

CANADA 30: MALPEQUE BAY, PRINCE EDWARD ISLAND

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, April 1988 updated by the Canadian Wildlife Service - Atlantic Region in October 2001.

Reference: 30th Ramsar site designated in Canada.

Name and Address of Compiler: Canadian Wildlife Service, Environment Canada, P.O. Box 6227, 17 Waterfowl Lane, Sackville, N.B., E4L 1G6.

Date of Ramsar Designation: 28 April 1988.

Geographical Coordinates: 46°32'N., 63°48'W.

General Location: The Bay is situated on the north coast of Prince Edward Island, 10 km north of the Town of Summerside, in Prince County.

Area: 24 400 ha.

Wetland Type (Ramsar Classification System): *Marine and coastal wetlands:* Type A - marine waters; Type D - rocky marine shores and offshore islands; Type E - sand, shingle, or pebble beaches; Type F - estuarine waters; Type G - intertidal mud, sand, or salt flats; Type H - intertidal marshes.

Altitude: Range is from sea level to 8 m.

Overview (Principal Characteristics): The area comprises 700 ha of salt marsh, 7 600 ha of shallow estuarine water and flats, 80 ha of saline ponds, 640 ha of sand dunes, 260 ha of sand beach, 2 200 ha of islands and 12 960 ha of open water.

Physical Features (Geology, Geomorphology, Hydrology, Soils, Water, Climate): Malpeque Bay is a coastal lagoon system protected from the open sea (Gulf of St. Lawrence) by a 25 km-long coastal sandspit and dune formation. A one km-wide channel at the eastern tip of the sandspit provides for the main exchange of tidal waters between the bay and open ocean. Some 23 small rivers and creeks contribute fresh water to this wetland, thus producing principally an estuarine regime. Numerous small salt marshes (average size 5 ha) are scattered along the coastline which is characterised by a band of intertidal sand-mud that varies in width from 0.5 m to 1 000 m.

Ecological Features (Habitats, Vegetation): The majority of the bay is shallow (average depth 4 m, maximum 13 m) with numerous shoals. These shallow, productive, coastal waters account for 31% of the site area, and eel grass (*Zostera marina*) dominates half (3 800 ha) of this area. The 25 km protecting sandspit has wide sand beaches (260 ha) and several small saline ponds. Areas of overwash occur at intervals, but an extensive dune system vegetated with marram grass (*Ammophila breviligulata*) dominates. The bay contains nine islands, five wooded and four covered with grasses and shrubs.

Land Tenure:

(a) Site: As the site is primarily open water and intertidal flats, a large area is undeeded. The coastal sandspit is provincial Crown land and a large portion is owned by the Lennox Island Indian Reserve, while the islands and salt marshes are mostly privately owned. A portion (97 ha) of Courtin Island (Bunbury Island) is owned by the Island Nature Trust. Two provincial parks are present in the area: Green Park (87 ha) and Cabot Park (58 ha). During the 1989 to 1992 period, an additional 60 ha of salt marsh on the eastern side of the bay were acquired under the Eastern Habitat Joint Venture of the North American Waterfowl Management Plan.

(b) Surrounding Area: Mostly private and municipal lands.

Conservation Measures Taken: The *Prince Edward Island Environmental Protection Act* provides specific protection to all wetlands in the province. Two provincial parks are protected habitat within this Ramsar site and the Indian River Wildlife Management Area (316 ha) is a provincially-designated waterfowl management site. Courtin Island (Bunbury Island) has been designated as a provincial natural area.

Conservation Measures Proposed: The Beach Point salt marsh acquired under the Eastern Habitat Joint Venture of the North American Waterfowl Management Plan will be designated a provincial Wildlife Management Area and additional key salt marshes will likely be secured. A number of marshes are being considered for Natural Area designation along with four of the islands within the bay.

Current Land Use/Activities in:

(a) Site: There are no specific management practices being carried out within the site.

(b) Surrounding Area: Farms, open fields and small woodlots with cottage developments are common along coastal points.

Threats to Integrity of:

(a) Site: There are few known threats to this area. However, further development of the upland fringe and increased shellfish farming could alter patterns of waterfowl use of the site.

(b) Surrounding Area: There are no apparent threats to the surrounding areas at this time; however, concerns have been raised about the potential for peat harvesting on adjacent lands.

Hydrological/Physical Values: This shallow, productive bay is an important nursery area for finfish and shellfish.

Social/Cultural Values: The Bay is internationally famous for the Malpeque Bay Oyster and locally for soft-shelled clams.

Noteworthy Fauna: Wildlife use of the area is considerable. Peak numbers of Canada Geese *Branta canadensis* reach 14 000 in spring and nearly 20 000 during autumn. Of particular importance to these geese are the eel grass flats and intertidal areas near Courtin Island (Bunbury Island), at the mouth of Indian River and in Darnley Basin. Up to 3 000 Red-breasted Merganser *Mergus serrator*, 1 200 Greater Scaup *Athya marila*, 1 500 Black Duck *Anas rubripes* and 750 Green-winged Teal *Anas crecca carolinensis* can be observed in the peak autumn periods. Smaller numbers of Pintail *Anas acuta*, Goldeneye *Bucephala clangula* and Scoter also occur. Shorebirds are abundant about the Bay from mid-July to early autumn, and several pairs of nesting Piping Plover *Charadrius melodus* occur at overwash sites on the outer beach. Some of the islands are colonial nesting sites for seabirds, and Courtin Island is the largest Great Blue Heron *Ardea herodias* colony with 300 birds in the Province.

Noteworthy Flora:

Current Scientific Research and Facilities: No major studies of migratory birds have been carried out at the site. Waterfowl use has been documented by aerial surveys conducted by Environment Canada and the Prince Edward Island Department of Fisheries, Aquaculture and Environment.

Current Conservation Education: Signage noting the importance of the Ramsar site is located at Cabot Provincial Park.

Current Recreation and Tourism: The Ramsar site is not promoted as a separate destination. However, the entire bay area is a recreational site with summer activities focused at the two provincial parks.

Management Authority:

Fish and Wildlife Division
Prince Edward Island Department of Fisheries, Aquaculture and Environment
P.O. Box 2000
Charlottetown, Prince Edward Island
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Jurisdiction: Partially Provincial - Prince Edward Island Department of Fisheries, Aquaculture and Environment. Partially Private.

Selected Bibliography:

Reasons for Ramsar Designation: The area has very high levels of waterfowl use during spring and fall migration periods.

Status of Management Plan: A management plan for the overall Ramsar site is proposed. Some of this area is managed through habitat projects under the North American Waterfowl Management Plan.