

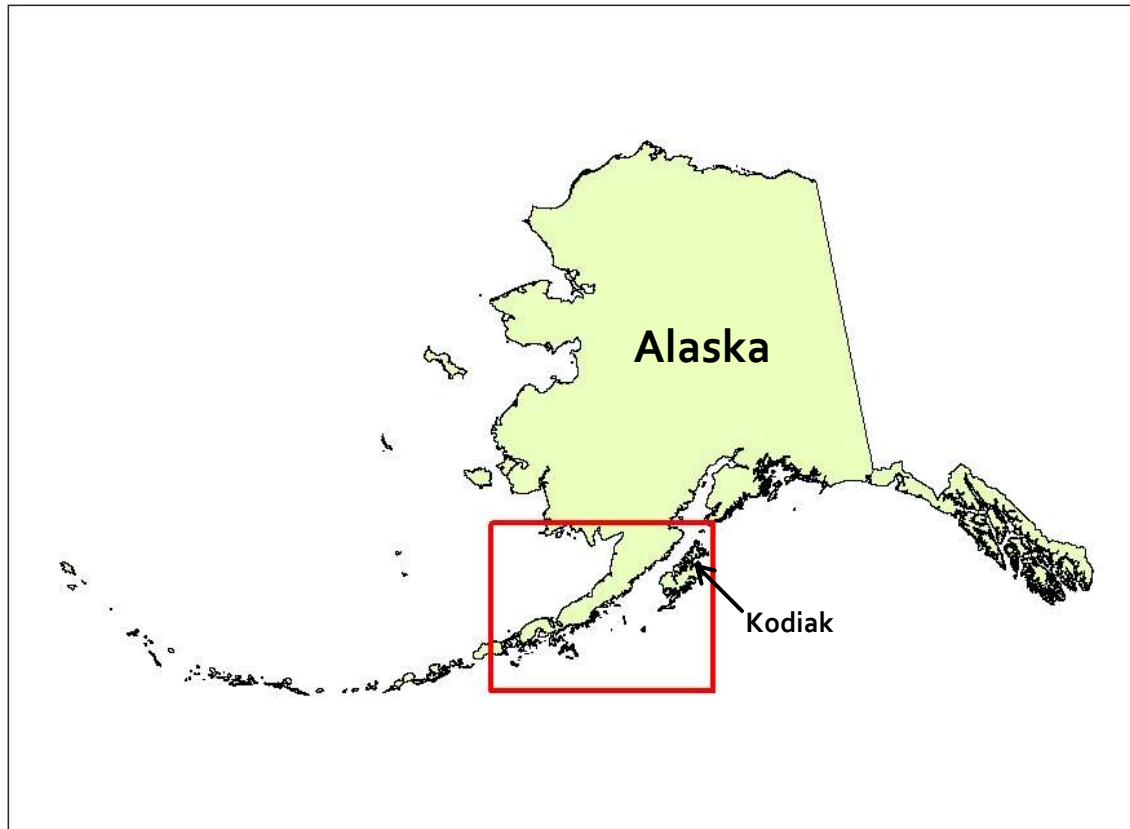


Aaren Ellsworth – Alaska Department of Fish and Game

Small-mesh shrimp and forage fish trawl survey in the Gulf of Alaska

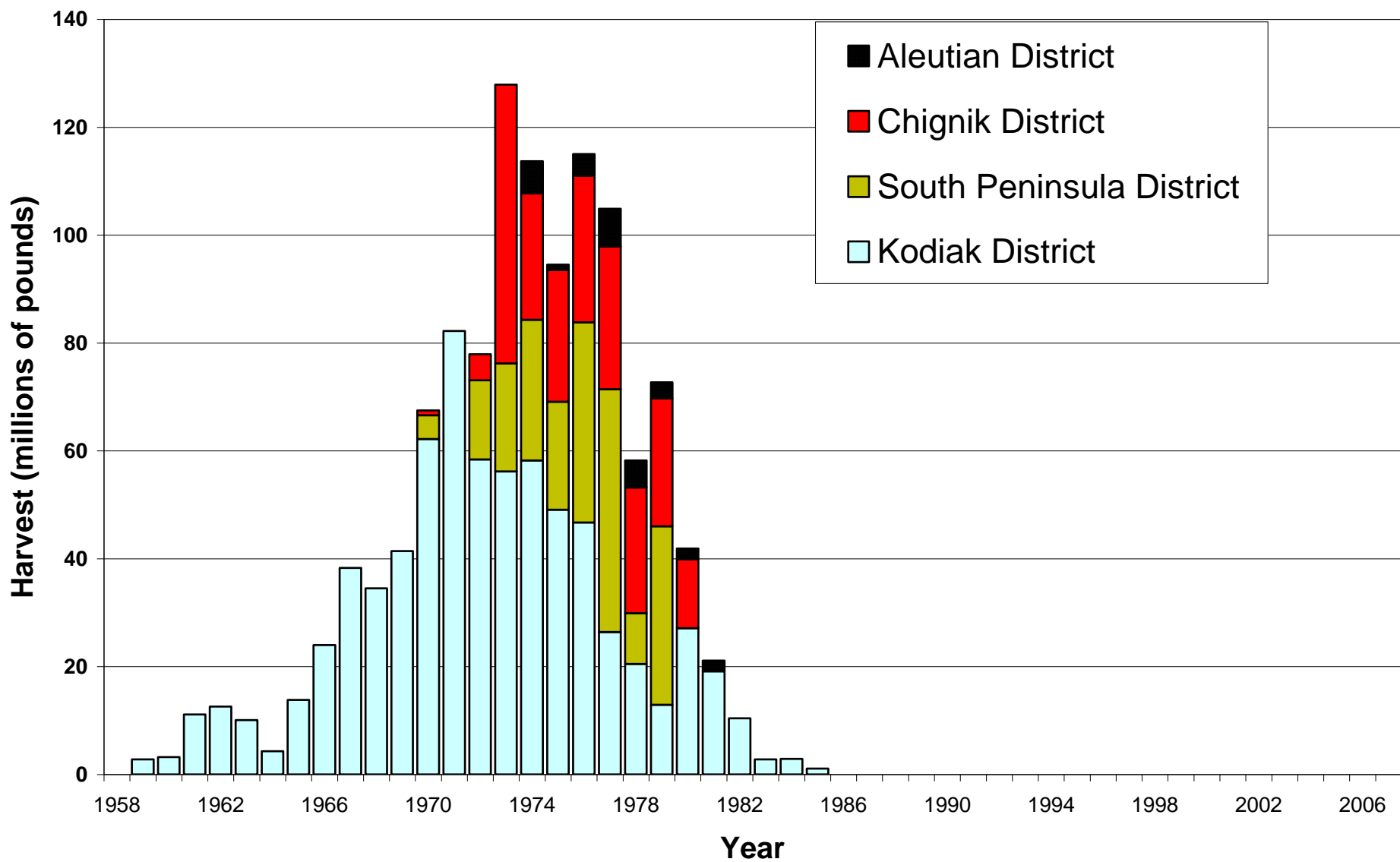


Survey location

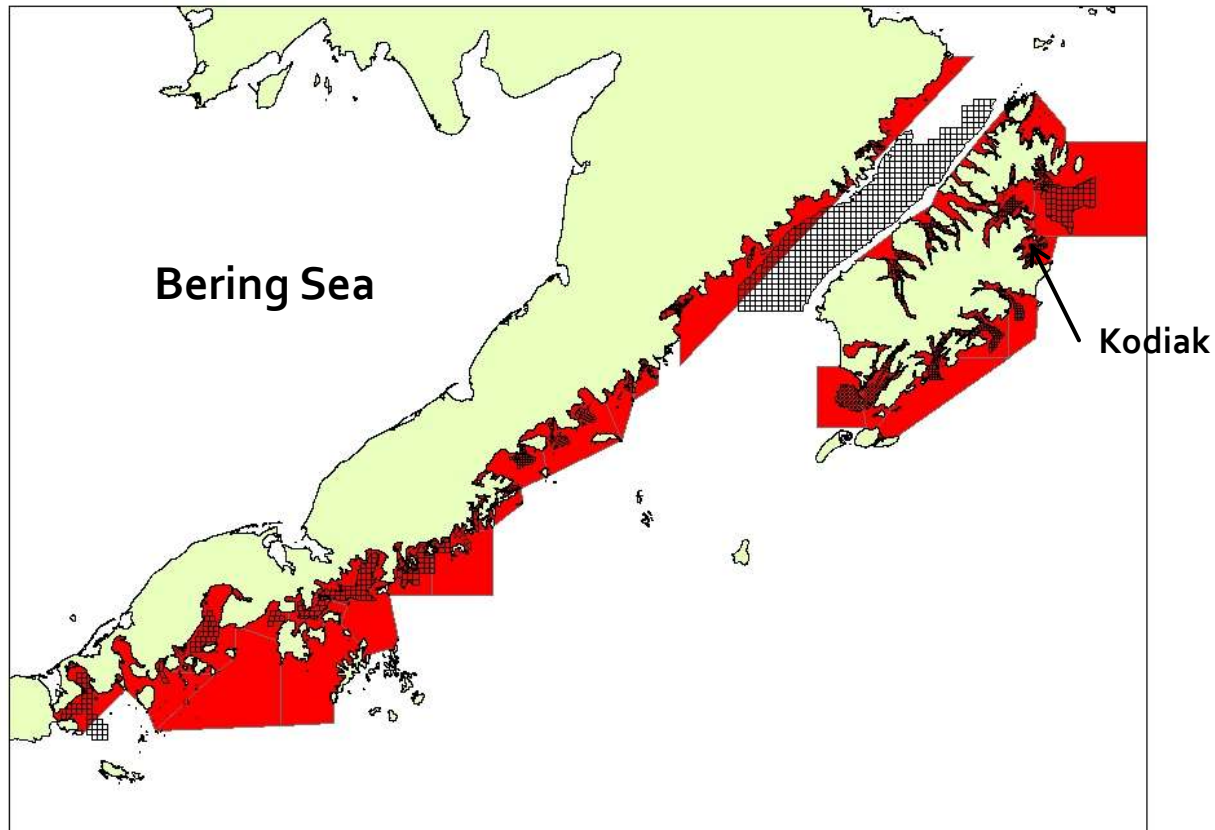


Survey Objectives

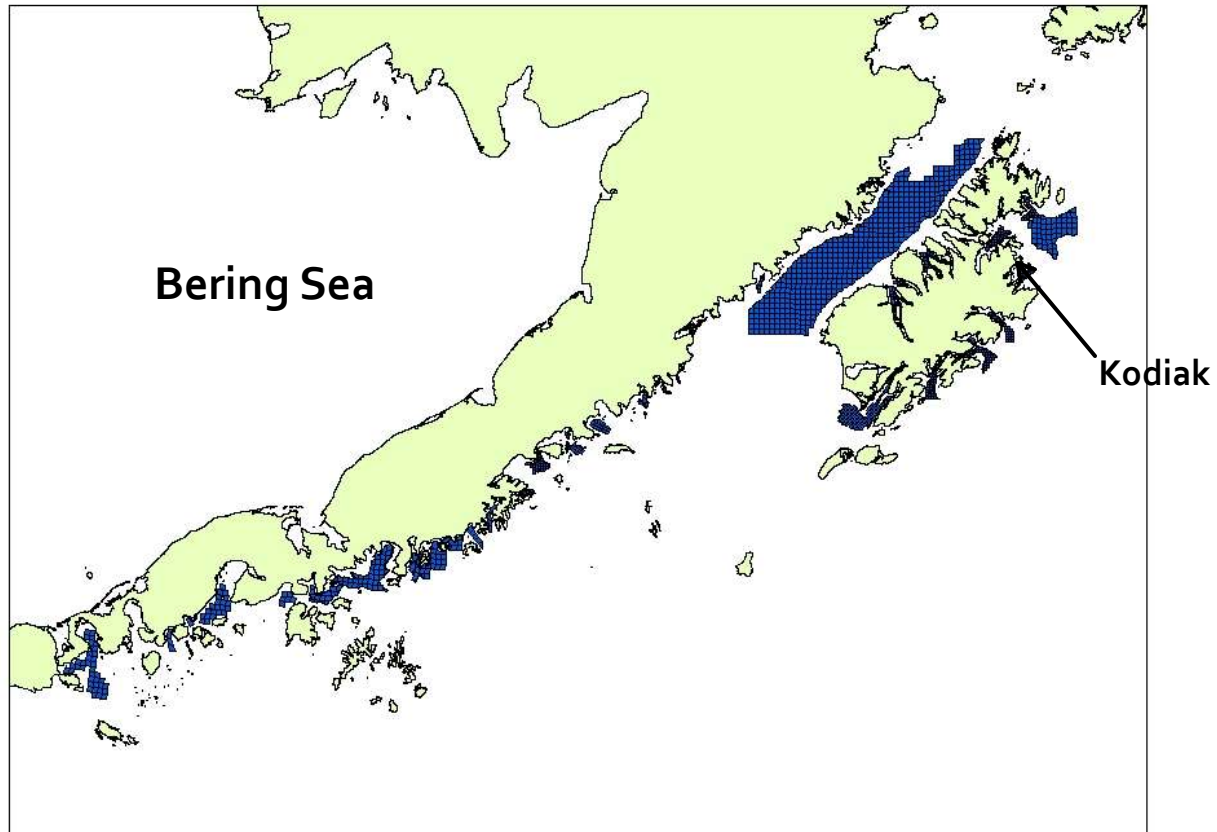
- Compare relative abundance of shrimp to recent and historic survey data to make inferences about population trends.
- Determine species composition of the catch by haul and survey area.
- Obtain length frequency distributions for commercially important shrimp and fish species.
- Obtain composite samples of predominate shrimp species for each bay surveyed and analyze each sample for sex and length frequency.
- Generate density estimates for forage fish species from the areas trawled.
- Collect stomachs from 7 species for NMFS.



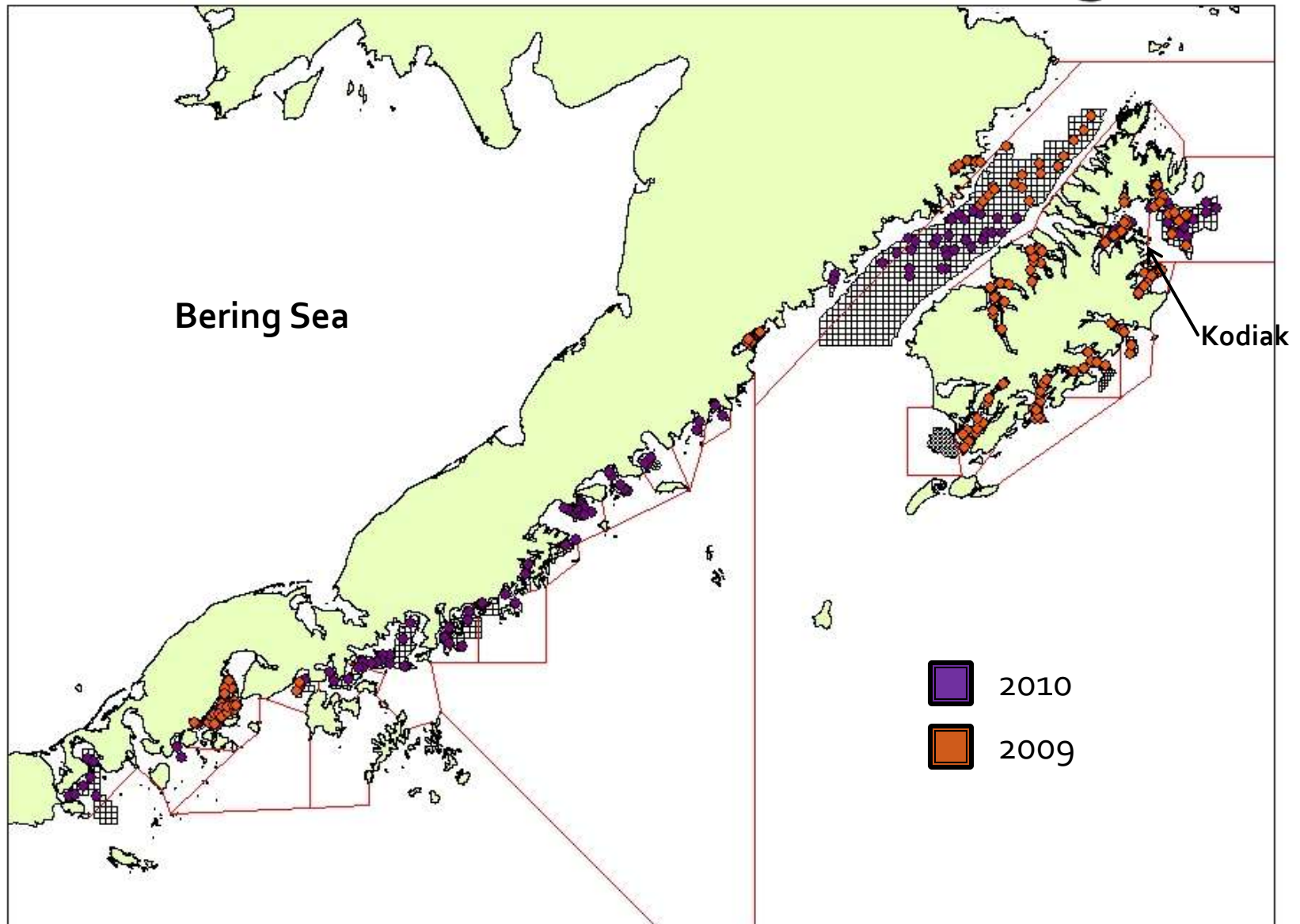
Closed shrimp fishing sections



Survey stations




Tow locations in 2010 and 2009



R/V Resolution



- 
- 18.7 m footrope
 - 17 m tickler chain
 - 17 cm drop chains
 - 3.1 cm stretch mesh
 - 9.8 x 4 m opening

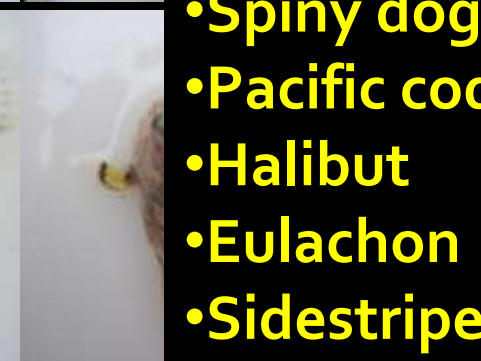
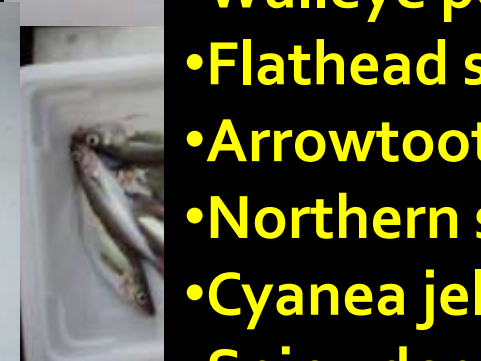




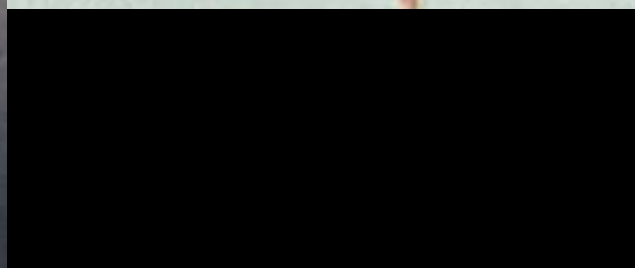
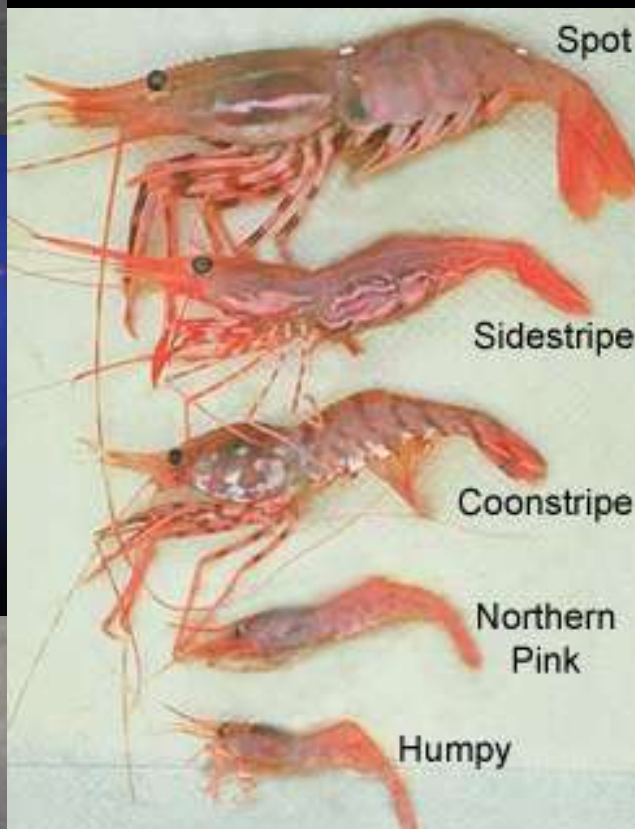
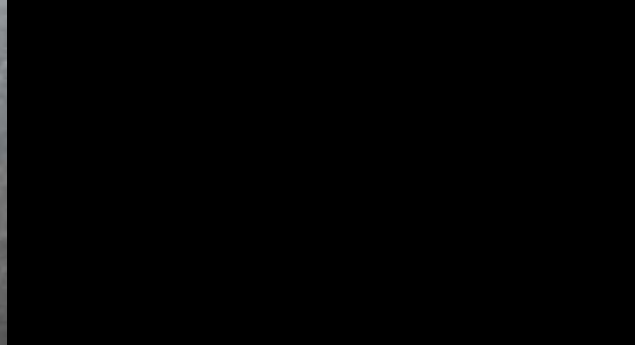








- Walleye pollock
- Flathead sole
- Arrowtooth flounder
- Northern shrimp
- Cyanea jellyfish
- Spiny dogfish
- Pacific cod
- Halibut
- Eulachon
- Sidestripe shrimp
- Yellowfin sole

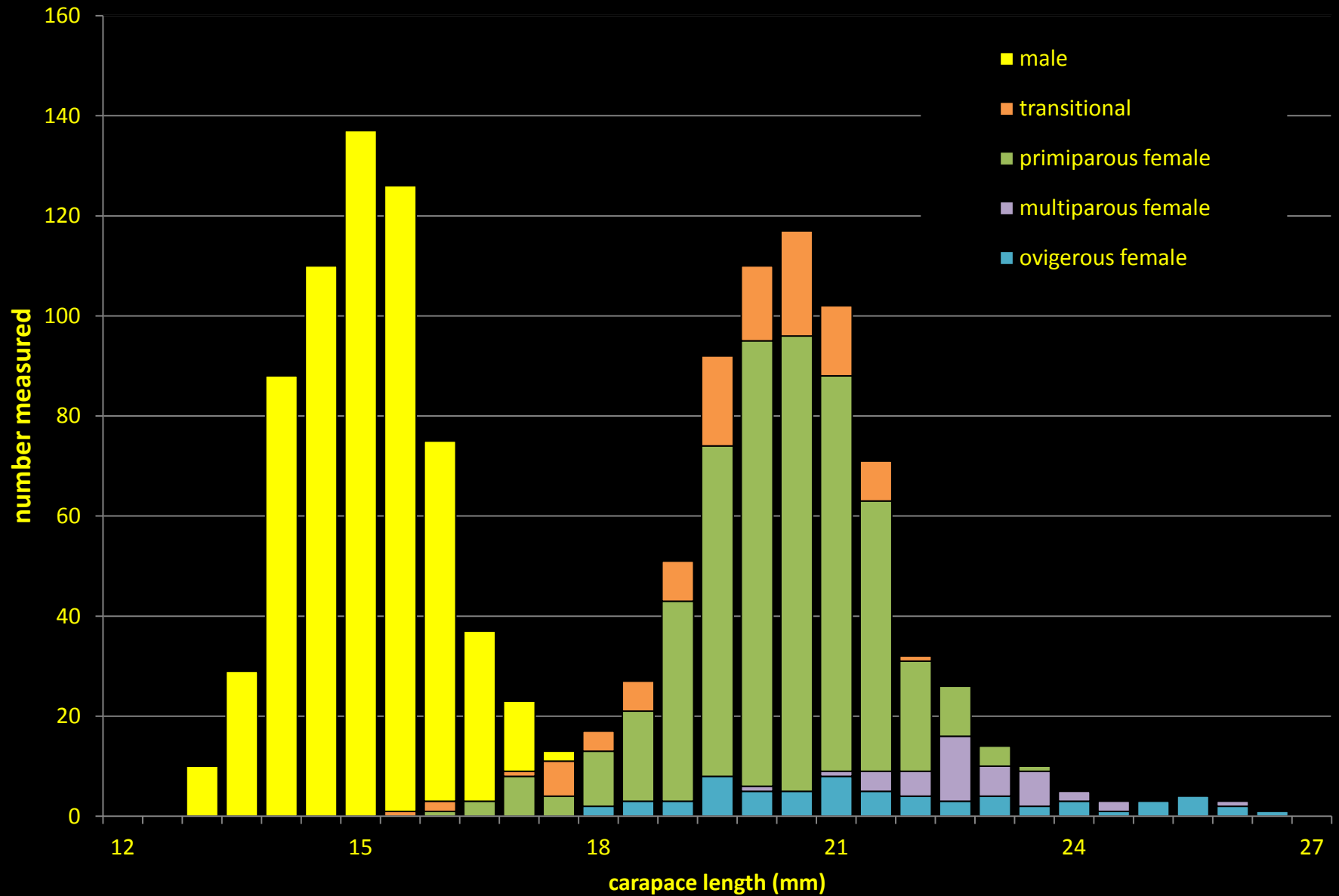


Shrimp measurement





Marmot Island



Trawl survey catch over time

Grouped Species Proportion, 1974-2006

