

Predation

1. Studies must sample predators when and where there are actually prey of concern. So one must know when and where (on a daily time step) the salmonids are, if one wants to study salmonid consumption by striped bass. For example, catches at Knights Landing RST can go from a few salmon one day, to thousands the next day. How does this affect predation, or how does predation affect this? Predation should be studied on both days when there are salmon being caught in the RST for examples, and when there are not. Being in the right place at the right time matters.
2. Assess all sizes of predators. Just because predators $< 150\text{mm}$ did not have juvenile salmonids in their stomach during one study does not mean that they never eat juvenile salmonids. The size of available prey matters. Were the juvenile salmonids in the system at the time of study 30mm or 100mm.
3. Hot spots. Yes the predators may be denser at hot spots, but that does not mean that hot spots are the most significant predation zones. The other hundred miles of river an individual juvenile salmon needs to navigate might also have significant predation impacts.
4. Help California managers understand animal behavior concepts related to predation. Optimal foraging theory. Cost benefit analysis. Selective feeding. Prey switching.
5. Smart Tags- We need tags that switch frequency or fail when exposed to stomach acid.