

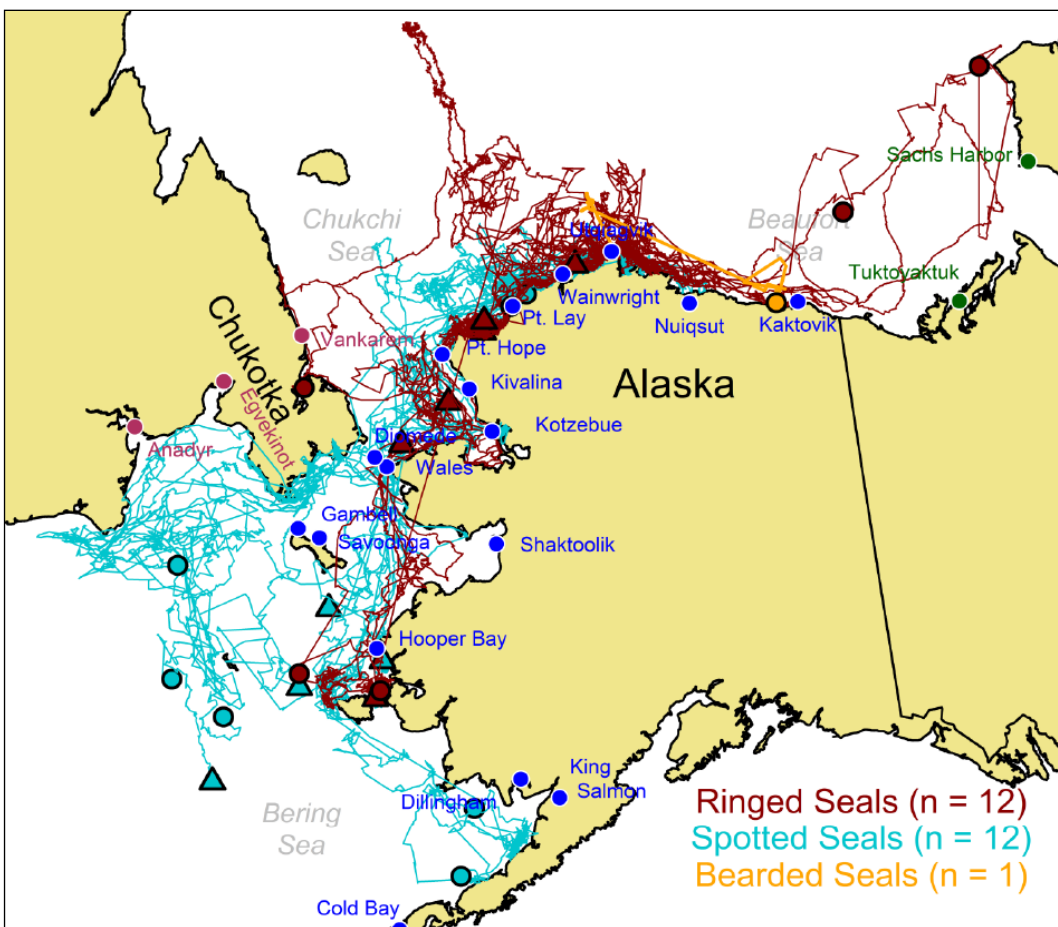


## Qasigiaq or Spotted Seal seasonal movements, dives, and haulout behavior in the Beaufort, Chukchi, and Bering Seas (2012-2018)

The objective of this project is to monitor the movements, habitat use, and behavior of spotted seals captured and satellite tagged near Utqiagvik. These satellite tags provide information on seal location, diving, haulout, and ocean characteristics (e.g., salinity, temperature). This detailed information is useful for better understanding spotted seal biology.

Recent results indicate that these seals make vast migratory movements (see map), some travelling as far as Bristol Bay and west past the Gulf of Anadyr in Russia. This suggests that marine issues in other parts of Alaska and Russia are relevant and important to the local ecosystem near Utqiagvik. A comparison of these movements to those of ringed seals (blue vs. red tracks) provides further insights into the different habitat requirements for each species. Haulout data has identified a number of important areas around the state, which is useful information for wildlife management decision makers in terms of prioritizing habitat.

It is also interesting that spotted seals tend to dive to the bottom while over the continental shelf; a behavior that has not been well documented previously. Meanwhile, their use of coastal, river, and lagoon systems underscores the importance of this habitat for spotted seals. Similar efforts are also underway to better understand bearded seals, but few have been tagged.



### Map of all tagged seal movements from 2016.

This includes spotted seals (blue tracks) and ringed seals (red tracks). A single tagged bearded seal is also shown (orange tracks). Note that if a tag shuts down for a period of time and then re-starts, there will be a straight line connecting the shutdown and startup points. This accounts for the long straight line crossing western Alaska and in the Beaufort Sea.

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