

Movement and haulout behavior of ringed seals during the 2011 open water season

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Twenty ringed seals (*Phoca hispida*) of all age classes were satellite tracked with the Argos system between July and November 2011. Seals were tagged near Barrow, AK using a combination of head-mounted (SPLASH) and flipper-mounted (SPOT) tags. SPLASH tags provided locations of seals in the water, as well as dive, temperature, and haulout data. SPLASH tags were glued to the hair and will be shed during the annual molt. SPOT tags were mounted to last more than a year but only provide location and haulout information when seals are out of the water. Locations were derived using the new Argos Kalman filtering method. Retention of SPLASH tags was lower than expected likely due to an unidentified disease that caused hair loss beyond the normal molt period. Several tagged seals made extensive roundtrip movements between the Alaska coast and the southernmost ice edge, with some seals traveling more than 400 km north of Point Barrow. One individual traveled more than 724 km east to Mackenzie Bay, Canada in the southeastern Beaufort Sea. Foraging type movements occurred both over the continental shelf and over the deep waters of the Arctic Basin. Seals hauled out periodically throughout the open water season either on shore or on the pack ice.

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