

3-3. Feeding Habits and Trophic Interaction (Oral-23)

A Comparison of Jellyfish Distribution to Oceanographic Characteristics and Salmon Distributions during a Warm Year (2004) and a Cold Year (2006) in the Eastern Bering Sea

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On the eastern Bering Sea shelf, spring SST was lower, ice retreat was later and the cold pool was located further south in 2006 (cold year) compared to 2004 (warm year). Overall, fall forage fish catches were also lower in 2006 compared to 2004. A group that may be especially responsive to this climatic variation is jellyfish. The BASIS (Bering Aleutian Salmon International Survey) survey was used as a platform for estimating biomass, distribution, and size frequency of large medusae caught in surface trawls during late summer/early fall. Six species were identified from the surface trawls; *Aequorea* sp., *Chrysaora melanaster*, *Cyanea capillata*, *Staurophora mertensi*, *Aurelia labiata*, and *Phallocephora camstichatica*. Each species was compared to water mass characteristics (salinity, temperature, chlorophyll at 5 m, and water column stability) and fish catches (juvenile and adult chum salmon, *Oncorhynchus keta*, and sockeye salmon, *O. nerka*) using cumulative frequency distribution plots which look at frequency of association to different parameters in terms of percent catch of jellyfish species. A clear difference is observed in the distributions and biomass of the six jellyfish species in response to the various conditions in the warm year versus cold year. All but one jellyfish species had lower biomass in the cold compared to the warm year.