

# BEAUFORT SHELF BREAK ECOLOGY – PLANKTON, FISH, AND BELUGAS

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## OUR QUESTIONS

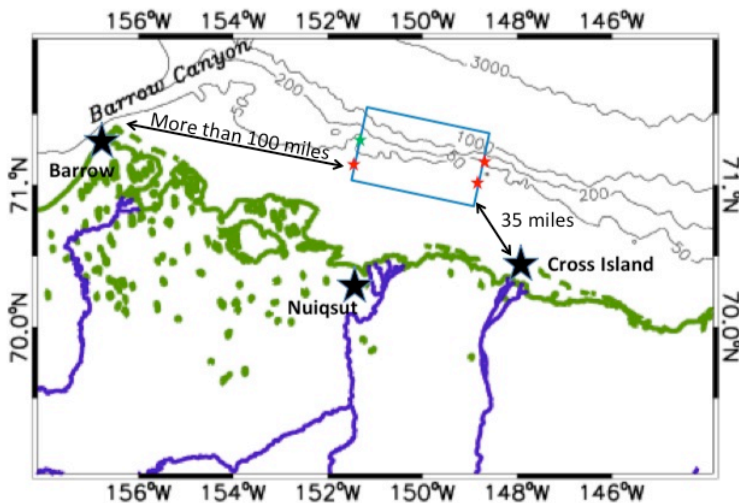
- Why are beluga whales found along the shelf break in the Beaufort Sea?
- Do winds from the east (E) produce good feeding conditions (lots of Arctic cod) for belugas along the shelf break?

## WHAT WE THINK (BUT DON'T KNOW) IS HAPPENING

Winds from the E bring high numbers of plankton (copepods, krill) into shallow water along the shelf break (200-300 ft. bottom depth). Many Arctic cod swim to eat the plankton so the fish are abundant at the shelf break. Belugas then can easily find arctic cod to eat. We need to sample during both winds from the E and not from the E.

## HOW WE WILL DO THIS

Cruise August 25 – September 18, 2017 on *R/V Sikuliaq* to Beaufort Shelf Break



Our working area (light blue box). Blue and red stars show locations of moorings that will measure currents, plankton and fish and listen for beluga whales.

## TIMELINE (ESTIMATED)

**Aug. 25:** Leave Nome  
**Aug. 27-28:** Pass Wainwright and Barrow/Utqiagvik going north  
**Aug. 28–Sept. 14:** In working area  
**Sept. 14-15:** Pass Barrow/Utqiagvik and Wainwright going south  
**Sept. 18:** Pass through Bering Strait  
**Sept. 18:** Arrive Nome

## WHAT WE WILL MEASURE

- Ocean temperature and currents
- Plankton and fish distributions from nets and from fish finder (mooring, ship)
- What the fish are eating
- Beluga presence (from moorings and from visual surveys from the ship)

We will have a community observer on board as part of our science party. The chief scientist (Carin Ashjian) will send out daily science updates to interested organizations and people (let her know if you want to be on the list, [carin@whoi.edu](mailto:carin@whoi.edu)). We will have a Facebook page for the project. The *R/V Sikuliaq* will be in regular communication with local communities.