

Taneum Creek Coho/NTT Interactions



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Domestication

Predation



Dominance



Objectives

Natural Production

- Is Taneum Creek a good place for Coho?

Ecological Interactions

- How will trout respond to naturally produced coho?
- Will increased coho natural production have any negative effects on resident trout (growth or abundance) or will the nutrient benefits from stocking (carcasses) outweigh any potential negatives?

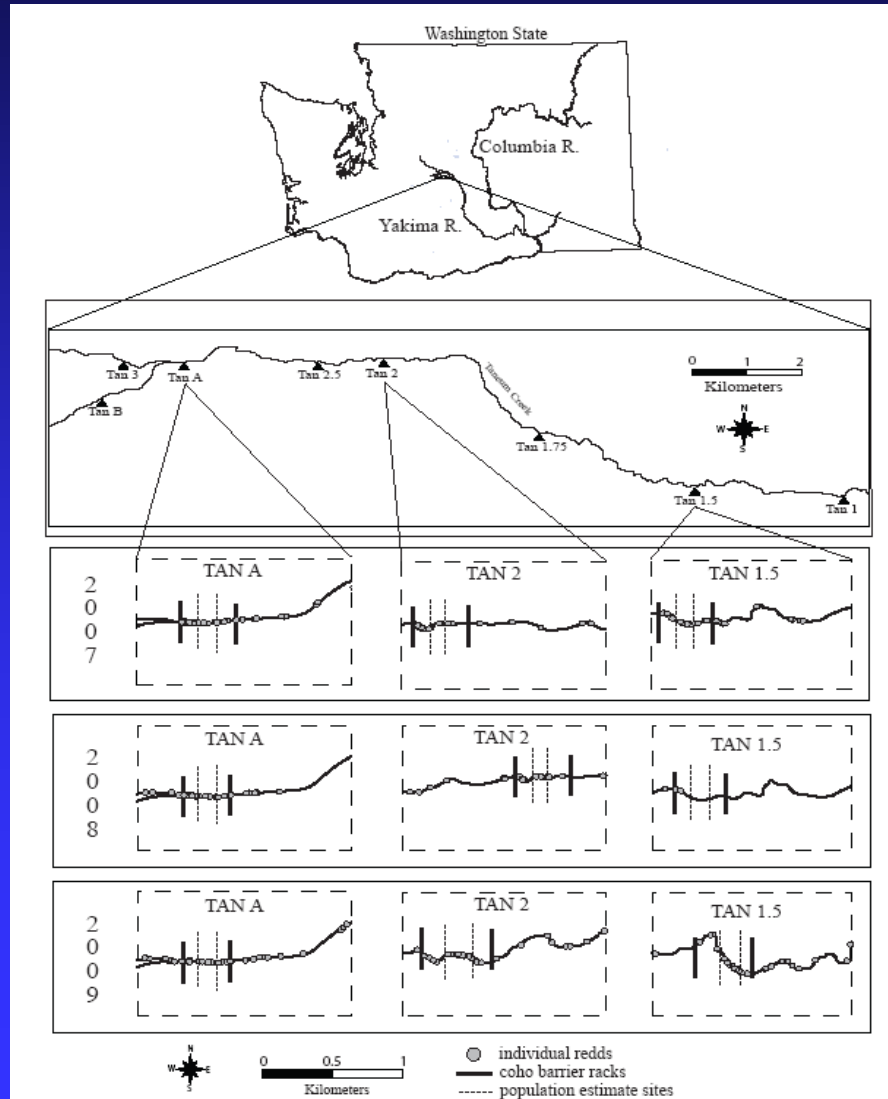
Possible Outcomes

- Combined biomass may increase with the addition of coho
- Combined biomass may remain the same if coho biomass replaces trout biomass
- Combined biomass may decrease if trout biomass is decreased as a result of coho introduction and coho are less efficient at utilizing resources

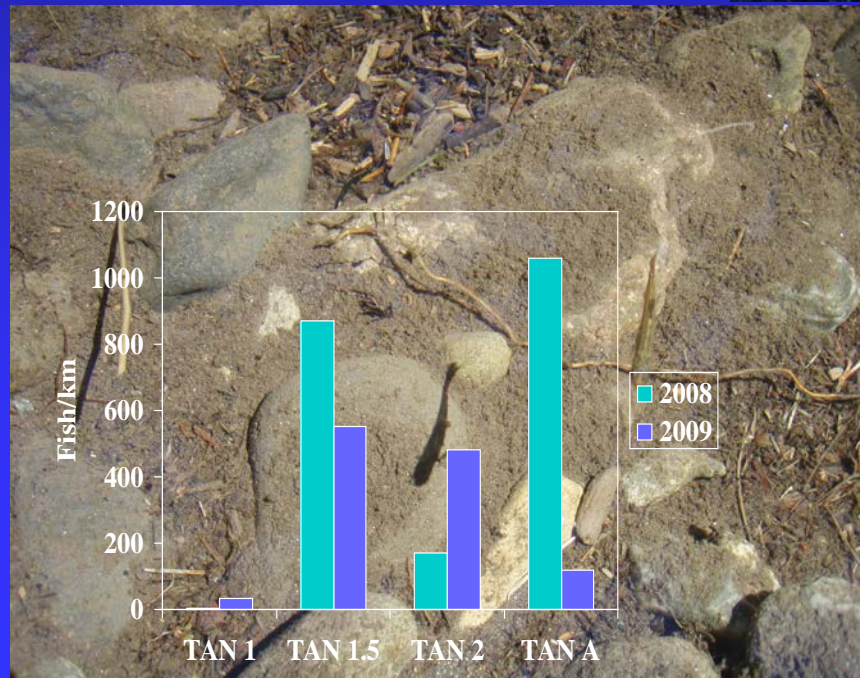
Coho Stocking



Annual Redd Distribution



Natural Production



PIT Tagged Smolts

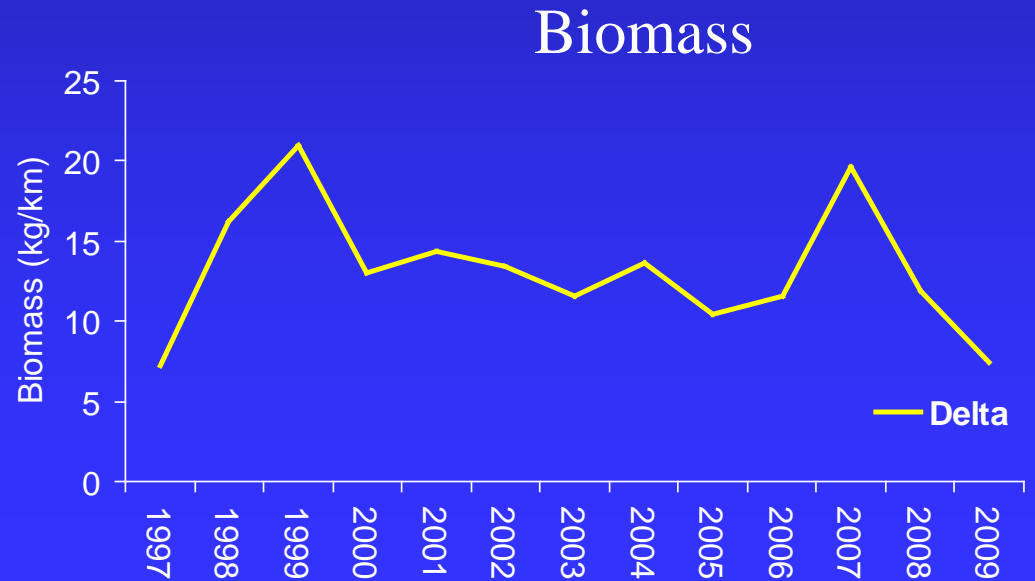
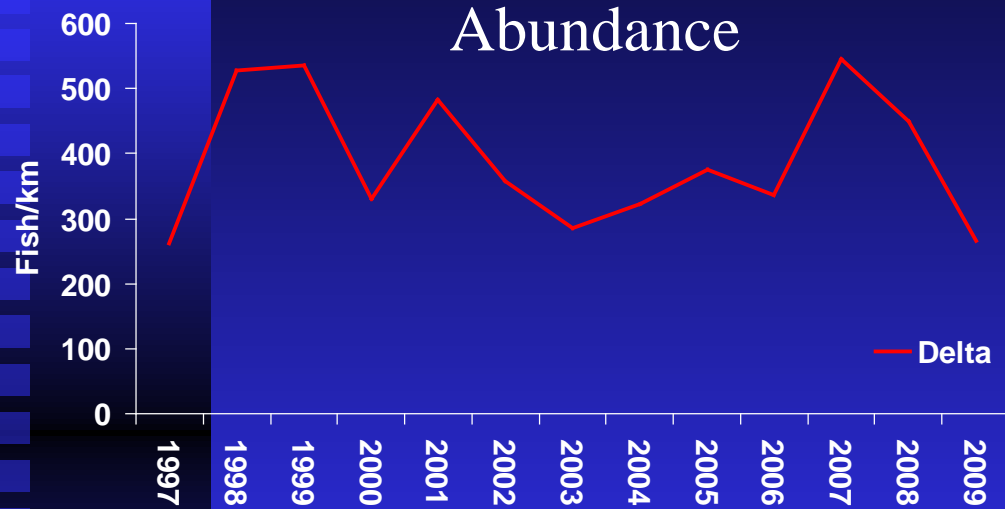
- Fall 2008- PIT tagged 1300 Taneum coho
- Fall 2009- PIT tagged 1870 Taneum coho



Ecological Interactions

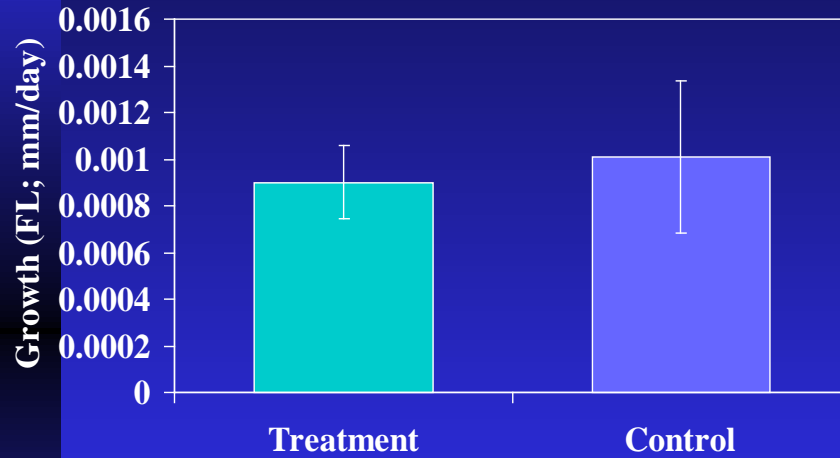
- Track changes in RBT abundance and biomass - BACI
- Monitor growth of PIT tagged RBT in areas with and without coho production
- Track changes in total combined biomass of salmonids - Ecological Efficiency
- Determine utilization of carcass material

Resident Trout Data - BACI

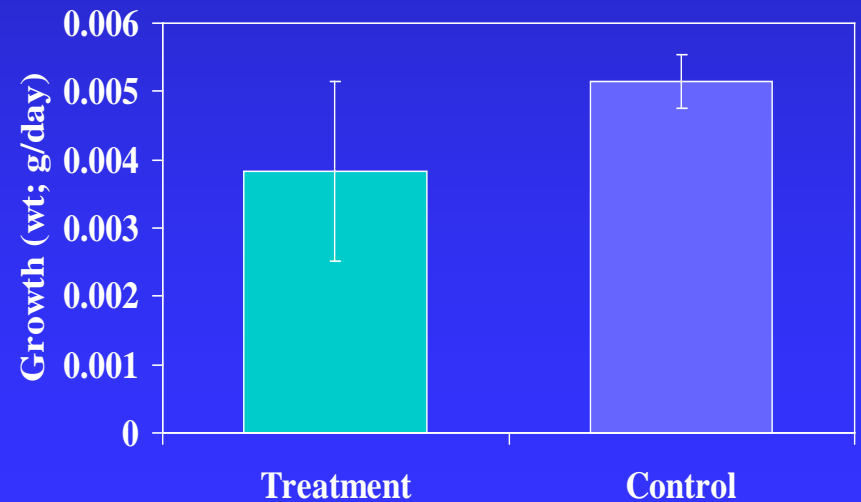


Trout Instantaneous Growth

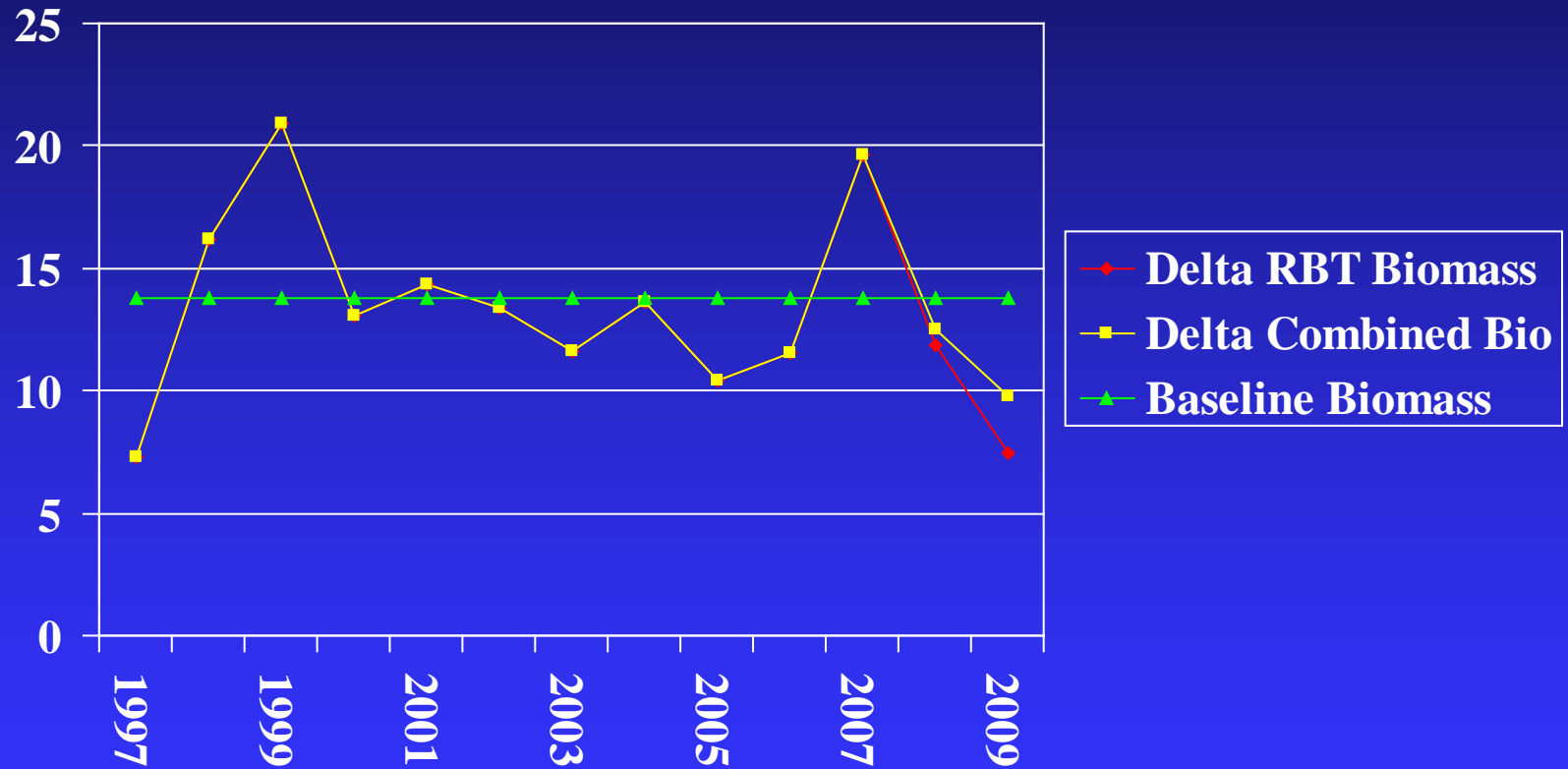
Length



Weight



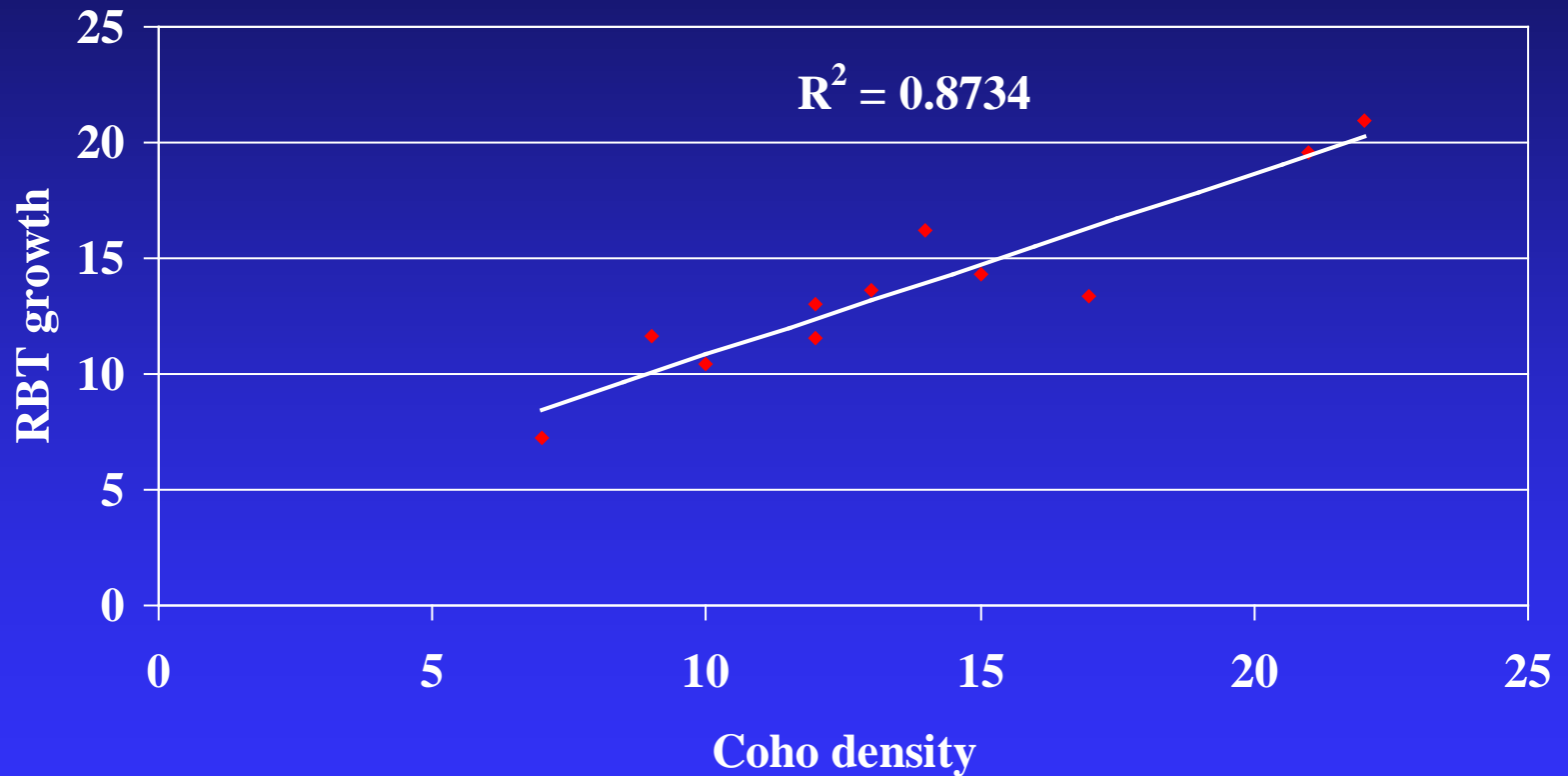
Biomass



Nutrient Benefit of Stocking



Causation



Theoretical – assume we found a significant increase in growth in the treatment sites

Preliminary Results

- No detectable change to NTT abundance, growth or biomass after 2 years of coho natural production.
- Increase in combined biomass although RBT biomass has been decreasing in treatments relative to controls.
- Will need several years of data to determine causation if an impact is determined.

Acknowledgements

- Bonneville Power Administration
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- Anyone else I missed