

Key Site 65: Digby Neck, Nova Scotia

Location: 44°27'47"N, 66°8'57"W

Size: 29 km²

Description: Nova Scotia is the easternmost province in Canada's Maritime Provinces, bordered by the Gulf of Maine to the southwest and the Atlantic Ocean to the south and east. The Digby Neck key habitat site is located along Nova Scotia's northwest Bay of Fundy coastline and includes rocky shorelines encompassing the majority of the seaward side of Long Island and Digby Neck.

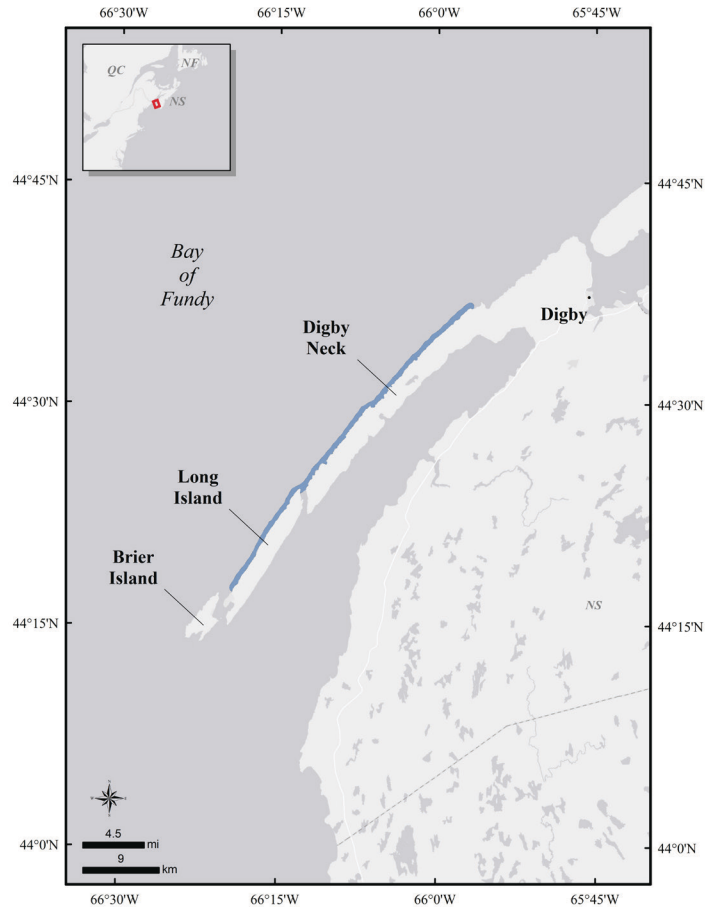
Precision and Correction of Abundance

Estimates Presented: Abundance estimates presented for this key habitat site have not been adjusted to account for incomplete detection or other biases. Abundance estimates should, therefore, be treated as minimum estimates.

Biological Value: This site is predominantly important to overwintering Eastern Harlequin Ducks (*Histrionicus histrionicus*) but also supports wintering American Common Eider (*Somateria mollissima dresseri*) and other sea duck species.

Harlequin Ducks breed in only a very small number of rivers in the Maritime Provinces (Stewart 2015) and no molting sites have been found here (Boyne 2008); however, a third of the eastern North American population winters in Nova Scotia and New Brunswick (Boyne 2008). During winter, Harlequin Ducks use shallow, coastal rocky shorelines at exposed headlands and over subtidal ledges where suitable prey (primarily marine invertebrates including crabs, amphipods, and gastropods) is found and where Harlequin Ducks may use boulders, rocks, and shorelines as haul outs (Robertson and Goudie 1999, Gutowsky et al. 2019). They primarily stay very close to shorelines but can roost on open water farther from shore at night (Robertson and Goudie 1999).

Winter occupation has been documented in the region since at least 1966 (Boyne 2008), but surveys primarily since 1994 by boat, plane, and helicopter have identified a number of locations at which birds regularly congregate between December and April (Canadian Wildlife Service [CWS] unpublished data, Nova Scotia Department of Lands and Forestry



unpublished midwinter survey data, Bird Studies Canada 2015, Gutowsky et al. 2019).

January through March surveys of the Digby Neck site by boat and helicopter between 2003 and 2019 have detected at least 48 birds per survey with approximately equal numbers of males and females. A maximum of 295 Harlequin Ducks were detected during a helicopter survey on March 7, 2013, representing approximately 7.4% of the Eastern North America population (NAWMP 2012). Aerial surveys can tend to underestimate bird abundance because they cause birds to flush early or stay close to shore and flock in tight groups (Boyne 2008); therefore, maximum abundance at this site is likely higher. Up to five Harlequin Ducks have also been observed during winter, adjacent to the Digby Neck key habitat site around Brier Island and Peter Island.

Other sea duck species found here in winter include American Common Eider (300–600 birds; CWS unpublished data), Surf Scoter (*Melanitta perspicillata*), Black Scoter (*Melanitta Americana*), White-winged Scoter (*Melanitta deglandi*),

Long-tailed Duck (*Clangula hyemalis*), Bufflehead (*Bucephala albeola*), Common Goldeneye (*Bucephala clangula*), Red-breasted Merganser (*Mergus serrator*), and rarely, Barrow's Goldeneye (*Bucephala islandica*) (Bird Studies Canada 2015, eBird 2019).

Sensitivities: Waterfowl are sensitive to human disturbance, particularly small vessel or ship traffic, during winter periods. Food availability and quality could be influenced by industrial, urban, and agricultural pollution and invasive species.

Potential Conflicts: Chemical and oil spills and water contamination from several sources, including shipping, urban, industry, and agriculture, are a concern. Despite a ban on hunting of Harlequin Ducks, some are still shot by hunters that misidentify Harlequin Ducks as other species or lack vigilance when hunting. Coastal development can disturb birds or degrade their habitat as shoreline development can occur very near coastlines and where birds haul out (Boyne 2008).

Status: This area is part of Bird Conservation Region 14, Atlantic Northern Forest and Marine Biogeographic Unit 11, Scotian Shelf and Bay of Fundy (Environment Canada 2013). At its southwest end the site intersects the Brier Island and Offshore Waters Important Bird Area, which supports high concentrations of seabirds and is one of the most important areas for Red-necked and Red Phalaropes in North America, and the Brier Island, Digby Neck Ecologically or Biologically Significant Area (EBSA; based on uniqueness, aggregation, and fitness consequences criteria; Westhead et al. 2013). Two protected areas lie onshore immediately adjacent to the site: Central Grove Provincial Park and Boar's Head Conservation Lands.

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