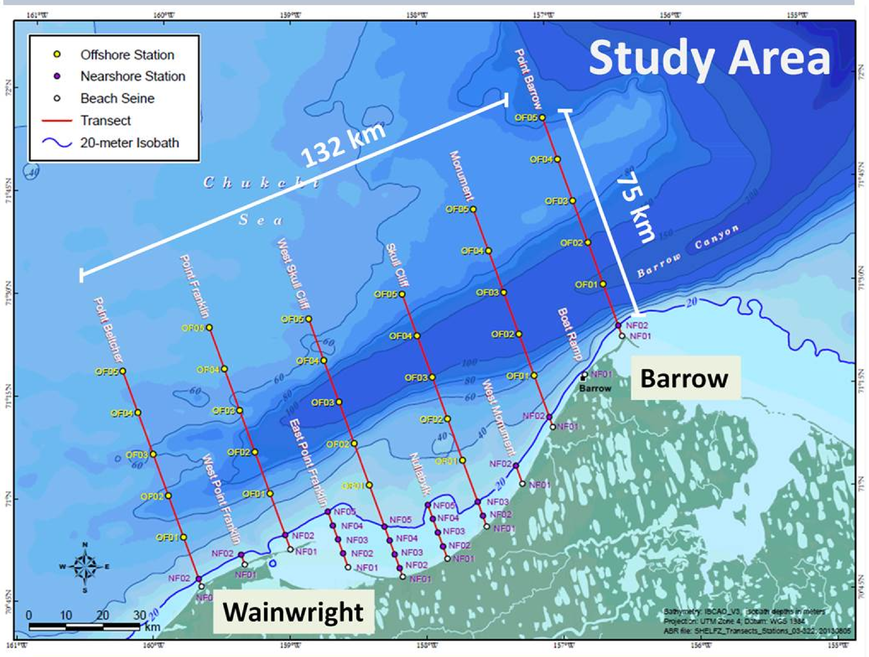
SHELFZ - Shelf Habitat and EcoLogy of Fish and Zooplankton

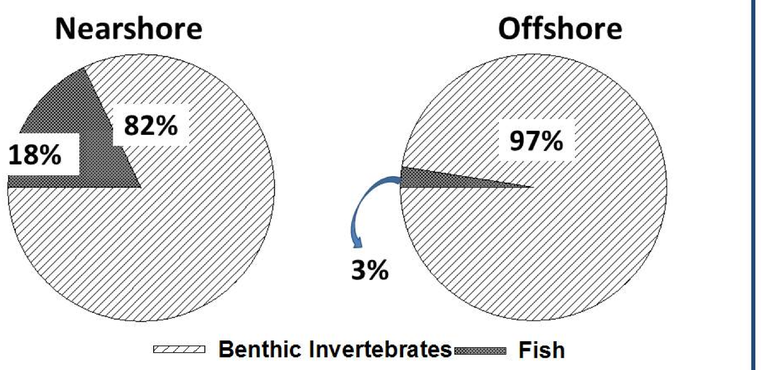
Leandra de Sousa[1], Alex Pinchuk[2], S. Parker-Stetter[3], J. Horne[3], Elizabeth Logerwell[4], J. Vollenweider[4], Ron Heintz[4]

[1] North Slope Borough Department of Wildlife Management [2] University of Alaska Fairbanks School of Fisheries and Ocean Sciences,
[3] University of Washington School of Aquatic and Fishery Sciences, [4] Alaska Fisheries Science Center- NOAA

OBJECTIVE

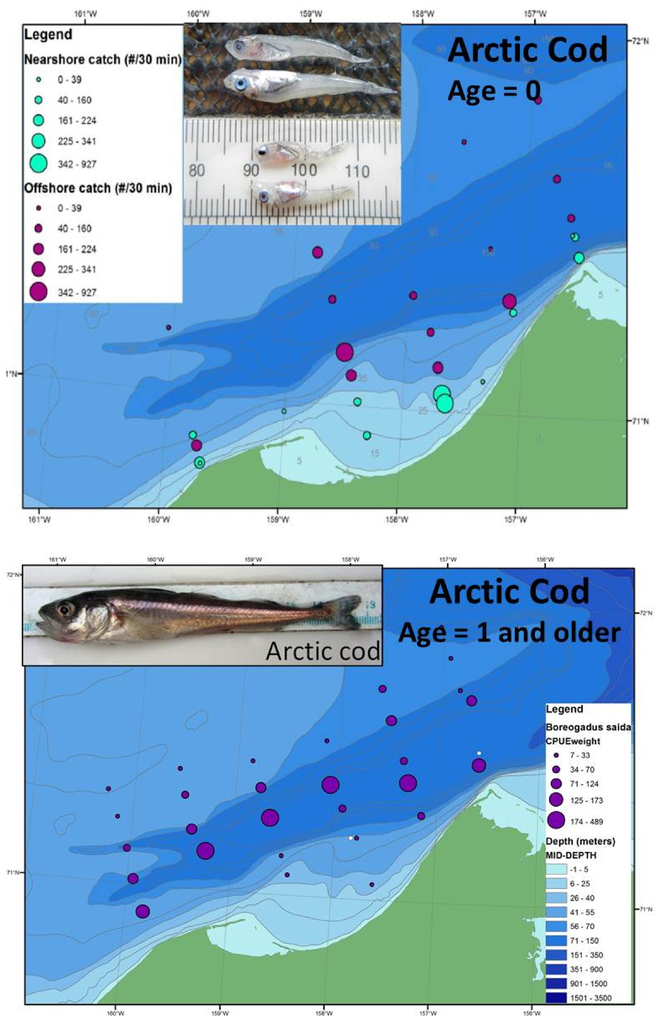
To better understand Arctic fish habitat and distribution in nearshore and offshore environments. These fish are important prey species for marine mammals. The surveys were conducted from 17 August to 5 September 2013.



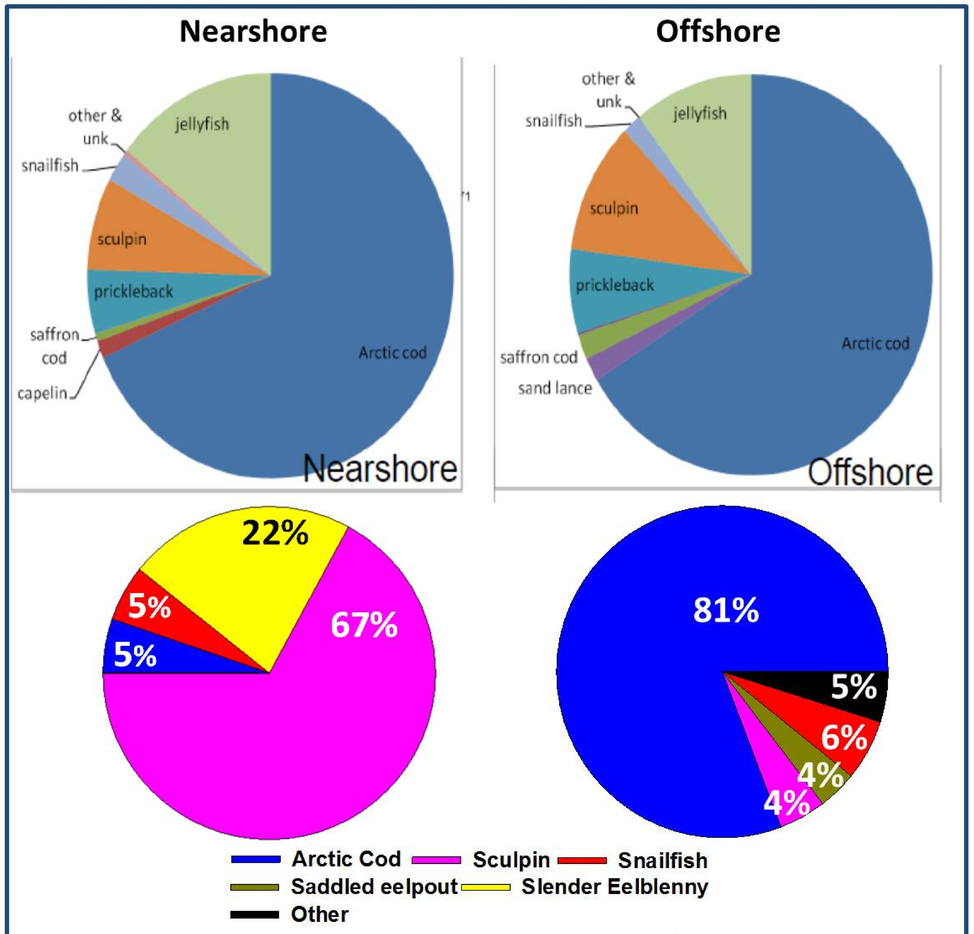


Percent composition (kg) of benthic (or bottom) invertebrates versus fish in the nearshore (< 20 m depth) and offshore (> 20 m depth). (20 meters = 65 ½ feet)

ACKNOWLEDGEMENTS: Thanks to R/V Ukpik Captain Mike Fleming and Captain and Crew of F/V Alaska Knight, Brian Person, Todd Sformo, Hugh Olemaun, Andy Whitehouse, Troy Buckley, Darcie Neff, Roger Clark, Bill Koplin, Arnold Arey and the North Slope Borough Department of Wildlife Management. Funding from the Coastal Impact Assessment Program (USFWS) and NSB. For more information, contact Leandra de Sousa at 852-0350 or email leandra.sousa@north-slope.org



Top: Midwater trawl catch of Arctic Cod in offshore (> 20 m depth) and nearshore (< 20 m depth) habitats.
Middle: Bottom trawl catch of Arctic Cod in offshore habitat (> 20 m depth)
Bottom: Bottom trawl catch of Sculpins in offshore habitat (> 20 m depth)



Percent species composition (kg) of midwater (**Top**) and bottom trawl (**Bottom**) catches in the nearshore (< 20 m depth) and offshore (> 20 m depth)

SUMMARY

- This is the first survey in which fish and habitat data have been collected at the same time in the nearshore and offshore habitats along Alaska's Chukchi Sea coast.
- Offshore and nearshore habitats had different fish species composition and distribution:
  - Arctic Cod was the predominant fish species caught in midwater (nearshore and offshore) and offshore bottom trawls.
  - Sculpins were the predominant fish caught in nearshore bottom trawls.
- Invertebrates were the predominant catch in all bottom trawls (nearshore and offshore) with about 3 times greater biomass than fish.