## Key Site 43: Twillingate to Little Fogo Islands, Newfoundland

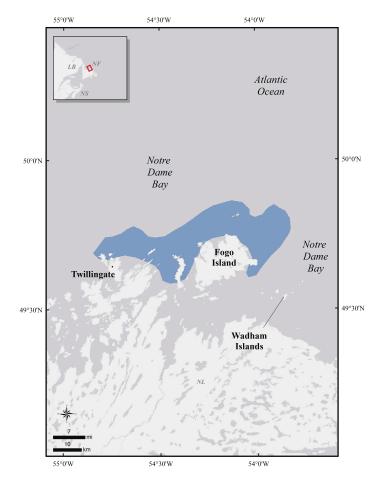
Location: 49°45'2"N, 54°19'9"W

**Size:** 955 km<sup>2</sup>

**Description:** This key site is located in Notre Dame Bay on the northeast coast of Newfoundland. The key site begins at the New World Islands, approximately 5 km northwest of the town of Twillingate, stretches east across the Change Islands, encompasses the Little Fogo Islands (an archipelago with over 100 small islands), and covers about half of the coastal waters around Fogo Island. The irregular coastline in this area is scattered with small settlements and fishing villages. There are numerous low rocky islands, shallow waters, and isolated rocks and shoals throughout the area.

Precision and Correction of Abundance Estimates Presented: Abundance estimates presented for this key habitat site have been adjusted to account for observer error in flock size, following methods developed by Bordage et al. (1998).

**Biological Value:** This key area is predominately important for wintering Common Eider (Somateria mollissima). Winter surveys conducted in this area by the Canadian Wildlife Service produced estimates ranging from 10,707 individuals in 2003 to 96,583 individuals in 2012. Over six years of winter survey data (2003, 2006, 2009, 2012, 2015, and 2018), an average of 27,725 individuals were estimated in this area (Canadian Wildlife Service Waterfowl Committee 2020). About 90% of the eiders that overwinter in this area are Northern Common Eider (Somateria mollissima borealis), with the remaining being American Common Eider (Somateria mollissima dresseri) and small numbers of King Eider (Somateria spectabilis) (Gilliland and Robertson 2009). This represents about 16% of the continental population of Northern Common Eider (NAWMP 2012). During winter, Common Eiders congregate in areas of open water, which can change over space and time. Common Eiders forage primarily on benthic invertebrates, including intertidal and subtidal mollusks (especially blue mussels, Mytilus edulis), crustaceans, and echinoderms (Goudie et al. 2000). Common Eiders wintering near the Wadham Islands Important Bird Area (15 km southeast of Fogo Island) may shift among foraging areas within this key area



depending on ice conditions and location of open water. Breeding Common Eiders in the Little Fogo Island area are believed to be birds that are unable to migrate due to injuries sustained during the hunting season but are still capable of breeding (S. Gilliland pers. comm.).

Other sea duck species that use this area include Long-tailed Duck (*Clangula hyemalis*), Common Goldeneye (*Bucephala clangula*), Common Merganser (*Mergus merganser*), and Red-breasted Merganser (*Mergus serrator*) (eBird 2020).

Sensitivities: Waterfowl can be sensitive to small vessel and ship traffic. Wintering eiders aggregate in dense flocks and, depending on sea ice conditions, hunting pressure can be intense in this area (Gilliland and Robertson 2009, Gilliland et al. 2009). Unintentional introduction of invasive species in this area could influence food resource availability and quality. Oil spills, both catastrophic and chronic, can have severe impacts on sea ducks. There is historical documentation of oil spills affecting Common

Eiders and other waterbird species in the inshore waters of southeastern Newfoundland (Wiese and Ryan 2003, Robertson et al. 2014).

Potential Conflicts: Nearby areas have a history of poaching, though in recent years it is believed that illegal hunting has decreased (NF013; IBA Canada 2021). Boat traffic in the area may cause disturbance and added risk of oil spills. Vessels operating at night in the sea ice in this area use high-intensity lighting, and operators have reported collisions with eiders that have damaged vessels and killed eiders. Any future increase in commercial fishing quotas may increase boat traffic in the area. Future increases in water temperature due to climate change could threaten the biological diversity of prey species that are critical to wintering sea ducks.

**Status:** There are no designated Important Birds Areas or sanctuaries in this area, although the eastern end is adjacent to other protected seabird areas (Wadham Islands and Funk Island). This key area is part of the Fogo Shelf Ecologically and Biologically Significant Area (Wells et al. 2017) and considered a top-priority Special Marine Area site for future conservation (CPAWS 2019). Most of the islands in the key site are under provincial ownership, with some private inholdings.

## **Literature Cited**

- Bordage, D., N. Plante, A. Bourget, and S. Paradis. 1998. Use of ratio estimators to estimate the size of common eider populations in winter. Journal of Wildlife Management 62:185–192.
- Canadian Parks and Wilderness Society (CPAWS). 2019. Special Marine Areas. Downloaded October 9, 2019. https://cpawsnl.org/ special-marine-areas/.
- Canadian Wildlife Service Waterfowl Committee. 2020. Population Status of Migratory Game Birds in Canada. November 2019. CWS Migratory Birds Regulatory Report Number 52.
- eBird. 2020. eBird: An online database of bird distribution and abundance [web application].

- eBird, Ithaca, New York. http://www.ebird.org. (Accessed April 20, 2020).
- Gilliland, S., and G. Robertson. 2009. Composition of Eiders Harvested in Newfoundland. Northeastern Naturalist 16:501–518. https://doi.org/10.1656/045.016.n402.
- Gilliland, S. G., H. G. Gilchrist, R. F. Rockwell, G. J. Robertson, J.-P. L. Savard, F. Merkel, and A. Mosbech. 2009. Evaluating the sustainability of harvest among Northern Common Eiders in Greenland and Canada. Wildlife Biology 15:24–36.
- Goudie, R. I., G. J. Robertson, and A. Reed. 2000. Common Eider (*Somateria mollissima*), version 2.0. *In* A. F. Poole and F. B. Gill (eds.), The Birds of North America. Cornell Lab of Ornithology, Ithaca, NY. https://doi.org/10.2173/bna.546.
- IBA Canada. 2021. https://www.ibacanada.com/.
- [NAWMP] North American Waterfowl Management Plan. 2012. North American Waterfowl Management Plan: People conserving waterfowl and wetlands. U.S. Fish and Wildlife Service, Arlington, VA. https://nawmp.org/content/north-american-waterfowl-management-plan.
- Robertson, G. J., S. G. Gilliland, P. C. Ryan, J. Dussureault, K. Power, and B. C. Turner. 2014. Mortality of Common Eider, *Somateria mollissima* (Linnaeus, 1758), and other water birds during two inshore oiling events in southeastern Newfoundland, 2005 and 2006. Canadian Field-Naturalist 128:235–242.
- Wells, N. J., G. B. Stenson, P. Pepin, and M. Koen-Alonso. 2017. Identification and descriptions of ecologically and biologically significant areas in the Newfoundland and Labrador Shelves Bioregion. DFO Can. Sci. Advis. Sec. Res. Doc. 2017/013. v + 87 pp.
- Wiese, F. K., and P. C. Ryan. 2003. The extent of chronic marine oil pollution in southeastern Newfoundland waters assessed through beached bird surveys 1984–1999. Marine Pollution Bulletin 46:1090–1101.