

Key Site 60: Chaleur Bay, New Brunswick and Quebec

Location: 47°58'37"N, 65°45'37"W

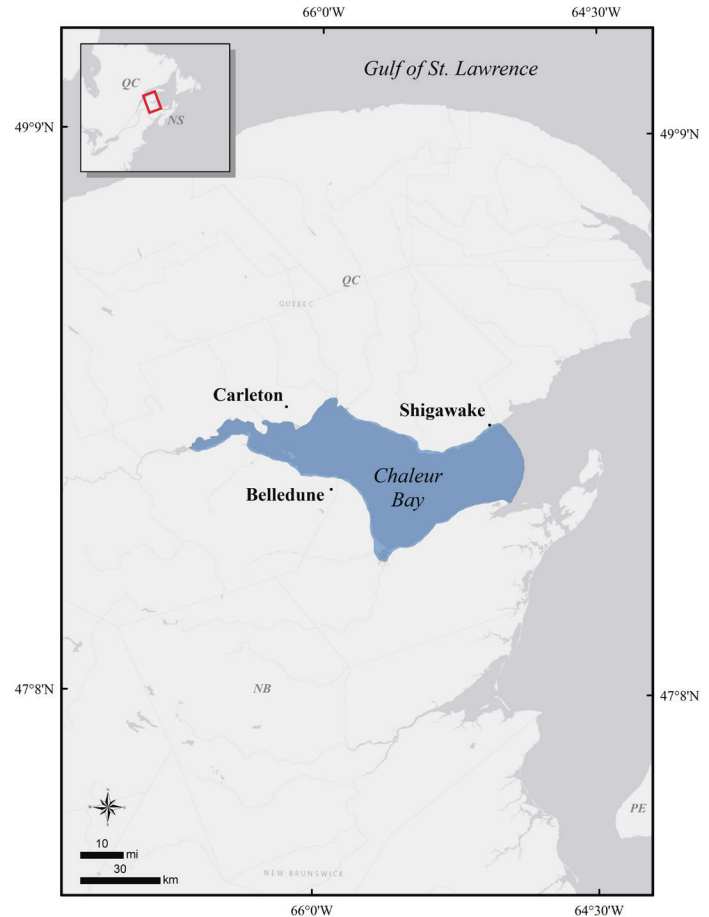
Size: 3300 km²

Description: Chaleur Bay is the largest bay in the Gulf of St. Lawrence, lying between the provinces of New Brunswick and Quebec. This key site extends east in New Brunswick from Campbellton towards Carleton Place and in Quebec from Listuguj to Shigawake. Several large rivers empty into the bay, including the Restigouche, Nepisiguit, Matapédia and Cascapédia rivers. This site includes a few islands, with the largest being Heron Island, a recognized important colonial nesting waterbird site (IBA Canada website).

Precision and Correction of Abundance

Estimates Presented: Estimates of Black and Surf scoters from aerial surveys have been photo-corrected. Other estimates of sea ducks during spring migration are based on shoreline transects surveyed by helicopter, without any visibility correction factor applied, and should therefore be considered minimum estimates.

Biological Value: This site is important to several species of sea ducks, especially during spring migration (Lamb et al. 2020). It is of particular importance to the Atlantic population of Black Scoters (*Melanitta americana*) because most adults are thought to stage there for two to three weeks before moving to northern breeding grounds (SDJV 2015, Lamb et al. 2021, Bowman et al. 2021). Indeed, Black Scoters are the most common scoter species staging at this site (representing more than 90% of scoters), with an estimated 53,200 individuals on a given day (McAloney et al. 2005). However, this estimate only provides a daily snapshot, considering that most of the Atlantic population passes through Chaleur Bay during the spring migration period (SDJV 2015, Lamb et al. 2021). Telemetry data suggest that areas of highest use by sea ducks occurs on the Quebec side of the bay along the Escuminac shore and in Cascapédia Bay and around the west side of Heron Island on the New Brunswick side. They use this site to feed on blue mussel (*Mytilus edulis*), Baltic clam (*Macoma balthica*), and herring spawn (Perry and McAloney 2005). Data collected as part of the Sea Duck Joint Venture's Atlantic and Great Lakes Sea Duck Migration Study show that birds arrived



as early as April 27, with a mean arrival date of May 2. Mean departure date was May 11, although some birds delayed departure until June 15 ($n = 47$; Gilliland et al. unpublished data). An earlier study found the migration peak for scoters in the Chaleur Bay occurred on May 3 (Falardeau and Savard 2003).

This site is also important to Surf Scoter (*Melanitta perspicillata*) during spring migration; 3300 individuals have been estimated on a given day from aerial surveys (McAloney et al. 2005), but considering the bird turnaround during migration, more Surf Scoters obviously use this area (Lepage et al. 2015). Based on satellite telemetry, the Belledune–Pointe-Verte sector is frequented by White-winged Scoters (*Melanitta deglandi*) at this time of year (SDJV 2015). Additional sea duck species staging at this key site during spring migration include Long-tailed Duck (*Clangula hyemalis*), Common Merganser (*Mergus merganser*), and Red-breasted Merganser (*Mergus serrator*); at least 10,000 individuals of each species has been estimated, along with about 5000 Common Goldeneyes (*Bucephala clangula*) (Canadian Wildlife Service unpublished data).

During the breeding season, 131 pairs of Common Eider (*Somateria mollissima dresseri*) were counted on Laviolette Island in the Saint-Omer Migratory Bird Sanctuary in June 2018 (BIOMQ 2019). Scattered pairs of Common Goldeneyes, Hooded Mergansers (*Lophodytes lophodytes*), and Common Mergansers nest near the mouth of large rivers on the south shore of the Gaspé Peninsula (Quebec Breeding Bird Atlas 2018), adjacent to the key site. Red-breasted Mergansers historically bred along this shore as well, but no evidence of recent breeding was noted during field work in 2010–2014 (Quebec Breeding Bird Atlas 2018).

This bay is also used as a regular wintering area for a component of the eastern population of the Barrow's Goldeneye, a species of special concern. The Quebec coast of Chaleur Bay annually hosts about 10 to 14% of the wintering population (Environment Canada 2013; Canadian Wildlife Service unpublished data).

Sensitivities: Food resource availability and quality (e.g., blue mussels, herring spawn) could be influenced by pollution as well as by aquaculture.

Potential Conflicts: Disturbance associated with boat traffic remains a potential conflict. The development of a petroleum handling facility at the port of Belledune, New Brunswick, will result in increased boat traffic and risk of oil spills. Conflicts exist with aquaculture, particularly near Carleton where scoters feed at mussel farms during spring migration. Predation of mussel lines has led growers to deter birds and to seek measures to protect their installations (Richman 2013). Because aquaculture sites are often established in natural sea duck feeding areas, hazing activities can exclude birds from some of their traditional, important, feeding sites.

Status: The key site includes the Saint-Omer Migratory Bird Sanctuary along the north shore of the bay; this sanctuary was mostly designated to protect nesting colonial birds, such as gulls and eiders (ECCC 2017). There are four Important Bird Areas identified within the bay, including the Restigouche River Estuary, which was identified because of its importance to Black Scoters. The other three sites—Heron Island, Banc de Carleton, and Pokeshaw Rock—are important for colonial nesting water birds (e.g., Double-crested Cormorant, *Phalacrocorax auritus*) (IBA Canada website). The province of Quebec

has also identified 20 *Aires de concentration d'oiseaux aquatiques* disseminated along the Chaleur Bay north shore (90.5 km² of coastline; MELCC 2021).

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