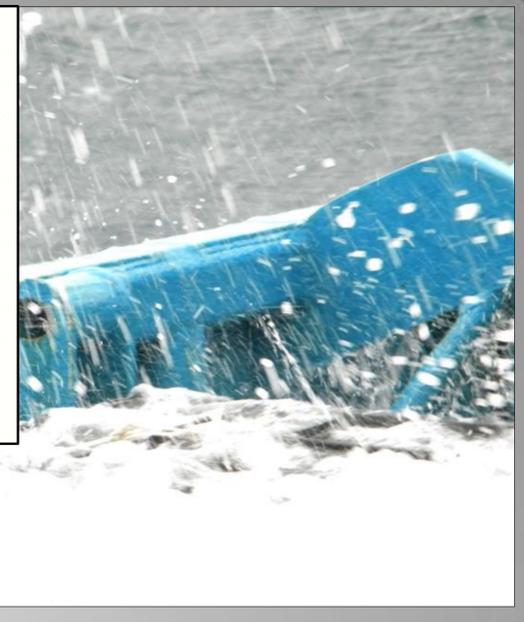


Diet Composition and Feeding Behavior of Juvenile Salmon in the Northern Bering Sea August–October, 2009–2011

Mary E. A. Cook and Molly V. Sturdevant



SUMMARY

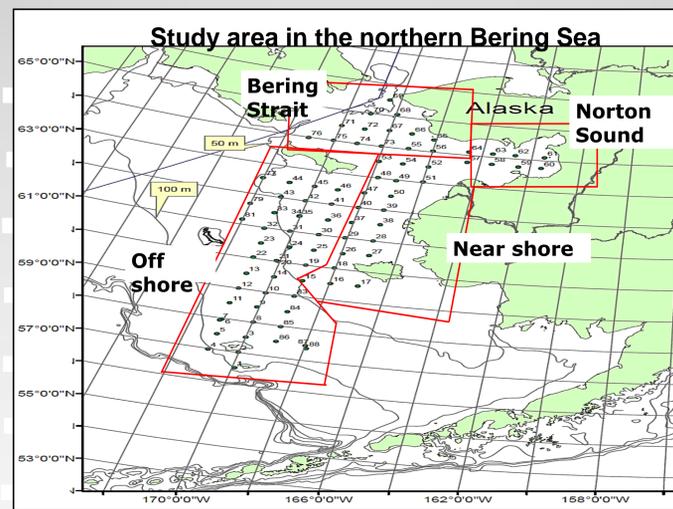
The Bering-Aleutian Salmon International Survey (BASIS) analyzed diets of five species of juvenile Pacific salmon in the northern Bering Sea. Prey were identified, weighed, and enumerated from four different regions (Near shore, Norton Sound, Bering Strait, and Off shore) in 2009-2011 to assess food resources used for production, growth and association with salmon early marine survival during a period of climate change.

OBJECTIVES

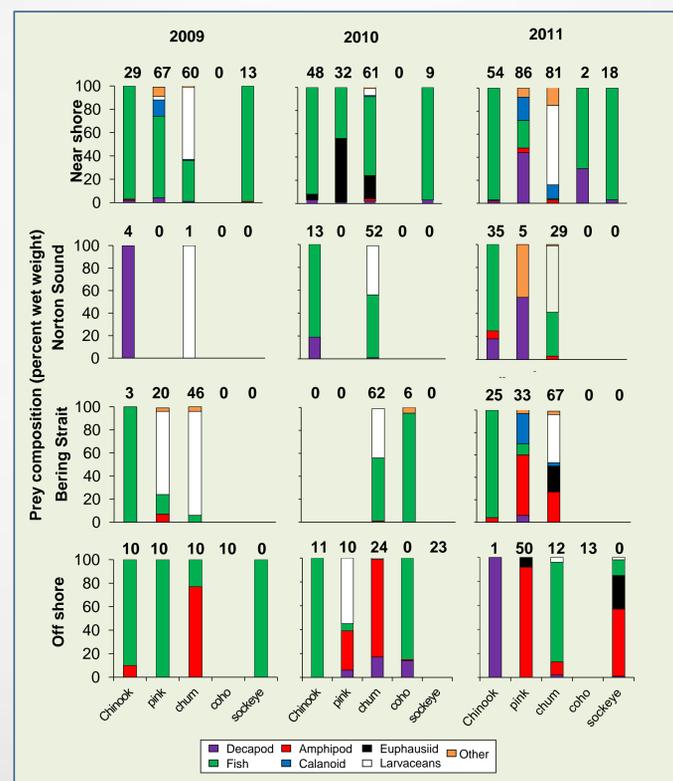
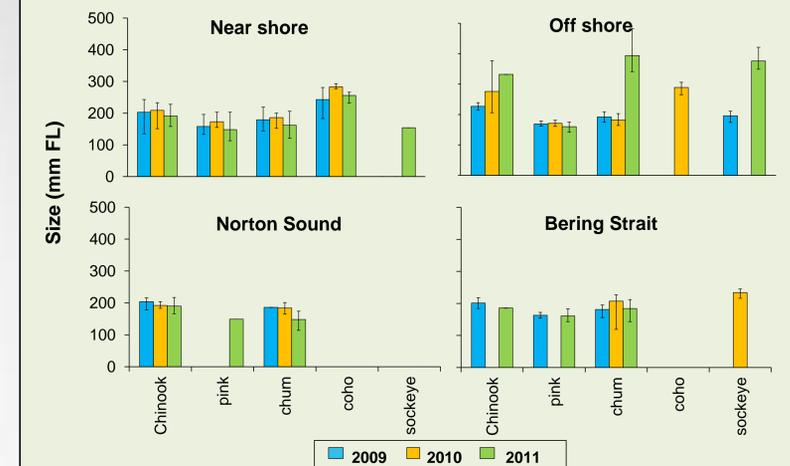
- *Identify prey types important to juvenile salmon
- *Assess diel feeding rhythms
- *Compare trophic relationships among species and regions

METHODS

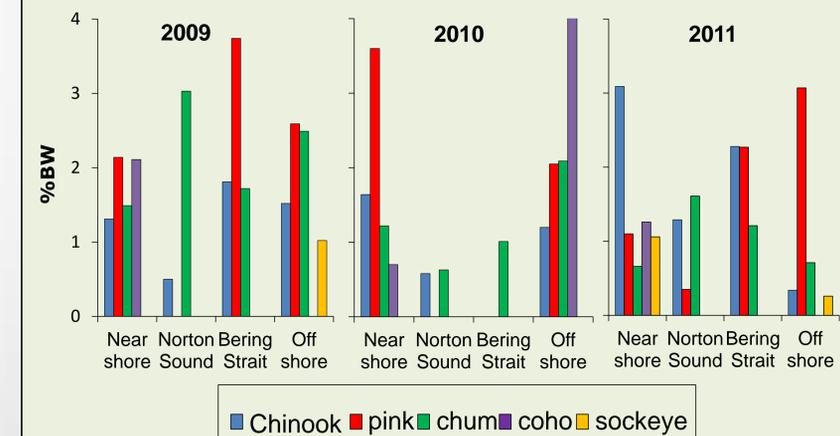
- *Fish collected with surface trawls
- *Stomach content analysis by pooled species
- *Indices derived: prey composition (%weight by categories), stomach fullness (%BW), multivariate trophic relationships



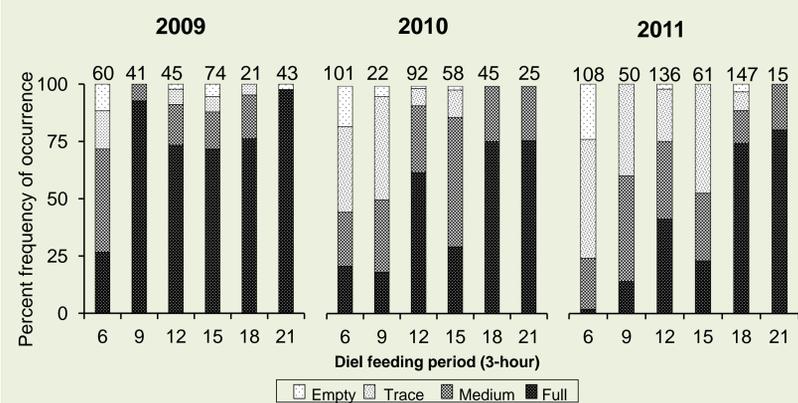
Juvenile salmon size by region



Feeding intensity by region and year



Juvenile salmon diel feeding rhythm



CONCLUSIONS

- *Regional differences in diet composition
- *Fish were the principal prey in the near shore and off shore regions
- *Feeding intensity highest in morning and evening hours
- *Sockeye salmon feeding & behavior was the most varied among the species

Multivariate trophic relationships based on prey species SCI

