

***SOUTHERN BIGHT - MINAS BASIN, NOVA SCOTIA***  
***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, November 1987 updated by the Canadian Wildlife Service - Atlantic Region in February 1993.

**Reference:** 4CA029

**Name and Address of Compiler:** Environmental Conservation Branch, Environment Canada, P.O. Box 1590, Sackville, N.B. E0A 3C0.

**Date of Ramsar Designation:** 5 November 1987.

**Geographical Coordinates:** 45°13'N., 64°16'W.

**General Location:** The wetland is in the southern extension of Minas Basin and immediately north of the Town of Wolfville, Nova Scotia.

**Area:** 26 800 ha.

**Wetland Type (Ramsar Classification System):** *Marine and coastal wetlands:* Type 1 - marine waters; Type 4 - rocky marine shores and offshore islands; Type 5 - sand, shingle, or pebble beaches; Type 6 - estuarine waters; Type 7 - intertidal mud, sand, or salt flats; Type 8 - intertidal marshes.

**Altitude:** Ranges from 0 m to 20 m above mean sea level.

**Overview (Principal Characteristics):** The basin is a wide, open bay into which flows one major and several smaller river systems. The surrounding coast is low, rolling upland with salt marshes prevalent. One small island (Boot Island) occurs within the site.

**Physical Features (Geology, Geomorphology, Hydrology, Soils, Water, Climate):** The site is subject to macro-tidal fluctuations (range of 14 m) as it is associated with the Bay of Fundy. Extensive tidal flats occur along all sections of the coast and in places extend over 5 km into the basin at low tide. The flats consist of fine marine silts that have been deposited by the silt-laden tidal waters.

**Ecological Features (Habitats, Vegetation):** Extensive tidal flats and their associated invertebrate fauna support extremely large numbers of migrant shorebirds. Minas Basin and the Mary's Point - Shepody Bay Ramsar sites are highly critical habitats and support very high densities of the mud-dwelling marine amphipod *Corophium volutator*, the principal prey species for shorebirds. The site comprises 100 ha of upland (Boot Island National Wildlife Area; 1 400 ha of salt marsh; 7 800 ha of mud-sand flats; 100 ha of beach; and 15 700 ha of open water.

**Land Tenure:**

**(a) Site:** The majority of the site is inter- or sub-tidal and is thus undeeded. Boot Island (144 ha) is owned by the Government of Canada. Much of the salt marsh area is privately owned.

**(b) Surrounding Area:** Mostly privately-owned farms and cottages.

**Conservation Measures Taken:** The only portion of the site that has protected status is Boot Island (144 ha). It is a national wildlife area and activities are controlled by the Wildlife Area Regulations under the *Canada Wildlife Act* of 1973. In 1988, Minas Basin (Southern Bight) was added to Mary's Bay and Shepody Bay, all located in the upper Fundy region, collectively to form the Bay of Fundy Hemisphere Shorebird Reserve under the Western Hemisphere Shorebird Reserve Network.

**Conservation Measures Proposed:** A draft management plan for this area calls for declaration of the site as a wildlife habitat area, designation of specific beaches, securement of key habitat areas and, possibly, regulation of the bait worm industry.

**Current Land Use/Activities in:**

**(a) Site:** Little activity takes place that seriously impacts on the birds or their habitat. However, there is growing concern over the possible long-term effects of an annual bait worm harvest that is exported to the United States salt water sports fishery. Some recreational activity causes disturbance to roosting flocks on Evangeline Beach.

**(b) Surrounding Area:** Farms, cottages and rural homes.

**Threats to Integrity of:**

**(a) Site:** Unregulated harvesting of polychaetes for the commercial bait industry is causing local concern. The development of a Fundy Tidal Power barrage at Cobequid Bay would cause tidal changes at this site and possible alteration to siltation patterns.

**(b) Surrounding Area:** Housing and cottage developments may subject the site to additional recreational pressure.

**Hydrological/Physical Values:** The embayment is a spectacular macro-tidal environment.

**Social/Cultural Values:** Evangeline Beach is a popular summer vacation area. A small fishery for flounder occurs in the Bay.

**Noteworthy Fauna:** At peak times, Minas Basin supports flocks of over 400 000 Semi-palmated Sandpiper *Calidris pusilla*, along with thousands of Semi-palmated Plover *Charadrius simipalmatus*, Black-bellied Plover *Pluvialis squatarola*, Short-billed Dowitcher *Limnodromus griseus* and up to 10 000 Least Sandpiper *Calidris minutilla*. Several pairs of Eastern Willet

*Catoptrophorus semipalmatus* breed on the salt marshes and Great Blue Heron *Ardea herodias*, Double-crested Cormorant *Phalacrocorax auritus* and gulls nest on Boot Island. Sizeable numbers of waterfowl (Canada Goose *Branta canadensis*, Black Duck *Anas rubripes*, Green-winged Teal *Anas crecca carolinensis*) use the salt marsh and associated wetlands during spring and fall.

### **Noteworthy Flora:**

**Current Scientific Research and Facilities:** Due to the close proximity of this site to Acadia University at Wolfville, Nova Scotia, shorebird distribution and feeding ecology have been extensively studied. Boot Island National Wildlife Area is surveyed every second year but no activity other than research occurs on that site.

**Current Conservation Education:** A sign identifying the significance of the site is located at Evangeline Beach.

**Current Recreation and Tourism:** Visitor facilities are available in the nearby Evangeline Beach Provincial Park.

**Management Authority:** Boot Island is administered by the:

Canadian Wildlife Service  
Environmental Conservation Branch  
Atlantic Region  
Environment Canada  
Box 1590  
Sackville, New Brunswick  
E0A 3C0

**Jurisdiction:** Federal - Environment Canada; Provincial - Nova Scotia Department of Natural Resources.

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**Reasons for Ramsar Designation:** The site supports the largest numbers of mixed species of shoreline birds during fall migration in all of North America. Minas Basin is a critical component of the Bay of Fundy Hemisphere Shorebird Reserve under the Western Hemisphere Shorebird Reserve Network which also includes the Mary's Point and Shepody Bay Ramsar sites.

**Status of Management Plan:** The *Southern Bight - Minas Basin Management Plan* for the site has been drafted by the province and the Canadian Wildlife Service. It calls for a number of specific actions.