

LAC SAINT-FRANÇOIS NATIONAL WILDLIFE AREA, QUEBEC
Information Sheet on Ramsar Wetlands

Effective Date of Information: The information provided is taken from text supplied at the time of designation to the List of Wetlands of International Importance, May 1987 updated by the Canadian Wildlife Service - Quebec Region in March 1993.

Reference: 4CA019

Name and Address of Compiler: Canadian Wildlife Service, Environment Canada, Ottawa, Ontario, Canada K1A 0H3.

Date of Ramsar Designation: 27 May 1987.

Geographical Coordinates: 45°02'N., 74°29'W.

General Location: Situated on the south bank of Lake Saint-François, in Huntingdon County, 50 km south-west of the town of Salaberry-de-Valleyfield, Quebec.

Area: 2 214 ha.

Wetland Type (Ramsar Classification System): Inland wetlands: Type 1 - permanent freshwater rivers and streams; Type 5 - permanent freshwater lakes; Type 8 - permanent freshwater ponds, marshes, and swamps; Type 11 - freshwater swamp forest.

Altitude: The mean lake level is 46 m; with moraines rising up to 51-52 m above sea level.

Overview (Principal Characteristics):

Physical Features (Geology, Geomorphology, Hydrology, Soils, Water, Climate): The lake averages 0.4-0.6 m in depth (to a maximum 3 m). The climate is influenced in part by the moderating effects of the lake and is characterised by an average annual temperature of 5.7°C, monthly average temperatures being -9.8°C in January and 19.8°C in July. Average annual precipitation is 900 mm.

Ecological Features (Habitats, Vegetation): The wildlife area comprises mostly freshwater marsh and flooded shoreline swamp. Vegetation communities are in no way related to soil types, but their distribution within the marsh is influenced by species propagation, at the level of phreatic cover, and by various disturbances, principally fire. The local climate permits the growth of numerous plants at the northern limit of their range. The area represents an assembly of diverse habitats; mature forest on elevated land, flooded woodland, peaty marsh, *Carex* or sedge marsh, flooded shrub, ponds, cedar grove, tamarack, submerged and emergent plants, and water courses. This mosaic provides habitat for an extensive flora and fauna, including species which are rare and threatened both provincially and nationally. The marshes and swamps

represent the last and finest examples of this type of wetland in the St. Lawrence Valley (Quebec). Vegetation succession from wet to dry land can be observed here. The area represents the last remaining wild land of this type in the highly industrial Montreal region.

In the freshwater ponds, streams, river and lake, floating and submerged plants dominate, such as reed grasses *Potamogeton* spp., wild celery *Vallisneria americana*, water lilies *Nuphar* and *Nymphaea* spp. Arrowheads *Sagittaria* spp., pickerelweed/arrow arm *Pontederia cordate* and threesquare *Scirpus fluviatilis* grow in shallow water. In the marshes (690 ha) are found principally cattails *Typha* spp., aquatic sedge *Carex aquatilis* and lake sedge *Carex lacustris*. Flooded woodlands (540 ha) are dominated by red maple *Acer rubrum*, willows *Salix* spp. and wrinkled alder *Alnus rugosa*, as well as larch *Larix laricina*. Dry uplands are partially covered by sugar maple *Acer saccharum*, *Carya cordiformis* and various forest groups in different stages of evolution. Several clearings and fallow fields are evident.

Land Tenure:

(a) Site: The area is partially federal Crown land (1 347 ha) owned by the Canadian Wildlife Service; the remaining 867 ha of open navigable waterway is undeeded but under federal jurisdiction.

(b) Surrounding Area: Mainly private lands and Indian Reserve lands.

Conservation Measures Taken: The area was designated as a National Wildlife Area on 27 April 1978 under the National Wildlife Area Regulations and the *Canada Wildlife Act* of 1973.

Conservation Measures Proposed: None currently.

Current Land Use/Activities in:

(a) Site: Only activities compatible with national wildlife area objectives are permitted. All other land use is rigorously controlled. Important improvements have increased the area of free water in marshes and their use by waterfowl during migration and the nesting season. Access by the public is limited but wildlife observation is permitted.

(b) Surrounding Area: Mainly agricultural land uses.

Threats to Integrity of:

(a) Site: Fertilizers and herbicides carried from agricultural land through the drainage network could affect the water quality. Little is known of the impact on flora and fauna from acid precipitation; the mean annual pH for this region is 4.2. Once a common practice, the burning of dry grass in the swamps in the springtime, is no longer permitted.

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

Hydrological/Physical Values:

Social/Cultural Values: The surrounding area was colonized in the early 1800s by United Empire Loyalists who came from the United States and by Irish and Scottish settlers.

Noteworthy Fauna: Twelve species of ducks breed here including Redhead *Aythya americana* and Gadwall *Anas strepera*. Canada Goose *Branta canadensis* has only recently begun breeding at the site, one of the rare nesting sites in southern Canada. Thousands of dabbling and diving ducks use the surface waters and lake during migration. Up to 7 000 dabbling ducks have been recorded, the highest number in spring along the entire St. Lawrence system, as well as up to 25 000 Scaup *Aythya* spp. Numerous raptors fly over the area in autumn and spring, the river banks creating a migratory corridor. In spring the lake hosts 70 000 ducks and geese and the same number in autumn, but with a higher percentage of Scaup. Habitat diversity produces a wide range of bird species; the list for the area and the immediate surrounding region comprises more than 270 bird species, or 69% of all species recorded in Quebec. Of this number, 220 have been observed in the national wildlife area itself and 110 nest, such as the uncommon Least Bittern *Ixobrychus exilis*, Yellow Rail *Coturnicops noveboracensis*, Red-headed Woodpecker *Melanerpes erythrocephalus*, Pileated Woodpecker *Dryoscopus pileatus*, Yellow-bellied Flycatcher *Empidonax traillii*, and the largest population in Quebec (and probably in Canada) of Short-billed Wren *Cistothorus platensis*. Large Egret *Casmerodius albus* from a neighbouring colony feed in swamps in the area.

Among reptiles and amphibians, three species of snake have been observed, notably water snake *Nerodia sipedon*, three species of tortoise, including the rare geographical tortoise *Graptemys geographica*, and numerous freshwater turtles including common snapping turtle *Chelydra serpentina*. At least 12 species of amphibians have been recorded. More than 30 terrestrial mammals use the area and several breed, including white-tailed deer *Odocoileus virginianus* and a large population of eastern cottontail rabbit *Sylvilagus floridanus*. There are more than 75 species of fish in the lake and its tributaries, and several of them use the ponds and water courses of the wildlife area at specific times during their life cycles.

Noteworthy Flora: The aquatic and terrestrial vegetation of the area comprises more than 40 plants considered rare in Quebec and in Canada, such as great swallow-wort *Asclepias exaltata*, which is present at one other site only in Quebec (Mt. Saint-Hilaire), watermilfoil *Myriophyllum heterophyllum* (known from only two other sites near Montreal), *Wolffia borealis* and *Wolffia columbiana* (known only from the upper basin of the River Richelieu), as well as numerous *Rhus vernix*, *Cornus racemosa*, *Crataegus braineadii*, *Ranunculus longirostris*, *Panax quinquefolius*, and *Viola rostrata* among others.

Current Scientific Research and Facilities: Numerous studies have been undertaken by the Canadian Wildlife Service, by independent groups working on government programs, and by scientists concerned with the biotic and abiotic aspects of the area.

Current Conservation Education:

Current Recreation and Tourism: Visitor kiosk, viewing tower, and trails on site.

Management Authority:

Canadian Wildlife Service
Quebec Region
Environment Canada
C.P. 10 100
Ste-Foy, Quebec
G1V 4H5

Jurisdiction: Federal - Environment Canada.

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Francis. M.Sc. thesis, York University. North York, Ontario. Unpublished.

Reasons for Ramsar Designation: The area is important for its population of Redhead *Aythya americana*, the largest and most important in Quebec, as well as for the variety of other ducks nesting here. The area represents the last remaining wild land of this type in the highly industrial Montreal region. The area has a very high diversity of habitats and bird species in the marshes and swamps.

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