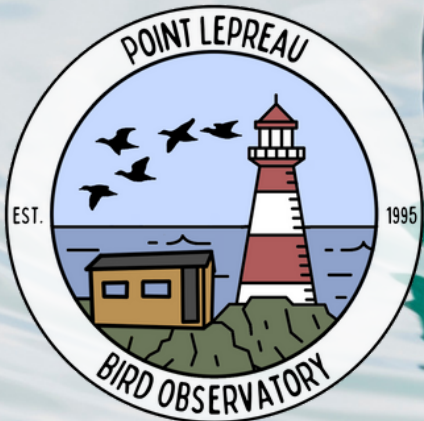


Point Lepreau Bird Observatory

EST. 1995

A Project of the Saint John Naturalists Club





Welcome to the Point Lepreau Bird Observatory

About PLBO

The Point Lepreau Bird Observatory (PLBO) was established by the Saint John Naturalists' Club in 1995 to monitor seabird migration through the Bay of Fundy which separates the eastern Canadian provinces of New Brunswick and Nova Scotia.

Strategically situated on the North American Atlantic Flyway at N 45° 03' 490', W 66° 27' 525' near the mouth of the Bay, the observatory is at the tip of Point Lepreau which juts out three kilometers and represents the most prominent point of land on the New Brunswick coast of the Bay. The mouth of the Bay of Fundy acts as a gigantic funnel for birds following the North Atlantic coastline during northward migration. It is quite possible the majority of seabirds wintering south of the Bay of Fundy pass within a short distance of Point Lepreau in spring on their way to more northern nesting areas.

Once the birds enter the Bay they fly northeast toward its head and there make their first overland crossing in as much as six months before continuing up the east coast of New Brunswick and beyond.

In fall the birds return to the Atlantic Coast from scattered locations in the North, resulting in little concentration in the Bay of Fundy.

Seabird counts have been conducted annually in spring and fall since 1996 with the bulk of bird traffic observed during the month of April. The most abundant species are Black Scoter (*Melanitta americana*) and Surf Scoter (*Melanitta perspicillata*) with Black outnumbering Surf by approximately two to one.

**MORE THAN 1.6 MILLION SEABIRDS HAVE BEEN
RECORDED SINCE OPERATIONS BEGAN**



**DURING SPRING MIGRATION MORE
THAN 8,000 BIRDS PER HOUR
HAVE BEEN COUNTED.**



Migration data are collected daily using a sampling method over four-hour observation periods with protocols adapted from Hussell and Ralph (1998). Since the year 2000, counts in spring have been under the supervision of an Official Observer, assisted by up to three volunteers. Fall monitoring is done entirely by volunteers. Observations are conducted from the observatory building from mid-March to mid-May and from mid-September to mid-November.

Principal Species

Specific focus is on nine Principal Species that include:

- Black Scoter (*Melanitta americana*)
- Surf Scoter (*Melanitta perspicillata*)
- Common Eider (*Somateria mollissima dresseri*)
- Double-crested Cormorant (*Phalacrocorax auritus*)
- Long-tailed Duck (*Clangula hyemalis*)
- White-winged Scoter (*Melanitta fusca*)
- Red-throated Loon (*Gavia stellata*)
- Common Loon (*Gavia immer*)
- Great Cormorant (*Phalacrocorax carbo*)

Collectively these species represent approximately 95% of total birds counted.

THE MOST ABUNDANT SPECIES ARE BLACK SCOTER (45%), SURF SCOTER (23%) & COMMON EIDER (19%)



BLACK SCOTER

Seabirds in lesser numbers include:

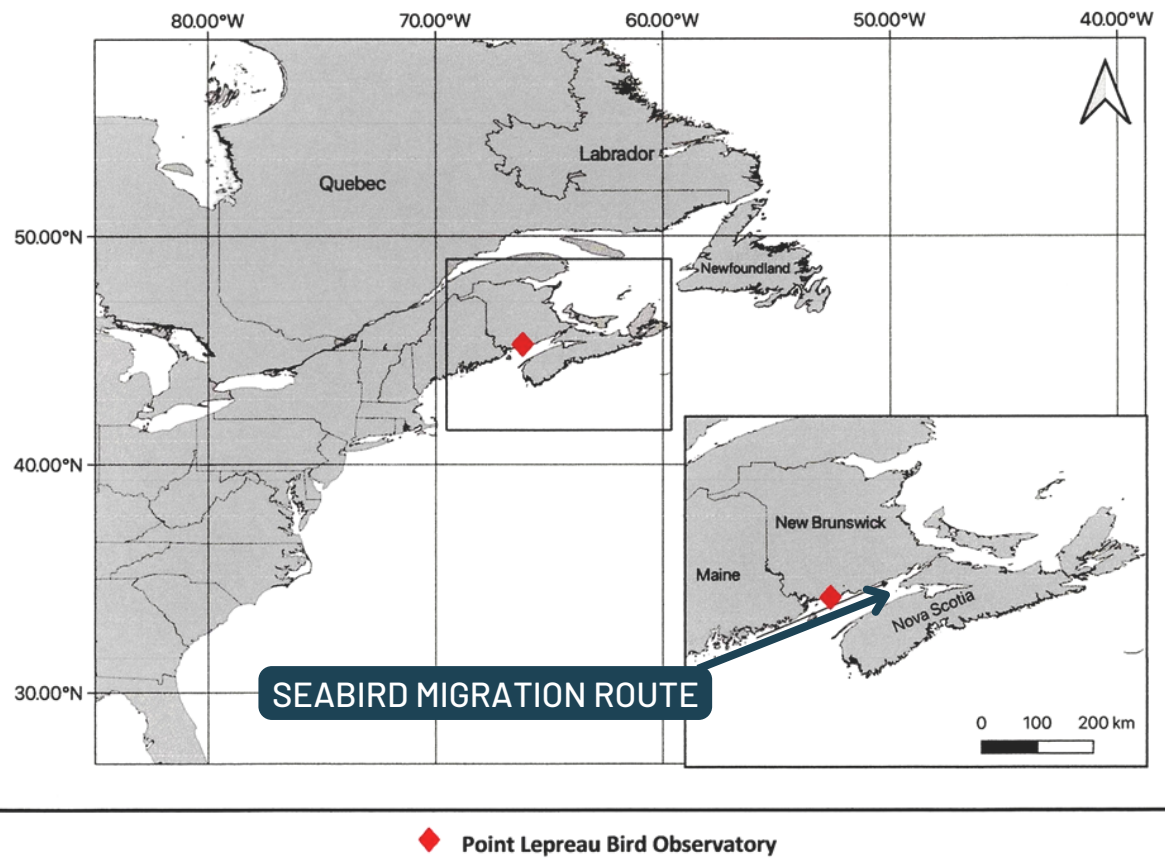
- | | |
|---|--|
| • Canada Goose (<i>Branta canadensis</i>) | • Pomarine Jaeger (<i>Stercorairus pomarinus</i>) |
| • Brant (<i>Branta bernicia</i>) | • Parasitic Jaeger (<i>Stercorairus parasiticus</i>) |
| • King Eider (<i>Somateria spectabilis</i>) | • Razorbill (<i>Alca torda</i>) |
| • Harlequin (<i>Histrionicus histrionicus</i>) | • Common Murre (<i>Uria aalge</i>) |
| • Red-breasted Merganser (<i>Mergus serrator</i>) | • Black Guillemot (<i>Cepphus grylle</i>) |
| • Horned Grebe (<i>Podiceps auritus</i>) | • Black-legged Kittiwake (<i>Rissa tridactyla</i>) |
| • Red-necked Grebe (<i>Podiceps grisegena</i>) | • Northern Gannet (<i>Morus bassanus</i>) |



Annual data are shared with Environment Canada's Canadian Wildlife Service which has partnered with the project since its inception.

Other partners include Fisheries and Oceans Canada, NB Power, Ducks Unlimited Canada, Birds Canada and NB Wildlife Trust Fund.

AN EXCEPTIONAL GEOGRAPHIC LOCATION FOR EVALUATING SEABIRDS



THE POINT LEPREAU BIRD OBSERVATORY HAS COLLECTED SEABIRD DATA ANNUALLY FOR MORE THAN A QUARTER CENTURY (1996-PRESENT)

Adjacent Maces Bay and Point Lepreau were designated an internationally recognized Important Bird Area in 2001 to highlight their significance as a major migratory staging area and a strategic migratory observation site.

Monitoring seabird migration from geographically strategic sites over extended timeframes is an extremely cost-effective means of obtaining accurate information on migrations of bird species that travel near coastlines. Many of these species are difficult if not impossible to accurately census using other sampling methods.

Publications based on PLBO data include:

- BOND, A.L. 2005. Chronology of spring migration of the three scoter species in the Bay of Fundy. B. S. Honours, Mount Allison University, Sackville, NB, Canada.
- BOND, A.L., HICKLIN, P.W. AND EVANS, M.R. 2007. Daytime spring migrations of scoters (*Melanitta* spp.) in the Bay of Fundy. *Waterbirds* 30: 566-572.
- BOND, A.L., HICKLIN, P.W., AND EVANS, M.R. 2009. Erratum. *Waterbirds* 32: 197.
- BUTTON, J. D. 2015. Aquatic bird migration through the Bay of Fundy. B. S. Honours, University of New Brunswick, Saint John, NB, Canada.
- CAMERON, I. R. 2014. An analysis of spring migration rates of scoter species and Common Eider recorded at the Point Lepreau Bird Observatory on the Bay of Fundy over the period 2000 to 2012. *NB Naturalist* 41: 94-99.
- KELLEY, J.D. 2019. Spring migration of scoter and loon species in the Bay of Fundy: quantifying environmental influences, estimating afternoon migration, and analyzing trends between 2000-2017. M. S. thesis, University of New Brunswick, Saint John, NB, Canada.
- KELLEY, J.D. AND MAJOR, H.L. 2020. Modeling spring migration patterns of scoters and loons in the Bay of Fundy. *Journal of Field Ornithology*. 0(0):1-15, 2020.
- WILSON, J.G. AND CAMERON, I.R. 2006. Trends in spring migration rates of scoters, eiders and loons at the Point Lepreau Bird Observatory over the period 1996-2005. *NB Naturalist* 33 (2):35-40.