

Freshwater Seals of Iliamna Lake: where are they when the lake is frozen?










Dave Withrow
NOAA, Alaska Fisheries Science Center
National Marine Mammal Laboratory
Seattle, WA 98115
dave.withrow@noaa.gov



Jennifer Burns
Department of Biological Sciences
University of Alaska, Anchorage
Anchorage, AK 99508
jmburns@uaa.alaska.edu



James Van Lanen
Alaska Department of Fish and Game
Division of Subsistence
Anchorage, AK 99518
james.vanlanen@alaska.gov

-  Iliamna Lake, a large freshwater lake located approximately 365 km southwest of Anchorage, is home to about 250-300 harbor seals.
-  Although the seals have access to Bristol Bay via the (115 km long) Kvichak River, it remains unclear whether all or some proportion of the seals remain in the lake when it is iced-over.
-  Aerial surveys in early April have documented as many as 73 seals hauled out on the ice, but in some years, no seals were found.
-  We interviewed Alaska Native elders and hunters and asked where the seals are when the lake and surrounding rivers are frozen-over.
-  To our surprise, they consistently told us that many seals are under the ice in air pockets and they can hear seals snorting beneath them as they walk across the ice.
-  We surmise that air pockets are formed when lake water levels drop after the initial formation of the ice sheet. Air pockets may also be formed during events where the ice sheet is pushed in one direction by wind forming pressure ridges next to islands and reef areas.
-  A similar phenomenon has been described in the Lac des Loups Marins area east of Hudson Bay in northern Québec, Canada where the only other known group of freshwater harbor seals occurs.

