

SHELFZ

(Shelf Habitat and Ecology of Fish and Zooplankton)

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OBJECTIVE

- Collect baseline data and compare Arctic fish habitat and distribution in nearshore and offshore environments.

Offshore > 20 m isobath
Nearshore < 20 m isobath

Figure 1: Map showing study area with transects 1 through 6 and station locations, survey dates 17 August-5 September, 2013

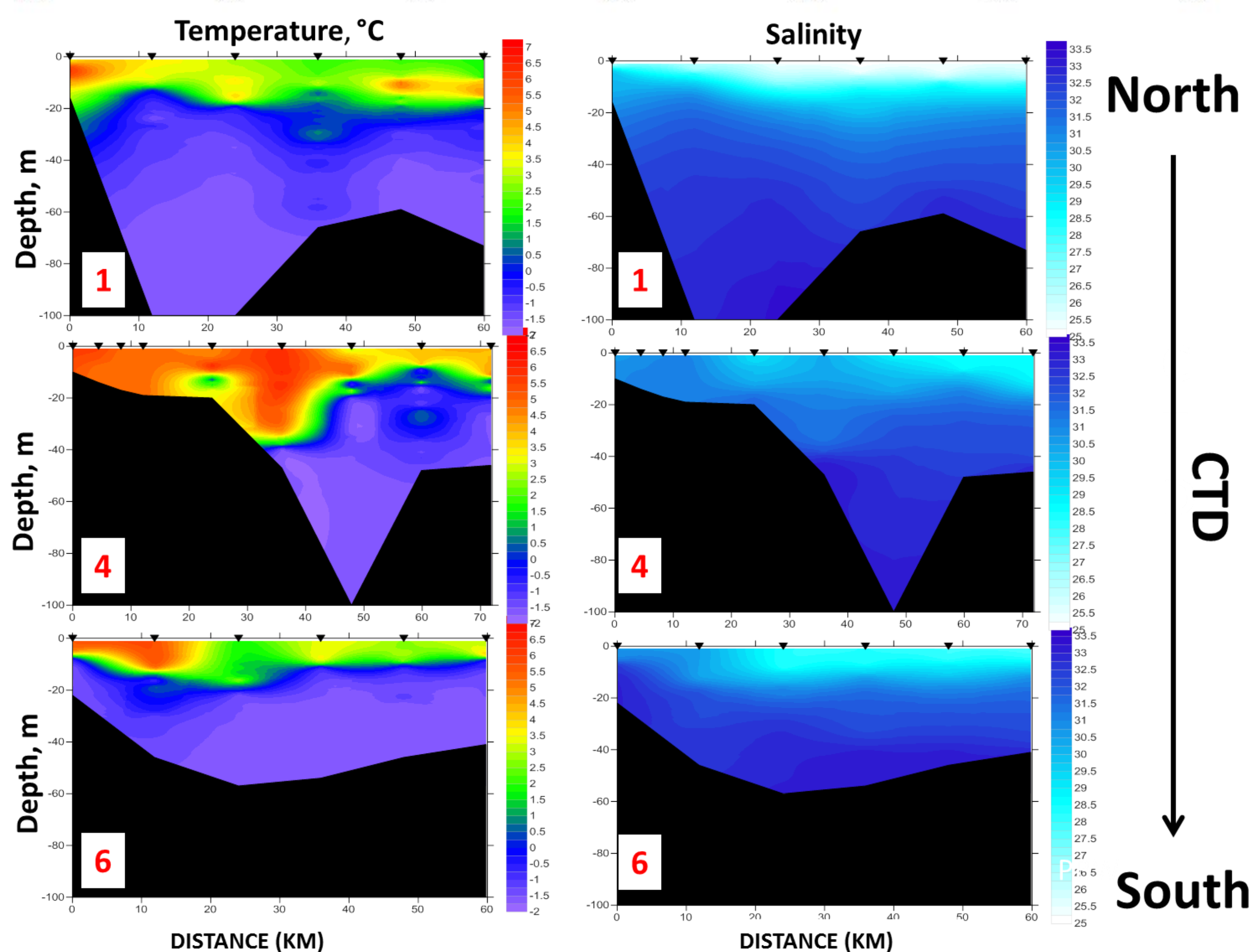
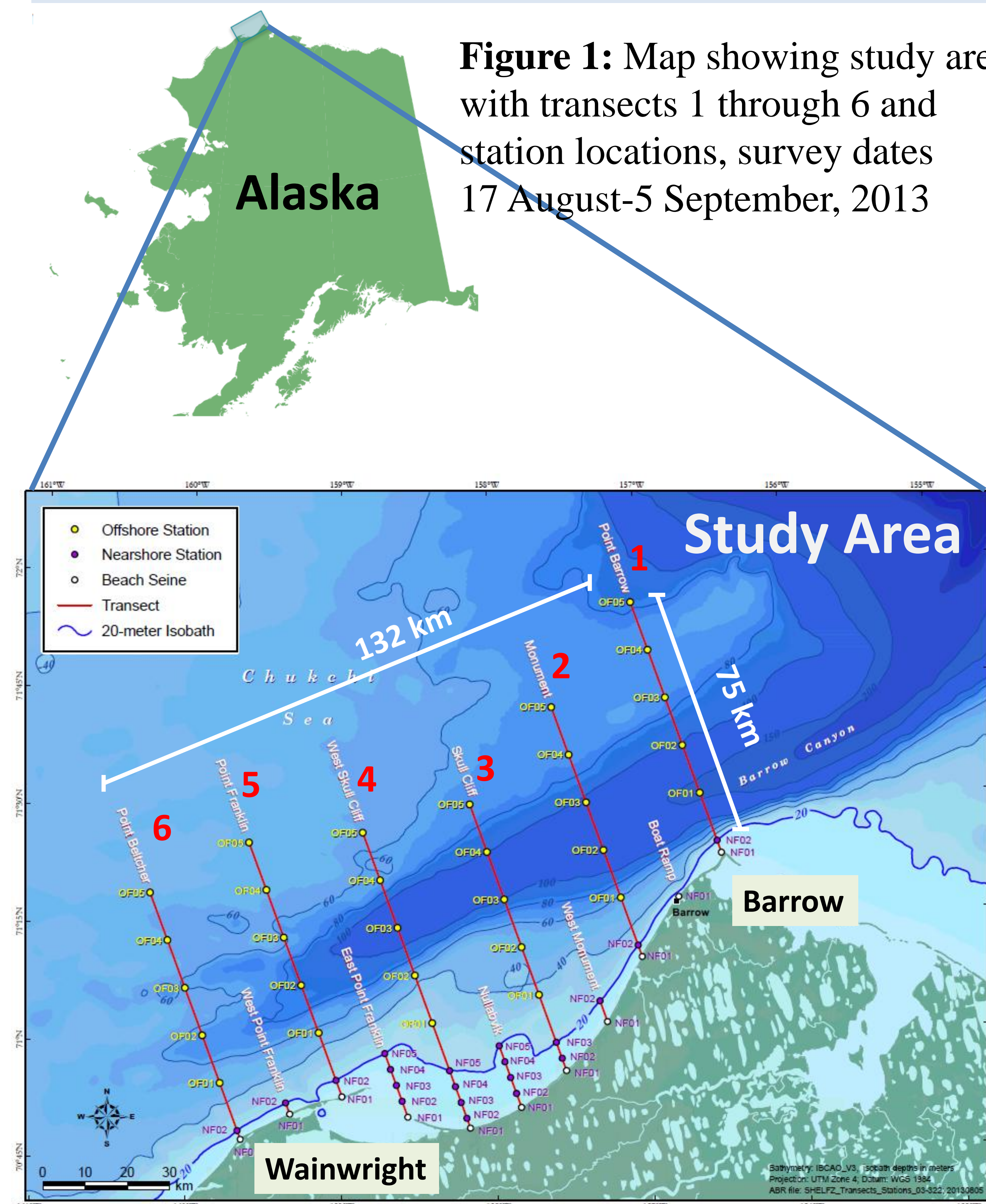


Figure 2: Temperature and salinity contours from transects 1, 4 and 6; black triangles represent CTD stations

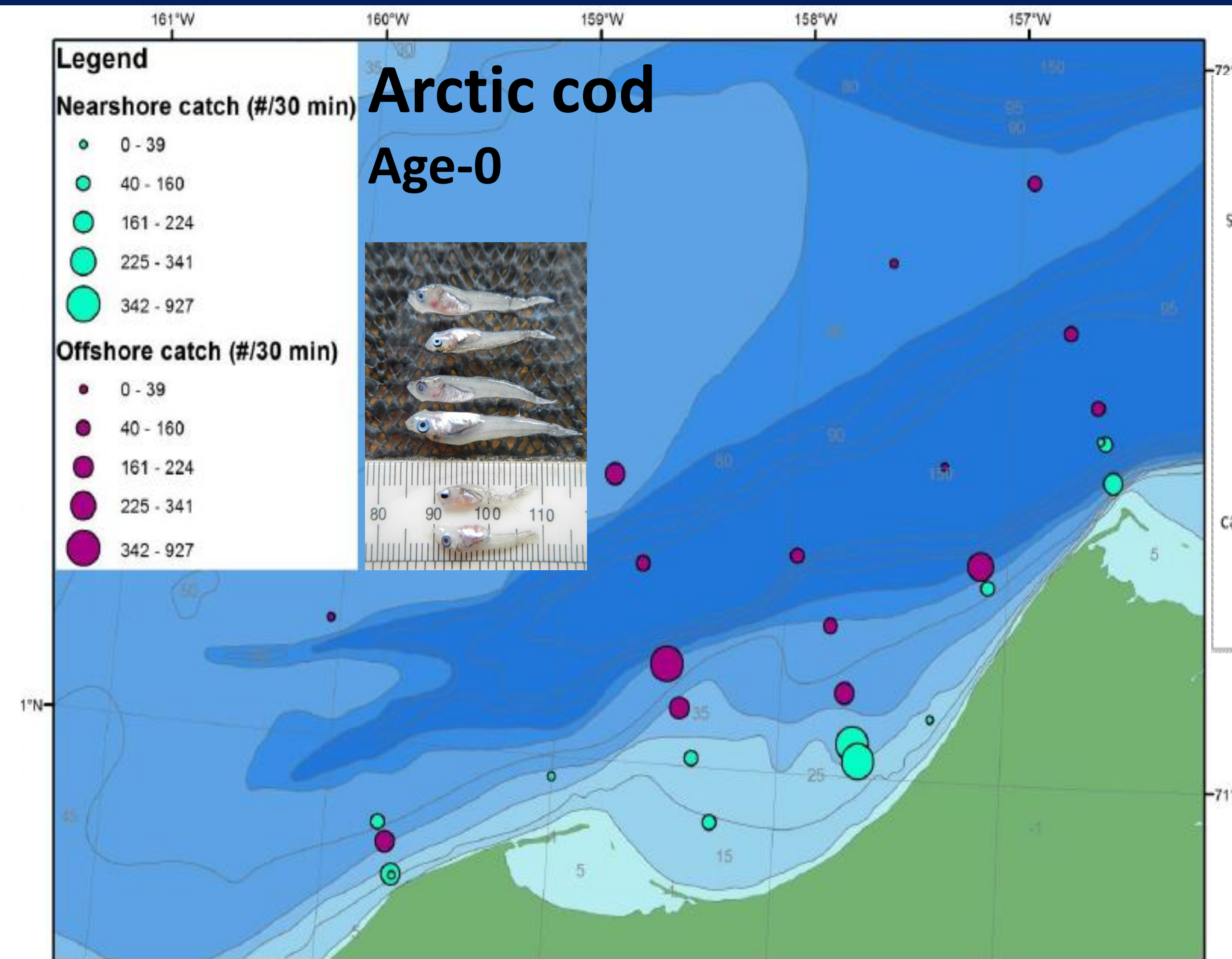


Figure 3: Midwater trawl catch of Arctic cod in offshore (> 20 m depth) and nearshore (< 20 m depth) habitats

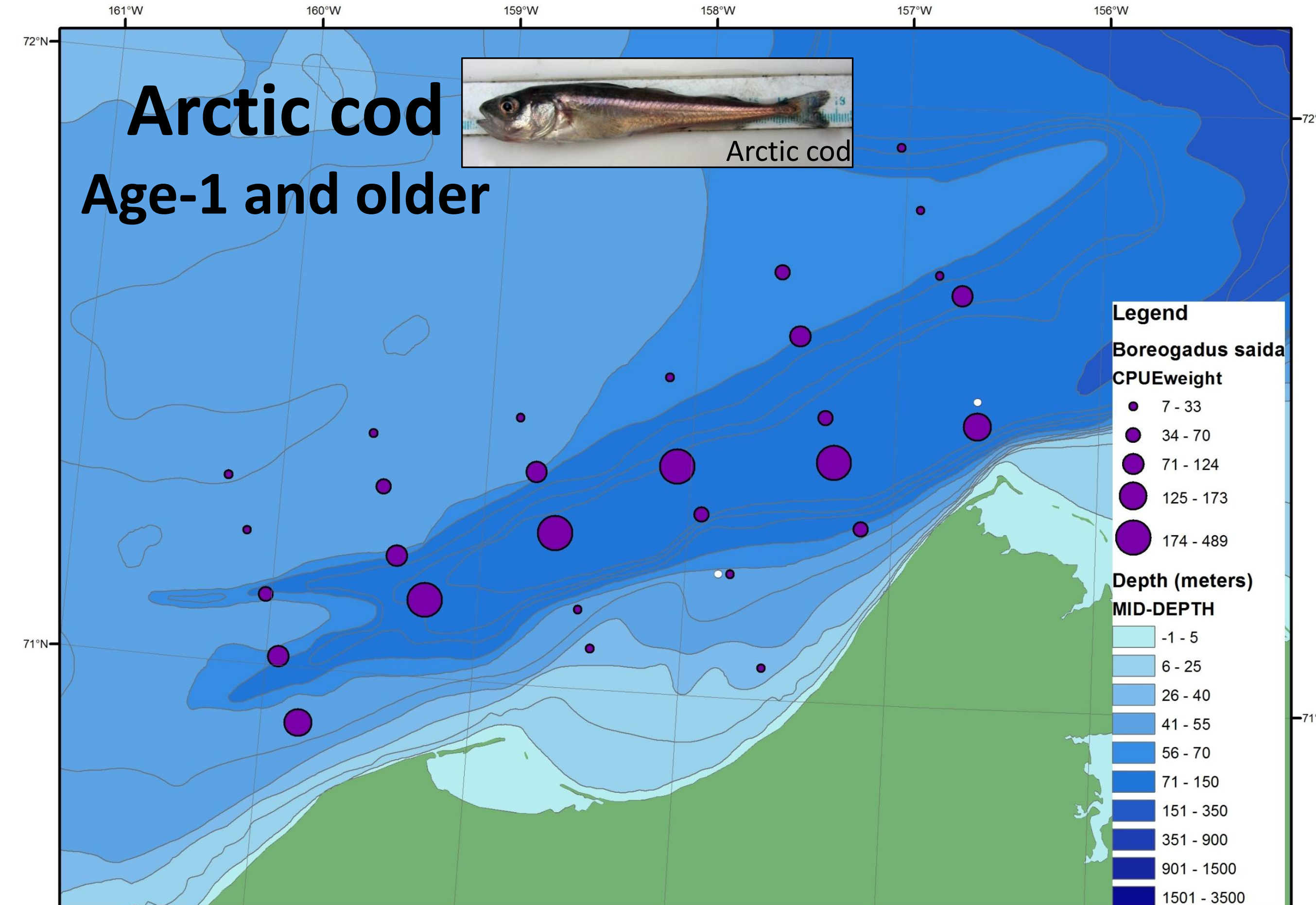


Figure 4: Bottom trawl catch of Arctic cod in offshore habitat (> 20 m depth)

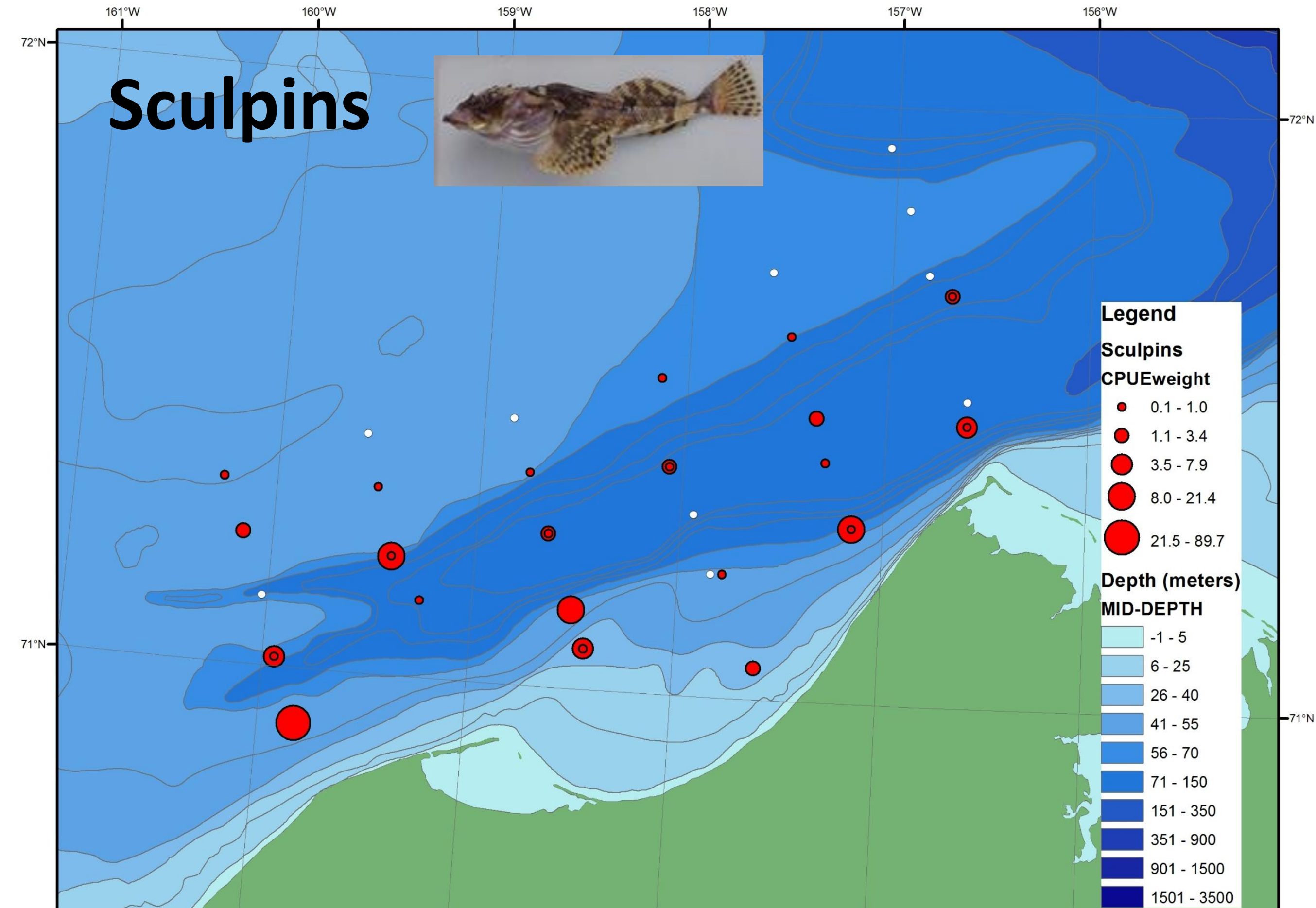


Figure 5: Bottom trawl catch of sculpins in offshore habitat (> 20 m depth)

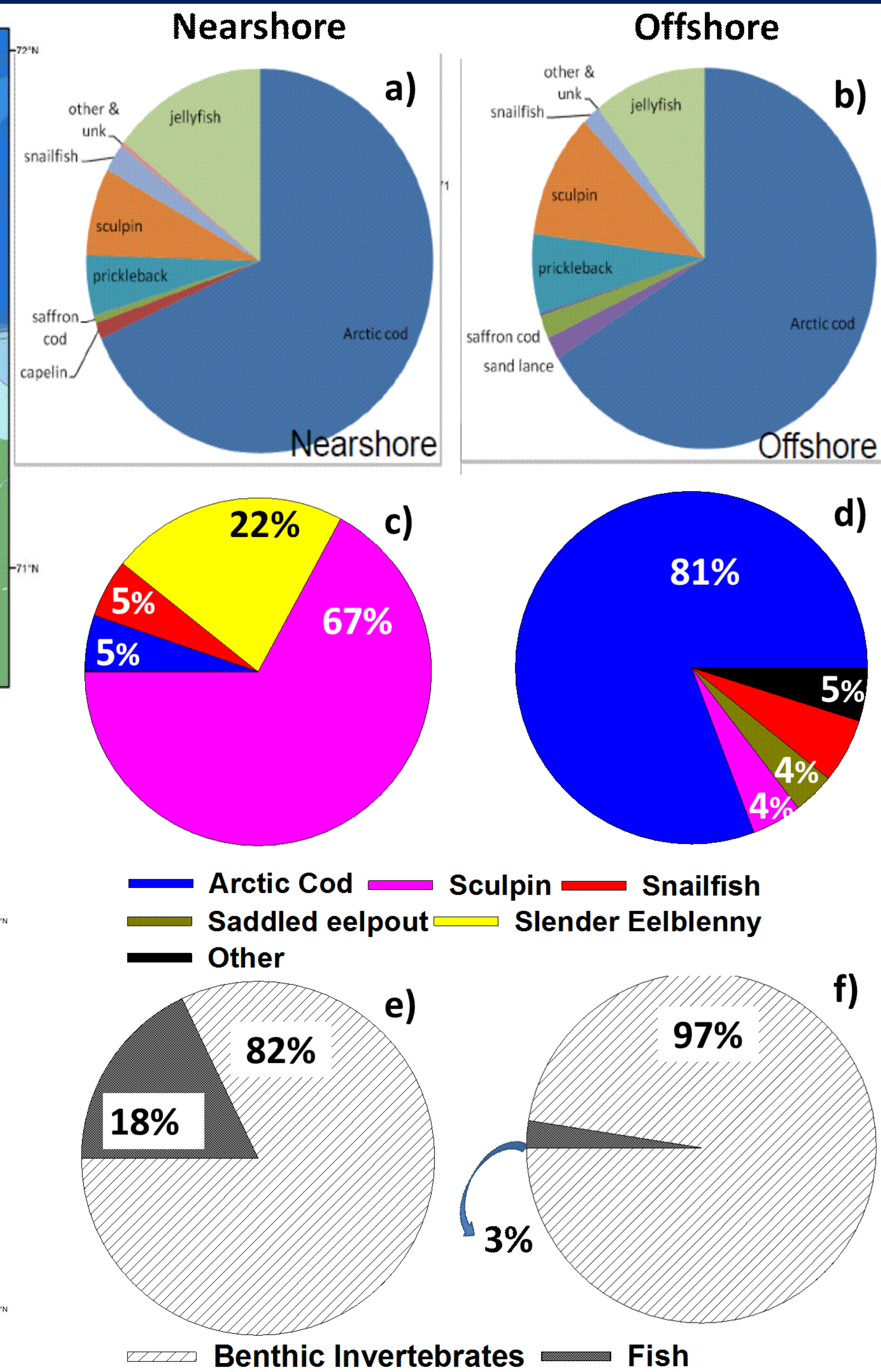


Figure 6: Percent species composition (kg) of midwater (a and b) and bottom trawl (c, d, e, f) catches in the nearshore (< 20 m depth) and offshore (> 20 m depth)

SUMMARY:

- This is the **first survey** in which fish and habitat data have been **concurrently** collected in the nearshore and offshore habitats along Alaska's Chukchi Sea coast.
- Pacific Water and Melt Water occurred in the upper 30 m while Winter Water occurred in > 30 m depth.
- 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 bottom trawls (offshore).
- Sculpins were the predominant fish caught in nearshore bottom trawls
- Invertebrates were the predominant catch in bottom trawls (nearshore and offshore) ~ 3X greater biomass than fish.

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