

The Beaufort Sea shelf-edge current in a warming climate

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Research questions

- How does the Beaufort shelf-edge current vary seasonally and from year to year?
- What are the impacts of these changes on the ecosystem of the Pacific Arctic region?

Why we should care

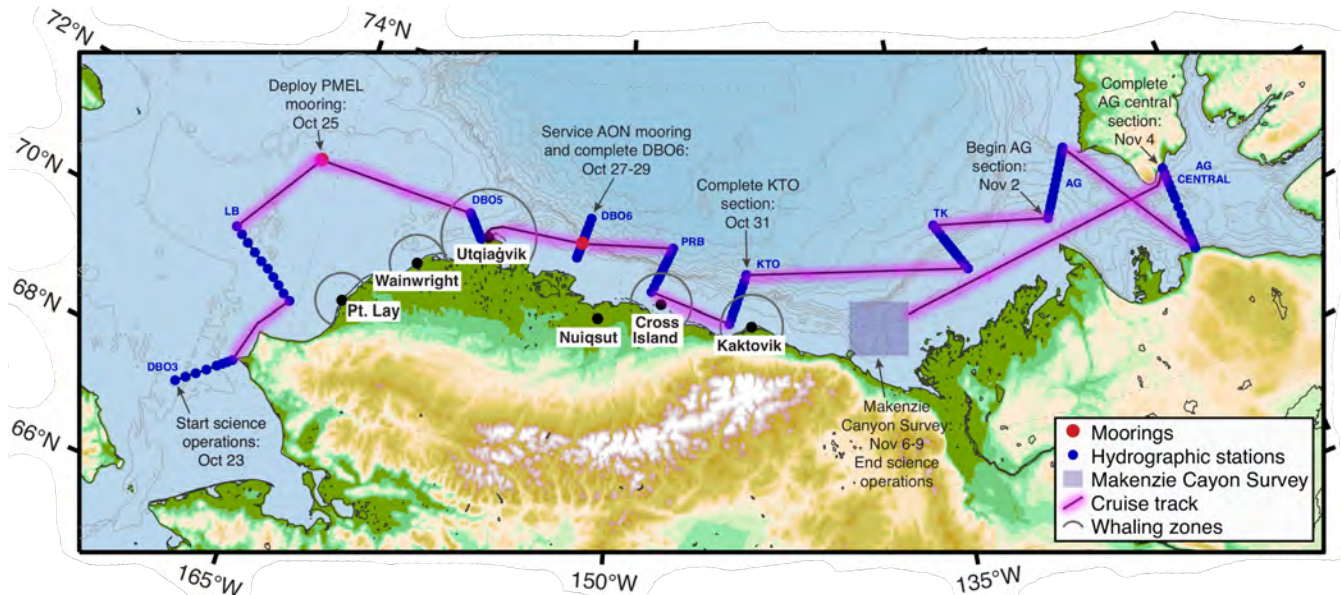
The Beaufort shelf-edge current brings heat, nutrients, and zooplankton to the region, which strongly influences ice melt, phytoplankton growth, and whale habitat and occurrence.

What we will measure

During the cruise we will measure: water velocity, temperature, salinity, fluorescence, nutrients, and marine mammal occurrence.

General 2020 cruise plan

We will carry out shipboard transects that extend offshore from the Chukchi Sea to the Beaufort Sea. We will also service a mooring approximately 85 miles east of Utqiagvik and survey circulation in Mackenzie Canyon in the Canadian Beaufort Sea. The exact dates and locations may change due to ice conditions, subsistence activities, and other variables.



Timeline

Oct. 16: Depart Seward	Oct. 31: Kaktovik line
Oct. 23: Begin science operations	Nov. 6-9: Mackenzie Canyon
Oct. 27-29: Service AON mooring	Nov. 19: Arrive Seward

Sampling Sites

Please see the map for our planned sample areas and cruise track.

Daily science updates and additional information

Due to the COVID pandemic, we are not able to have a community observer sail with us. A daily email will be sent with updates on our activities and route during the cruise. Please email Robert Pickart at rpickart@whoi.edu with questions. Prior to the cruise, the science party attended two online webinars on Coastal Cultures in the Alaskan Arctic and Alaskan Native Organizations.