

Key Site 25: Lambert Channel, Nunavut

Location: 68°35'33"N, 114°5'32"W

Size: 423 km²

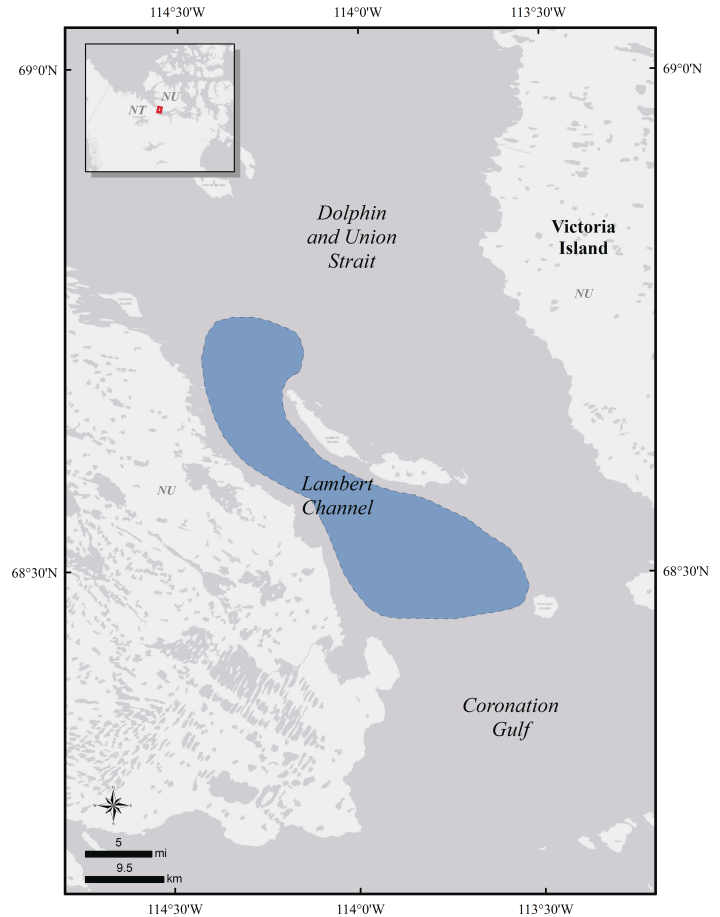
Description: Lambert Channel is a narrow stretch of water between Dolphin and Union Strait and Coronation Gulf, near the community of Kugluktuk (aka Coppermine). It lies in the Low Arctic oceanographic zone (Nettleship and Evans 1985). A small polynya occurs in southern Dolphin and Union Strait between Victoria Island and the mainland. The appearance of open water is variable, ranging from February to June. Open water usually appears first on the southwestern side of Lambert and Camping islands and remains until breakup commences in the first part of July. Lambert Channel begins to freeze before the eastern side of Dolphin and Union Strait and is usually ice-covered by the end of October or the beginning of November (Smith and Rigby 1981). Lambert Channel is very shallow in places and contains numerous shoals. Hydrographic charts indicate that it has a strong current with heavy tidal rips (Smith and Rigby 1981).

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: More than 70,000 Common Eiders (*Somateria mollissima v-nigra*) were observed in this area from June 6 to 19, 1980, with roughly 18,000 eiders observed in one day. About 90% of the birds were resting and feeding, suggesting that it is a critical feeding area prior to nest initiation (Allen 1982). That survey also recorded approximately 5000 Long-tailed Ducks (*Clangula hyemalis*), with more than 2000 birds observed on one day (Allen 1982). On June 9, 1993, 64,000 Common Eiders (at least 64% of the Canadian *v-nigra* population at that time) were observed in the polynya, most concentrated in the shallow, southeast end (Alexander et al. 1997).

Sensitivities: Migrating marine waterfowl are heavily dependent on shore leads and polynyas for feeding and resting (Dickson and Smith 2013). The degradation of these open-water areas could result



in severe negative impacts on the birds. In a warming and increasingly variable climate, unpredictability of access to leads and open water areas may be greater due to shifting winds on unconsolidated ice, which could result in severe negative impacts on the birds (Lovvorn et al. 2015). Offshore foraging areas for marine birds are susceptible to pollution and disturbance from increased ship traffic. Degradation of this site could have a significant impact on populations moving through the area.

Potential Conflicts: Changes in ice patterns due to climate change, and increased shipping activity related to mineral exploitation and cruise ships in the region, could have an impact on birds using Lambert Channel. 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: Lambert Channel has been designated an Ecologically and Biologically Significant Area by Fisheries and Oceans Canada (DFO 2011). This key

site also overlaps with a Key Marine Habitat Site (Site 20; Mallory and Fontaine 2004). Marine waters of Lambert Channel are under federal jurisdiction.

Literature Cited

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