such as the use of pit-blinds and horse-drawn mud sleds.

Management of drainage ditches, the construction of artificial ponds and protection of beaver *Castor canadensis* has improved the area for breeding ducks over the past decade.

(b) Surrounding Area: Mainly agricultural land uses.

Threats to Integrity of:

(a) Site: The site is situated just downstream from the heavily industrialized portion of the St. Lawrence (extending from Quebec City to the Great Lakes) and therefore remains vulnerable to the effects of toxic substances. Pollution from oil spills would be difficult to control due to the high tides. Increasing numbers of Greater Snow Geese have led to a depletion of *Scirpus* rhizomes which may eventually cause a deterioration of the marsh at Cap Tourmente.

(b) Surrounding Area: Rural land use development continues in surrounding areas.

Hydrological/Physical Values:

Social/Cultural Values: A number of prehistoric Amerindian are present on the site. Cap Tourmente was the first land fall for Jacques Cartier in 1535 where he encountered an Indian village named Ajoaste. Samuel de Champlain established a farm here in 1626.

Noteworthy Fauna: The diet of Greater Snow Geese *Anser caerulescens atlanticus* here is composed mainly of underground parts of *Scirpus americanus* although in recent years other marsh plants and agricultural grasses have been consumed. These marshes also serve as important staging areas for large numbers of surface feeding ducks, mainly Black Duck *Anas rubripes*, Green-winged Teal *Anas crecca carolinensis*, Blue-winged Teal *Anas discors* and Pintail *Anas acuta*. Small numbers of these species breed locally, raising their young in the tidal marsh. Common Snipe *Capella gallinago* is common on the coastal meadow and this area is also used by nesting dabbling ducks and moulting Green-winged Teal. On the ponds and ditches, increased numbers of Black Duck, Green-winged and Blue-winged Teal and Pintail have made use of the new habitats and Shoveler *Anas chyeata* and Wood Duck *Aix sponsa*, which did not previously breed in the area, are now present.

Noteworthy Flora: The aquatic and terrestrial vegetation of the area comprises at least 10 plant species considered rare in Quebec and Canada including *Pellea atropurpurea*, present only at one other site several hundred km to the west, and *Adlumia fungosa*, *Carex bicknellii*, *Carex platyphylla*, and *Panax quinquefolius* among others.

Current Scientific Research and Facilities: Research has been carried out on the Greater Snow Geese and its habitats at Cap Tourmente since the mid 1950s. There is a museum on-site illustrating the interactions of man the hunter and his environment and a reference library.

Current Conservation Education: The site has an extensive network of interpretive trails, boardwalks, ecological and historical displays, and a public education centre.

Current Recreation and Tourism: About 75 000 visitors come to this site every year to view the seasonal Snow Geese migration.

Management Authority:

Canadian Wildlife Service
Quebec Region
Environment Canada
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Jurisdiction: Federal - Environment Canada.

Selected Bibliography:

- Bouchard, L. 1976. Le Cap Tourmente et la chasse aux oies blanches. Fides. Montreal, Quebec. 160 p.
- Bourget, A. 1974. Migrations de la sauvagine dans la région de Québec. In Boyd, H. (editor). Waterfowl studies. Report Series, No. 29. Canadian Wildlife Service, Environment Canada. Ottawa, Ontario.
- Doran, M.-A. 1977. Étude sur la régénération de *Scirpus americanus* sur les battures de la Réserve Nationale de la Faune à Cap Tourmente. Internal report. Canadian Wildlife Service, Environment Canada. Ste-Foy, Quebec. Unpublished.

- Lemieux, L. 1959. Histoire naturelle et aménagement de la Grande Oie blanche, *Chen hyperborea atlantica*. *Naturaliste canadien* 86: 133-192.
- Lemieux, S. 1978. Les oiseaux de la Réserve nationale de faune du Cap Tourmente. *Naturaliste canadien* 105: 177-193.
- Reed, A. 1978/79. The feeding ecology of the greater snow goose on a staging haunt in the St. Lawrence estuary: a progress report. *Verh. Orn. Ges. Bayern* 23: 201-202.
- Reed, A. 1980. A greater snow goose management plan: a Canadian perspective. Internal report. Canadian Wildlife Service, Environment Canada. Ste-Foy, Quebec. Unpublished.
- Scherrer, B. 1975. Enquête sur la chasse à la Grande Oie blanche, les aspects bio-socio-économiques. Internal report. University of Quebec. Montreal, Quebec. 187 p.
- Serodes, J. 1978. Qualité des sédiments fins de l'estuaire moyen supérieur. Internal report. Inland Waters Directorate, Environment Canada. Ste-Foy, Quebec. Unpublished. 8 p.

Reasons for Ramsar Designation: The area includes one third (400 ha) of all remaining high quality *Scirpus americanus* marsh in the St. Lawrence estuary. These marshes are vital to Greater Snow Geese *Anser caerulescens atlanticus* which stage in the St. Lawrence in spring and fall. About 30% of the usage by the entire world's population of Greater Snow Geese during migration occurs at this site.

Status of Management Plan: The *Plan de gestion de la Réserve nationale de faune du cap Tourmente* for this National Wildlife Area was released in 1986.