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Year-round acoustic monitoring of large whales in polar environments: a comparison of Davis and Bransfield Straits

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Both Davis Strait, in the Arctic between Canada and Greenland, and Bransfield Strait, in the Antarctic between the Antarctic Peninsula and the South Shetland Islands, are areas that experience extreme inter-seasonal differences in temperature, ice cover and productivity. The seasonally productive nature of both of these ice-influenced areas provides habitat for foraging large whales such as blue (Balaenoptera musculus) and fin (B. physalus) whales. In order to monitor and compare the seasonal occurrence of these species at high latitude regions at opposite ends of the globe, autonomous underwater hydrophone packages were deployed for one year in each Strait. Three instruments were deployed and recovered in Davis Strait from October 2006-07 and five in Bransfield Strait from November 2006-07. Blue and fin whales were recorded seasonally in both regions and exhibited the geographic acoustic distinctions between northern and southern hemisphere populations. Comparisons of the seasonal occurrence and the influence of ice cover on this occurrence will be compared and contrasted between north and south.