

Movements of walrus (*Odobenus rosmarus*) tracked with satellite transmitters between Central West Greenland and Southeast Baffin Island 2005-2008

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Abstract

Between 2005 and 2008 31 walrus were tagged at their wintering grounds in at Store Hellefiske Banke, Central West Greenland (n=23) and at their summering grounds of the coast of Southeast Baffin Island, Canada (n=8). The walrus were monitored for a total of 1029 days and tracked for 22142 km. The investigation documented a connection between the West Greenland walrus and the Eastern Baffin Bay walrus as 8 of the transmitters lasted long enough to show the migrations across the Baffin Bay from Greenland to Canada. The walrus left the Store Hellefiske Banke in the start of May (range: 29 April to 17 May) and it took on average 7 days to cross the 400 km over the Davis Strait. The migration routes were quite similar and took place at the most shallow and the narrowest part of the strait. In addition one flipper tag deployed off South Baffin Island was recovered on a hauled male walrus on Store Hellefiske Banke, documenting the reverse migration as well. A partly sexual segregation was observed with males being farther from shore, in denser ice, on greater depths and having a larger home range than females during the spring along the West Greenland coast. During autumn along the South East Baffin Island coast the dispersal was more condensed and the segregation was more pronounced. Again the males were farther from shore, on greater depths and having a larger home range than females during this season. The spring dispersal and migration towards Canada was closely linked to the extent and retreat of the pack ice edge. Four different tag types were used with average longevity/maximum longevity as follows: Pack tag: 14/24 SPOI Inplant tag: 36/66, SPOI Matchbox tag: 40/128 and Tusk tag: 50/99.

Key words: Walrus, *Odobenus rosmarus*, Davis Strait, migration, satellite telemetry.