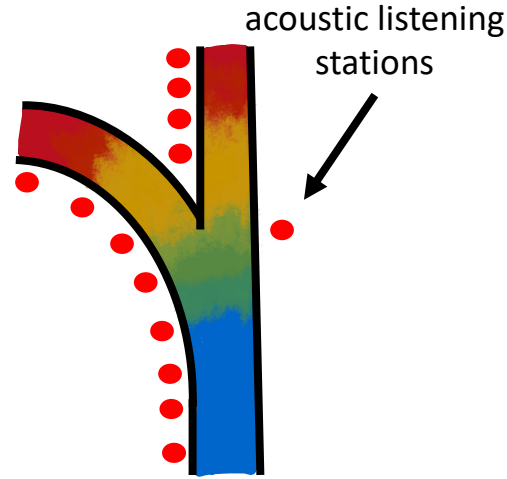
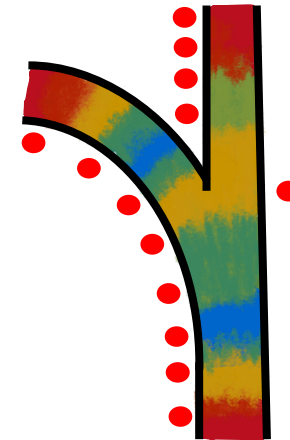


Are Habitat Variability Factors like Water Quality Important for Salmon Survival? Four Competing Hypotheses



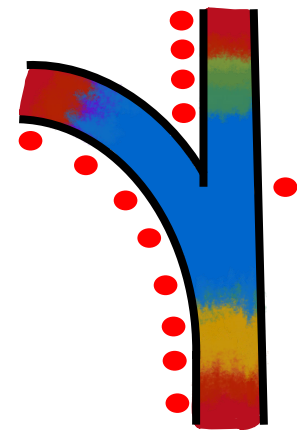
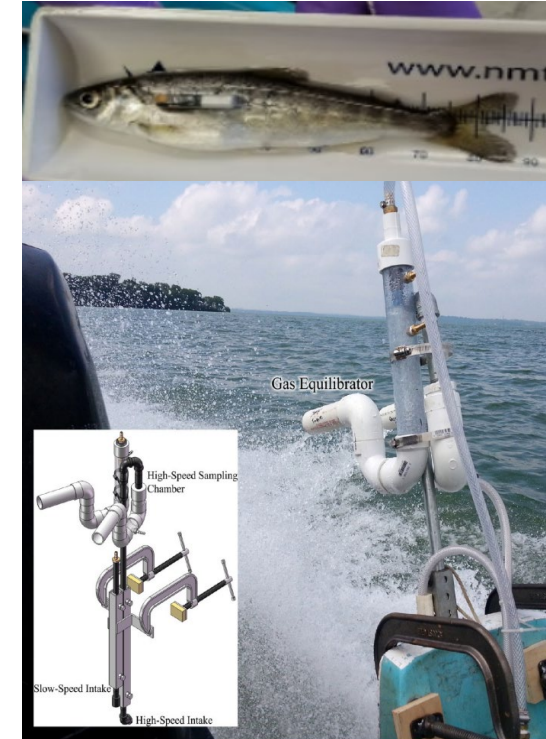
Survival only dependent on distance traveled

Water quality matters!
Warm temperatures best distinguish regions with low juvenile survival



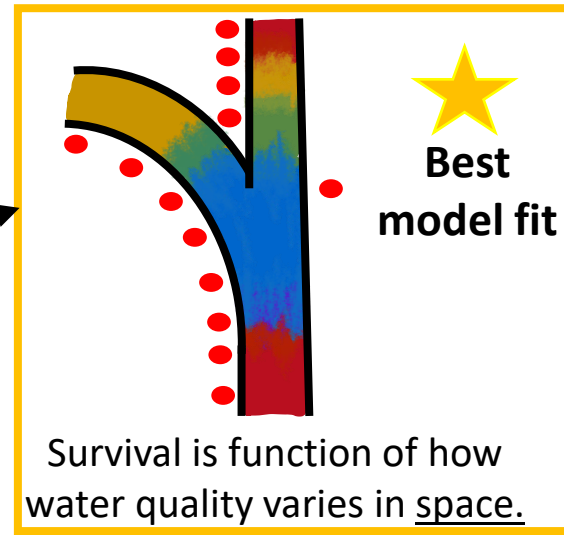
Survival varies in a way not explained by measurements

Advancements in acoustic tagging and boat mounted water quality measurements made it possible for improved model hypothesis testing



Survival is function of how water quality varies in time.

Survival-rate "clusters" are regions with similar water quality



Survival is function of how water quality varies in space.



Chinook Salmon (juvenile) Photo Credit: Gabriel Singer

Fast limnology automated measurement (FLAME) platform Photo Credit: Crawford et. al. 2014 dx.doi.org/10.1021/es504773x