

Key Site 57: Western–Southwestern Anticosti Island, Quebec

Location: 49°41'40"N, 64°3'51"W

Size: 630 km²

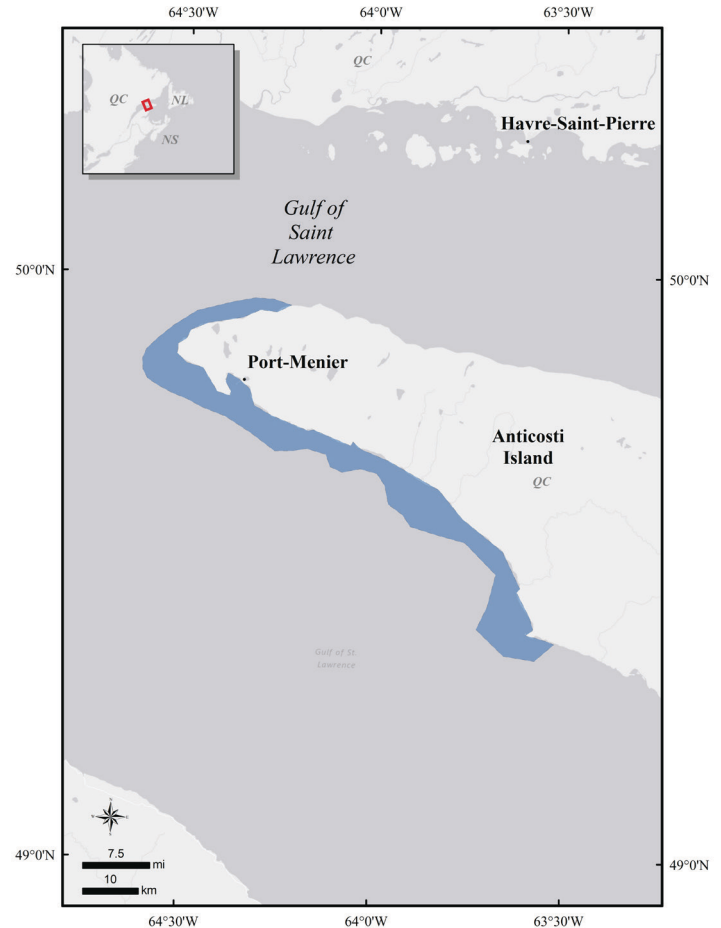
Description: Anticosti Island is a 222-km-long island situated at the intersection of the St. Lawrence Estuary and the Gulf of St. Lawrence where it empties in the Atlantic Ocean. The key site consists of waters adjacent to the west and south coasts of the island, from Cap-de-Rabast north to Sud-Ouest Point, a coastal stretch approximately 130 km long by 5 km wide. Anticosti Island has an overall low topography, and the south side presents very gradually sloped underwater limestone plateaus. Several large but shallow rivers (e.g., Jupiter, à la Loutre, Sainte-Marie, Bec-Scie, aux Canards) along the south side of Anticosti empty into the gulf. Anticosti Island has only one village, Port-Menier, with about 250 inhabitants.

Coastal waters generally freeze in winter, but a few areas remain ice-free at both ends of the island where currents and winds usually prevent icing. Large stretches along the south shore also remain ice-free some years, depending on winter severity.

Precision and Correction of Abundance

Estimates Presented: Visual estimates of scoters and eiders from spring and molting surveys have been photo-corrected (Rail and Savard 2003, Bolduc and Savard 2011). Numbers of birds from the Common Eider winter survey have also been photo-corrected, unless stated otherwise. Otherwise, abundance estimates presented for this key habitat site have not been adjusted to account for incomplete detection or other biases. Thus, they should be treated as minimum estimates.

Biological Value: This key site is particularly important to sea ducks during the molting and wintering periods. Large contingents of male Common Eiders (*Somateria mollissima dresseri*) spend the molting period at the edge of the extensive underwater plateaus of Anticosti Island; 35,000 and 25,000 Common Eiders were estimated in the key site from surveys conducted in 1998 and 2010, respectively (Rail and Savard 2003, Bolduc and Savard 2011). Use of the key site during winter varies within and among years depending on the



extent of sea ice cover. Winter surveys conducted in this area by the Canadian Wildlife Service produced estimates ranging from 4505 individuals in 2018 to 29,044 individuals in 2012. Over six years of winter survey data (2003, 2006, 2009, 2012, 2015, and 2018), an average of 12,216 individuals were estimated in this area (Canadian Wildlife Service Waterfowl Committee 2020).

Female Common Eiders molt in the key site. Ground and boat surveys in the key area in July and August 2005 found 3000 molting Red-breasted Mergansers (*Mergus serrator*; Lepage 2013), 2000 molting Surf Scoters (*Melanitta perspicillata*; Lepage and Savard 2013), and 150 molting Harlequin Ducks (*Histrionicus histrionicus*, a species of special concern in eastern Canada; Lepage et al. 2015).

Northern Common Eiders (*S. m. borealis*) are present from early December to late May (Mosbech et al. 2006). Also present during this period are a few hundred Long-tailed Ducks (*Clangula hyemalis*), Red-breasted Mergansers, and Common and Barrow's

goldeneyes (*Bucephala clangula* and *B. islandica*). A few King Eiders (*Somateria spectabilis*) can usually be observed mixed in with Common Eider flocks (Canadian Wildlife Service unpublished data).

Aerial surveys conducted during spring 2004 to 2010 reported only about 200 Common and Red-breasted mergansers in the key site (Canadian Wildlife Service unpublished data). In fall, molting *S. m. dresseri* can stage at this site from late October to early November before migrating to more southerly wintering grounds along the Atlantic coast. This site is also used as a fall staging stopover by *S. m. borealis*.

Sensitivities: Common Eiders feed almost exclusively on blue mussels (*Mytilus edulis*) during molt and winter, and the potential decline of this food resource could have major consequences. For instance, a mussel decrease of more than 60% in the Gulf of Maine has been attributed in part to increasing sea surface temperature (Sorte et al. 2017).

Potential Conflicts: Although Anticosti Island does not have any major ports, thousands of ships and barges pass by yearly. The St. Lawrence Seaway is one of the busiest waterways in North America, therefore, there is a risk of oil spills, disturbance, and bird collisions in this key site. This risk may increase given the intention of the Quebec government to increase maritime traffic in the St. Lawrence Seaway (MTQQ 2021). Given the large numbers of molting and wintering sea ducks using this key site, any gill net fisheries could result in significant by-catch casualties.

Status: There are four Aquatic Birds Concentration Areas, a provincial designation, giving a certain level of protection to about 60% of the coastline of this key site (MELCC 2021).

Literature Cited

Bolduc, F., and J.-P. L. Savard. 2011. Consistency in the distribution of molting scoters and Common Eiders in the estuary and Gulf of St. Lawrence in 1998 and 2010. Fourth International Sea Duck Conference, September 12–16, 2011, Seward, Alaska.

Canadian Wildlife Service Waterfowl Committee. 2022. Population Status of Migratory Game Birds in Canada: 2021. CWS Migratory Birds Regulatory Report Number 55.

Lepage, C. 2013. Red-breasted Merganser (*Mergus serrator*). In C. Lepage and D. Bordage (eds.), Status of Quebec waterfowl populations, 2009, pp. 205–212. Canadian Wildlife Service, Environment Canada Technical Report Series No. 525, Quebec City. 243 pp.

Lepage, C., and J.-P. L. Savard. 2013. Surf Scoter (*Melanitta perspicillata*). In C. Lepage and D. Bordage (eds.), Status of Quebec waterfowl populations, 2009, pp. 160–167. Canadian Wildlife Service, Environment Canada Technical Report Series No. 525, Quebec City. 243 pp.

Lepage, C., D. Bordage, D. Dauphin, F. Bolduc, and B. Audet. 2015. Quebec waterfowl conservation plan, 2011. Canadian Wildlife Service, Environment Canada Technical Report Series No. 532, Quebec. 222 pp.

Ministère de l'Environnement et de la Lutte contre les changements climatiques (MELCC). 2021. Aires projetées au Québec (version du 31 mars 2021) [in French only]. <https://services-mddelcc.maps.arcgis.com/apps/MapSeries/index.html?appid=8e624ac767b04c0989a9229224b91334>.

Ministère du Transport du Québec (MTQ). 2021. Avantage Saint-Laurent. https://www.transports.gouv.qc.ca/fr/ministere/role_ministere/avantage-st-laurent/Documents/avantage-st-laurent.pdf.

Mosbech, A., G. Gilchrist, F. Merkel, C. Sonne, A. Flagstad, and H. Nyegaard. 2006. Year-round movements of Northern Common Eiders *Somateria mollissima borealis* breeding in Arctic Canada and West Greenland followed by satellite telemetry. *Ardea* 94:651–665.

Rail, J.-F., and J.-P. L. Savard. 2003. Identification des aires de mue et de repos au printemps des macreuses (*Melanitta* sp.) et de l'Eider à duvet (*Somateria mollissima*) dans l'estuaire et le golfe du Saint-Laurent. Environnement Canada, Service canadien de la faune, région du Québec, Série de rapports techniques no. 408, Sainte-Foy, Quebec. 54 pp.

Sorte, C. J. B., V. E. Davidson, M. C. Franklin, K. M. Benes, M. M. Doellman, R. J. Etter, R. E. Hannigan, J. Lubchenco, and B. A. Menge. 2017. Long-term declines in an intertidal foundation species parallel shifts in community composition. *Global Change Biology* 23:341–352.