## Key Site 38: Killiniq Island-Button Islands, Nunavut

**Location:** 60°35'1"N, 64°39'57"W

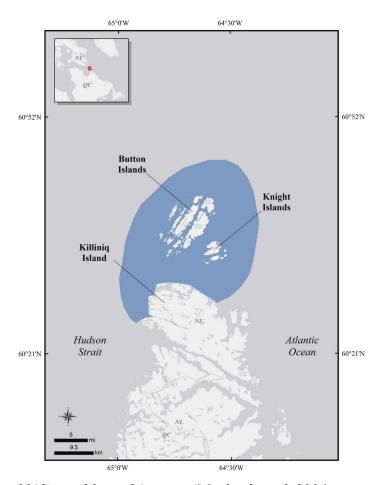
**Size:** 827 km<sup>2</sup>

**Description:** The Killiniq Island–Button Islands key site lies at the northern tip of the Labrador Peninsula, at the northeastern end of continental Canada and the southeast end of Hudson Strait. The site includes Killiniq Island and the Button Islands, Nunavut. Several straits in this site are important corridors for sea ducks flying between the Labrador coast and Ungava Bay: the McLelan and the Lenz straits, south and north of Killiniq Island, respectively, and the Gray Strait between the Killiniq and Button Islands.

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:** Due to the remoteness of this site, few surveys have been conducted to document use by sea ducks. However, the few data that exist, along with data from telemetry studies, indicate this area is an extremely important seasonal site for sea ducks, particularly during migration and winter. The importance of this site to sea ducks during the breeding season is low (Lock 1986).

Northern Common Eiders (Somateria mollissima borealis) breeding in the eastern Canadian Arctic and wintering in the Gulf of St. Lawrence and around Newfoundland fly south along Hudson Strait or Ungava Bay and cross the straits at the tip of the Labrador Peninsula from September to November before continuing south (Nakashima 1986, Mosbech et al. 2006a, Savard et al. 2011). In spring, Common Eiders migrate an opposite path on their return to Arctic breeding grounds, with most birds likely passing through McLelan Strait, but also in Gray Strait (Nakashima 1986). Thousands of Common Eiders pass through these straits daily for about two weeks (Nakashima 1986), peaking the third week of May to early June, based on tracked birds marked just west in Ungava Bay (Mosbech et al. 2006a, Savard et al. 2011). Given that one third of S. m. borealis (total population estimated at 550,000; NAWMP



2012) would use this route (Mosbech et al. 2006a; Savard et al. 2011), and that another considerable portion of that population migrates to Greenland to winter (Mosbech et al. 2006a), the contingent of Common Eiders migrating through the straits of the site could easily be more than 200,000 individuals. Other migrants at this site include Long-tailed Duck (Clangula hyemalis) and King Eider (Somateria spectabilis); both species have been observed during a reconnaissance winter survey (Canadian Wildlife Service unpublished data). Harlequin Ducks (Histrionicus histrionicus) (a Species of Concern through the Species at Risk Act) could pass by the Killiniq and Button islands during migration from breeding areas in the Hudson and Ungava bay drainages and Labrador to molting and wintering areas in Greenland (Brodeur et al. 2002, Chubbs et al. 2008).

The key site may be important during the molting period, because there are large colonies of Common Eiders in Ungava Bay southwest of the site (about 6800 nests; Chapdelaine et al. 1986) and smaller colonies along the northern Labrador coast

(about 2000 nests; Lock 1986). Bell Inlet, about 50 km south on Ungava Bay, hosts large numbers of molting Common Eider males (Nakashima 1986). Harlequin Ducks may also molt on the site, given that there have been birds molting just south of the site in the Cape Chidley and the Galvano Island areas along the Labrador coast (Brodeur et al. 2002, Gilliland et al. 2002).

Major groups of eiders winter in this key site (Nakashima 1986, Canadian Wildlife Service unpublished data). In 2010, a reconnaissance survey in February reported about 40,000 eiders, half King Eiders and half Common Eiders; most flocks were located west and south of the Button Islands, but also in the Knight Islands and west of Killiniq Island, with only a few more observations east of Killiniq Island (Canadian Wildlife Service unpublished data). Based on a satellite telemetry study, there could be King Eiders in the Killiniq Island–Button Islands area from October to March (Mosbech et al. 1986b, Appendix 1). About 1500 Long-tailed Ducks were also observed in the key site during the 2010 winter survey conducted by the Canadian Wildlife Service.

**Sensitivities:** Wintering conditions for sea ducks may improve if climate warming leads to more favorable ice conditions in winter. Sea ducks are sensitive to disturbanceat their colonies and to the pollution of offshore waters.

**Potential Conflicts:** Shipping and cruise ship traffic is expected to increase, and the shipping season may become longer (i.e., earlier in the spring and later into the fall), thereby increasing the possibility of interaction between migrating sea ducks and ships (ENRNT 2015). Expanded shipping and vessel traffic bring a higher risk of contamination from oil, other hazardous and noxious substances, or waste spills (accidental release or illegal discharge), and a risk of collision. Climate change and shipping may alter ice conditions and shipping routes, and cumulative disturbance could increase (ENRNT 2015). Shipping from current and future resource development projects in Hudson Bay (e.g., the deep water port of Churchill, Manitoba) and northern areas (e.g., the Baffinland Mary River Mine in Nunavut) may increase shipping through Hudson Strait (CHARS 2015). In 2016 Canada designated the Arctic waters indefinitely off limits to new offshore oil and gas activities and in 2019 suspended the terms of all active oil and gas licenses in the western and eastern Arctic offshore areas.

**Status:** The Button Islands is recognized as an International Biological Program site (Eng et al. in Mallory and Fontaine 2004).

## **Literature Cited**

- Brodeur, S., J.-P. L. Savard, M. Robert, P. Laporte, P. Lamothe, R. D. Titman, S. Marchand, S. Gilliland, and G. Fitzgerald. 2002. Harlequin Duck *Histrionicus histrionicus* population structure in eastern Nearctic. Journal of Avian Biology 33:127–137.
- Canadian High Arctic Research Station (CHARS). 2015. Science and Technology Program, call for proposals 2015–2016.
- Chapdelaine, G., A. Bourget, W. B. Kemp, D. J. Nakashima, and D. J. Murray. 1986. Population d'eider à duvet près des côtes du Québec septentrional. *In* A. Reed (ed.), Eider ducks in Canada, pp. 39–50. Canadian Wildlife Service, Ottawa, Ontario. 177 pp.
- Chubbs, T. E., P. G. Trimper, G. W. Humphries, P. W. Thomas, L. T. Elson, and D. K. Laing. 2008. Tracking seasonal movements of adult male Harlequin Ducks from central Labrador using satellite telemetry. Waterbirds 31(Special Publication 2):173–182.
- Environment and Natural Resources of Northwest Territories (ENRNT). 2015. Trends in shipping in the Northwest Passage and the Beaufort Sea. http://www.enr.gov.nt.ca/state-environment/73-trends-shipping-northwest-passage-and-beaufort-sea.
- Gilliland, S., G. J. Robertson, M. Robert, J.-P. L. Savard, D. Amirault, P. Laporte, and P. Lamothe. 2002. Abundance and distribution of Harlequin Ducks molting in eastern Canada. Waterbirds 25:333–339.
- Lock, A. R. 1986. A census of Common Eiders breeding in Labrador and the Maritime Provinces. *In* A. Reed (ed.), Eider ducks in Canada, pp. 30–38. Canadian Wildlife Service, Ottawa, Ontario. 177 pp.
- Mallory, M. L., and A. J. Fontaine. 2004. Key marine habitat sites for migratory birds in Nunavut and the Northwest Territories. Canadian Wildlife Service,

- Environment Canada, Occasional Paper no. 109. Prairie and Northern Region, Iqaluit. 92 pp.
- Mosbech, A., G. Gilchrist, F. Merkel, C. Sonne, A. Flagstad, and H. Nyegaard. 2006a. Yearround movements of Northern Common Eiders *Somateria mollissima borealis* breeding in Arctic Canada and West Greenland followed by satellite telemetry. Ardea 94:651–665.
- Mosbech, A., R. S. Dano, F. Merkel, C. Sonne, G. Gilchrist, and A. Flagstad. 2006b. Use of satellite telemetry to locate key habitats for King Eiders *Somateria spectabilis* in West Greenland. *In* G. C. Boere, C. A. Galbraith, and D. A. Stroud (eds.), Waterbirds around the world, pp. 769–776. Stationery Office, Edinburgh, UK. 940 pp.
- Nakashima, D. J. 1986. Inuit knowledge of the ecology of the Common Eider in northern Quebec. *In* A. Reed (ed.), Eider ducks in Canada, pp. 102–113. Canadian Wildlife Service, Ottawa, Ontario. 177 pp.
- North American Waterfowl Management Plan (NAWMP). 2012. North American Waterfowl Management Plan: People conserving waterfowl and wetlands. U.S. Fish and Wildlife Service, Arlington, VA. https://nawmp.org/sites/default/files/2017-12/NAWMP-Plan-EN-may23 0.pdf.
- Savard, J.-P. L., L. Lesage, S. G. Gilliland, H. G. Gilchrist, and J.-F. Giroux. 2011. Molting, staging, and wintering locations of Common Eiders breeding in the Gyrfalcon Archipelago, Ungava Bay. Arctic 64:197–206.



Common Eiders wintering in sea ice. Photo: Christine Lepage.