

Sable Island Grey Seal Breeding Area IMMA

Description:

Sable Island is a crescent shaped partially vegetated sandbar/island approximately 42 km long located 300 km east-southeast of Halifax Nova Scotia, at the outer edge of the Scotian Shelf. The Scotian Shelf which represents the continental margin south of Nova Scotia comprises the Shelf and Slope regions. The Scotian Shelf is approximately 700 km long and 160-240 km wide with an average depth of 90 m, and is bounded by the Laurentian Channel to the east, and the Northeast Channel to the west. The bottom is characterized by deep basins at mid shelf and shallow banks in the outer portions (Smith et al., 1978).

Grey seals generally forage within 100 km of Sable Island; bathymetry may extend to over 900 m in depth, in areas where grey seals occur, but more than 80% of locations are from areas with water depths of <100 m (Austin et al., 2006).

Criterion B: Distribution and Abundance

Sub-criterion B1: Small and Resident Populations

Sable Island is a crescent shaped partially vegetated sandbar approximately 42 km long located along the outer edge of the Scotian Shelf, approximately 300 km east of Halifax, Nova Scotia (Mosnier et al., 2023; Hamilton et al., 2023; Lidgard et al., 2023). The island has long been known as an important haul-out area for Northwest Atlantic grey seals (*Halichoerus grypus*) (Mansfield & Beck, 1977; Rossi et al., 2021). A series of aerial surveys flown in eastern Canada during the summers of 2019-2021 counted hauled-out grey seals. The surveys covered the entire Canadian



Area Size

15,072 km²

Qualifying Species and Criteria

Grey Seal – *Halichoerus grypus*

Criterion B (2); C (1)

Summary

The largest grey seal breeding colony in the world is on Sable Island, a 40 km long crescent-shaped sandbar located approximately 300 km east southeast of Halifax Nova Scotia. The island is also an important haul-out area for grey seals (*Halichoerus grypus*) during the non-breeding period of the year. Grey seals use the island for breeding, raising their pups, moulting and resting between foraging trips, which extend over portions of the Scotian Shelf.



Figure 1: Grey seal (*Halichoerus grypus*) breeding colony on Sable Island, Northwest Atlantic. Photo credit: Garry Stenson.



Figure 2: Grey seal (*Halichoerus grypus*) female with pup (foreground) and adult male on Sable Island. Photo credit: Garry Stenson.

Atlantic coast south of 51.5° N, including the Gulf of St Lawrence. A total of 41,000 grey seals were counted, of which 22,000 were hauled-out on Sable Island. Global comparisons in abundance are complicated by differences in assessment methodologies and dispersal (breeding season pup surveys vs post breeding adult haulout counts). However, with a summer count of 22,000, Sable Island must be regarded as a globally major non-breeding grey seal haul-out area.

Criterion C: Key Life Cycle Activities

Sub-criterion C1: Reproductive Areas

Grey seals breed on a variety of substrates including pack ice and sandy or rocky shores of isolated islands (den Heyer et al., 2020). Sable Island provides a secure haul-out area for grey seal reproduction and for resting outside of the breeding season. The animals generally forage on the Scotian Shelf, preferably in areas where water depths are less than 100m deep and within 100 km of the island (Breed et al., 2006, 2009, 2013). In Canada pupping occurs during December-February. The Canadian grey seal total population has increased from roughly 10,000 animals in the early 1960s to current estimates of 366,400 animals (Hammill et al., 2023). Using pup production as an index of abundance, the estimated global pup production is 192,150 animals of which 87,500 or 46% of the global total are born on Sable Island, making it the largest grey seal pupping colony in the world (Table 4 in NERC-SCOS, 2022; den Heyer et al., 2020).

Supporting Information

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