

Fish and Macrozooplankton acoustics – Healy 0701

Alex.DeRobertis@noaa.gov

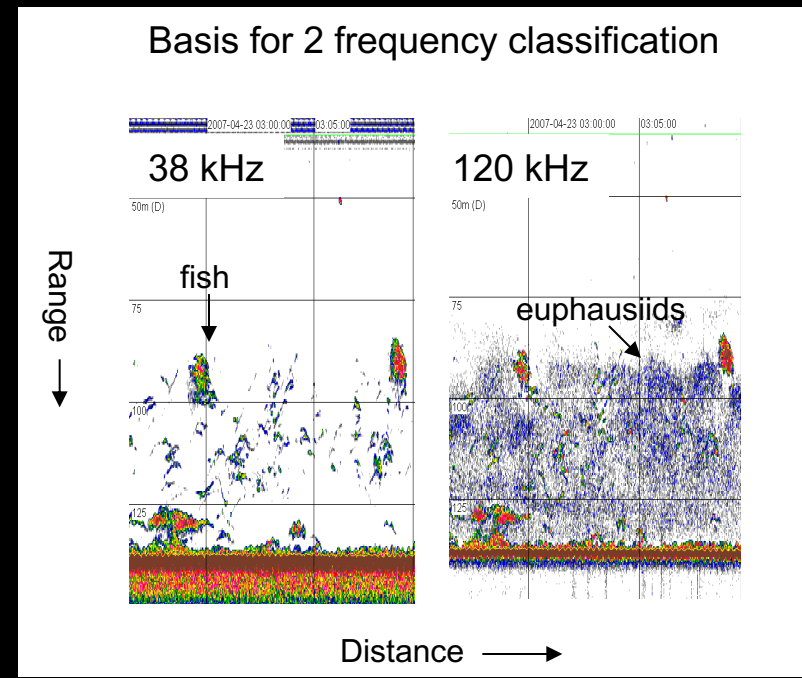
Question: How does winter ice cover and low temperature influence the distribution of fish and euphausiids in the EBS?

So far:

- Equipment installation aboard *Healy*
- Methods development for in-ice acoustics
- Collection and processing of acoustic data from *Healy*, *Miller Freeman*
- 2-frequency “Fish” and “Euphausiid” discrimination
- Preliminary distribution maps - under ice distribution a ‘first’ in EBS

Future Plans:

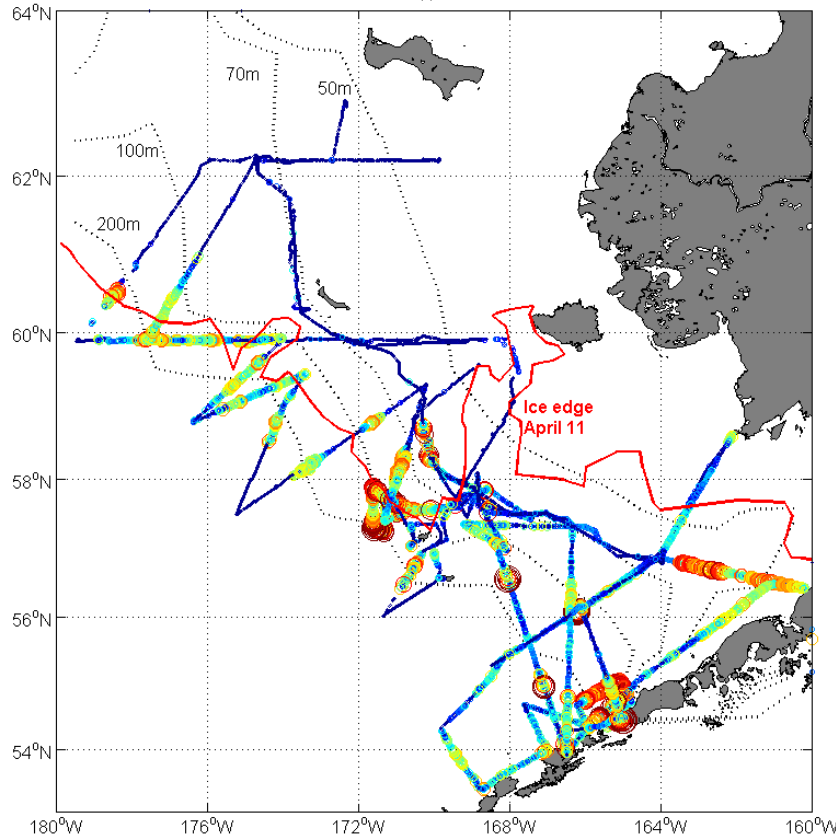
- Finalize calibrations & processing
- Study distributions in relation to environment



(very) Preliminary Distribution Maps

“FISH”

Healy 0701 Backscatter S_A ($m^2 nmi^{-2}$) attributed to fish



“Euphausiids”

Healy 0701 Backscatter S_A ($m^2 nmi^{-2}$) attributed to euphausiids

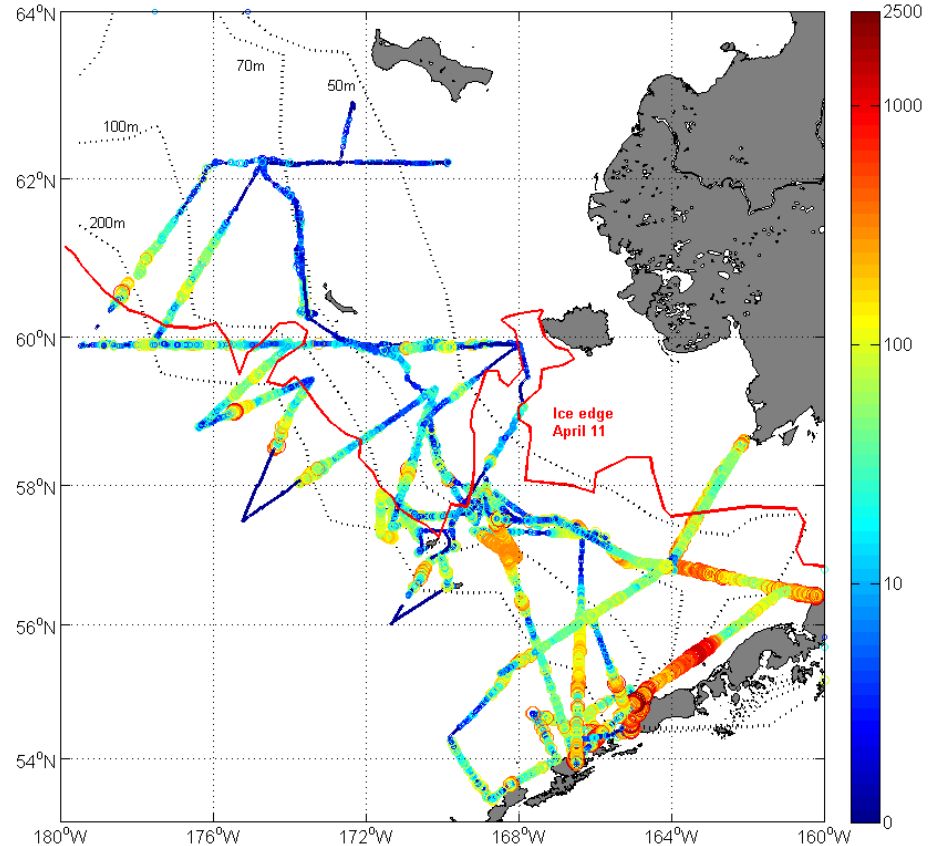


Figure 2. Acoustic backscatter (S_A $m^2 nmi^{-2}$) attributed to **A)** fish and **B)** euphausiids along *Healy's and Miller Freeman's* tracklines. The 200, 100, 70 and 50m isobaths are shown as gray dotted lines, and the approximate position of the ice edge at the start of the cruise is given in red. Symbol size and color is proportional to the intensity of acoustic backscatter.