Ringed seals (Phoca hispida) are small ice-associated seals with a circumpolar distribution. In the Bering and Chukchi seas, little is known about the movements and behavior of ringed seals located in the sea ice of the shear zone, between heavy shorefast ice and loose pack ice. The objectives of this study were to 1) determine if a simple low-cost method for the live-capture of ringed seals on sea ice was feasible, and 2) obtain baseline information on the movements and dive behavior of ringed seals associated with relatively unstable ice. An adult male seal was captured while basking on young (approx. 1 month old; 0.75 m thick) sea ice in the Bering Strait (65'46.30 N 168'58.00 W) during May 2001. The seal was prevented from entering the water after its breathing hole was blocked by a plywood slide manually deployed from a blind. A satellite-linked timedepth recorder was glued onto the fur of the animal's mid-dorsal region to monitor its subsequent movements and dive behavior. Dive data bins stored information on dive depth, duration, and time at depth. The unit transmitted over 5 weeks, during which the animal remained offshore, dove to depths over 50 m, and traveled more than 620 km north in the Chukchi Sea with the pack ice. Results of this study include a simple and effective method of on-ice live-capture and the first documentation of ringed seal migration northward during the late spring retreat of the Bering Sea pack ice into the Chukchi Sea.

Capture and Movements of an Alaskan Ringed Seal in the Bering Strait

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