

CANADA 3: MARY'S POINT, NEW BRUNSWICK

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 and updated by the Canadian Wildlife Service - Atlantic Region in October 2001.

Reference: Canada, 3rd Ramsar site designated.

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

Date of Ramsar Designation: 24 May 1982.

Geographical Coordinates: 45°44'N., 64°45'W.

General Location: Situated at the head of the Bay of Fundy, 40 km south of the City of Moncton, Westmorland County, New Brunswick.

Area: 1 200 ha.

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

Altitude: Range is from -2 m to 10 m above sea level.

Overview (Principal Characteristics): The area encompasses a large tidal *Spartina* marsh, wide expanses of intertidal mudflats and a peninsula protruding into Shepody Bay that contains a 2-km sand and gravel beach, sand dunes, and forested uplands with rocky cliffs and intertidal ledges.

Physical Features (Geology, Geomorphology, Hydrology, Soils, Water, Climate): The peninsula was formed from glacial outwash gravel overlying sandstone bedrock and consists of two forested 'islands' joined by salt marsh, rock cliffs and intertidal ledges, gravel beaches and a small ridge of sand dunes. The extensive intertidal mudflats are over 1.5 km wide in places and occur to the north and south of the Point. They consist of fine marine silts built up over time through deposition from muddy tidal waters in a microtidal environment with a range up to 13 m.

Ecological Features (Habitats, Vegetation): The most prominent ecological feature is the extensive mudflat that supports marine algae and abundant invertebrates. The headland at Mary's Point is forested principally with spruce *Picea* sp., fir *Abies* sp. and scattered hardwoods. The extensive salt marsh is dominated by salt marsh cordgrass *Spartina alterniflora*, and *Spartina patens*.

Land Tenure:

(a) Site: The Government of Canada owns 107 ha which includes the most critical sites used by the large roosting flocks of shorebirds during high tide. Most of the

150 ha of salt marsh remains under private ownership as poor land titles have prevented purchase by the federal government. The remaining 940 ha (approximately) of intertidal mudflats are undeeded but under the jurisdiction of the Province of New Brunswick.

(b) Surrounding Area: The site is bounded on three sides by waters of the Bay of Fundy. Uplands immediately adjacent to the site on the western side are privately owned. The most critical adjacent parcels next to the end of the beach are owned by conservationists.

Conservation Measures Taken: The 107 ha owned by the federal government have been declared a unit of the Shepody National Wildlife Area, and is scheduled under and controlled by the National Wildlife Area Regulations under the *Canada Wildlife Act*. On August 7, 1987 all of Mary's Point and the adjacent Shepody Bay were declared a Hemispheric Shorebird Reserve under the Western Hemisphere Shorebird Reserve Network.

Conservation Measures Proposed: Further securement of the salt marshes and improved regulation and control of human use of the beach at high tide is needed.

Current Land Use/Activities in:

(a) Site: A 20 ha controlled waterfowl impoundment was constructed by Ducks Unlimited Canada in 1979 at a site adjacent to the salt marsh. Future management of the impoundment may involve vegetation control via tidal flooding and possible maintenance of slightly brackish conditions within the impoundment. The portion of the site presently designated as a National Wildlife Area is posted with identification signs and there is an observation deck overlooking the beach. Naturalists are employed seasonally through the cooperation of the New Brunswick Federation of Naturalists to advise visitors on the biological values of the area and its sensitivity. An interpretation centre at Mary's Point is open to the public between July 1 and August 31 each year. Exhibits focus on shorebird biology and migration as well as the natural and human history of the area.

(b) Surrounding Area: Private dwellings, woodlots and open fields.

Threats to Integrity of:

(a) Site: The possibility of a major alteration at the site due to the installation of a tidal barrage for power generation remains a potential threat. The Mary's Point area is considered the least economic of the three prime sites that were studied in the early 1970s for tidal power installation in the Bay of Fundy. Recreational use of all-terrain vehicles along the beach occasionally causes disturbance to the roosting flocks and the number of visitors needs to be regulated to keep disturbance to a minimum.

(b) Surrounding Area: There is little change expected in rural land use of the surrounding private lands. Increasing use of the Mary's Point site by naturalists may lead to development of private, tourism-associated projects but these are not likely to impact the integrity of the site. Recently, there has been a renewed interest in the high quality building stone that was once quarried at Mary's Point. Much of this

stone was once extracted from along the shore. Thus, any such work could seriously impact on the shorebirds that use this area to rest and feed during migration.

Hydrological/Physical Values: The site is a prominent headland and very scenic coastal landscape.

Social/Cultural Values: The site has a rich history including once being the heart of a major stone quarrying industry in the 1800s.

Noteworthy Fauna: The intertidal mudflats support *Corophium volutator*, an amphipod which in North America occurs only in the Bay of Fundy in recorded densities exceeding 60 000 per square metre which are the highest densities in the world. It is the principal forage species of shorebirds. Over two million Semi-palmated Sandpiper *Calidris pusilla*, thousands of Least Sandpiper *Calidris minutilla*, Short-billed Dowitcher *Limnodromus griseus*, White-rumped Sandpiper *Calidris fuscicollis*, Semi-palmated Plover *Charadrius semipalmatus*, Black-bellied Plover *Pluvialis squatarola* and Red Knot *Calidris canutus* feed and roost at the site from late July to September. Small numbers of Black Duck *Anas rubripes*, Blue-winged Teal *Anas discors* and Ring-necked Duck *Aythya collaris* breed in a 20 ha freshwater impoundment adjacent to the 150 ha salt marsh.

Noteworthy Flora:

Current Scientific Research and Facilities: Research activities have been aimed at understanding the upper Bay of Fundy in general. In particular, shorebird research programmes conducted from 1974-1981 documented the feeding ecology of the birds and illustrated the importance of the Mary's Point site for feeding and roosting. At present (1998), research activities are directed towards long-term monitoring of shorebird numbers and food supply.

Current Conservation Education: A small visitor centre and display area was constructed at the site in 1992 and seasonal naturalists provided by the New Brunswick Federation of Naturalists offer interpretive services during July and August.

Current Recreation and Tourism: Observation deck, seasonal interpretation centre, signage, and a trail are on site. About 15 000 visitors use the site each summer.

Management Authority:

Canadian Wildlife Service
Environment Canada
P.O. Box 6227, 17 Waterfowl Lane,
Sackville, New Brunswick
E4L 1G6

Jurisdiction: Federal - Environment Canada; Provincial - New Brunswick Department of Natural Resources and Energy.

Selected Bibliography:

- Harrington, B.A. and R.I.G. Morrison. 1979. Semi-palmated sandpiper migration in North America. *Studies in Avian Biology* 2: 83-100. Cooper Ornithological Society, Los Angeles, California.
- Hicklin, P.W. 1987. The migration of shorebirds in the Bay of Fundy. *Wilson Bulletin* 99(4): 540-570.
- Majka, M. 1978. Wings over Fundy. *Nature Canada* 7(3).
- Morrison, R.I.G. 1974 to 1978. *Annual reports of the Maritime Shorebird Survey*. Canadian Wildlife Service, Environment Canada. Ottawa, Ontario.
- Morrison, R.I.G. 1976. Use of the Bay of Fundy by shorebirds. In Daborn, G.R. (editor). *Proceedings, Workshop of Fundy Tidal Power and the Environment*. Acadia University, Wolfville, Nova Scotia.

Reasons for Ramsar Designation: The wetland supports the largest numbers of mixed species of shoreline birds during fall migration in all of North America.

Status of Management Plan: The portion of this Ramsar site within Shepody National Wildlife Area is managed under the *Shepody National Wildlife Area Management Plan* which was released in August 1984.