

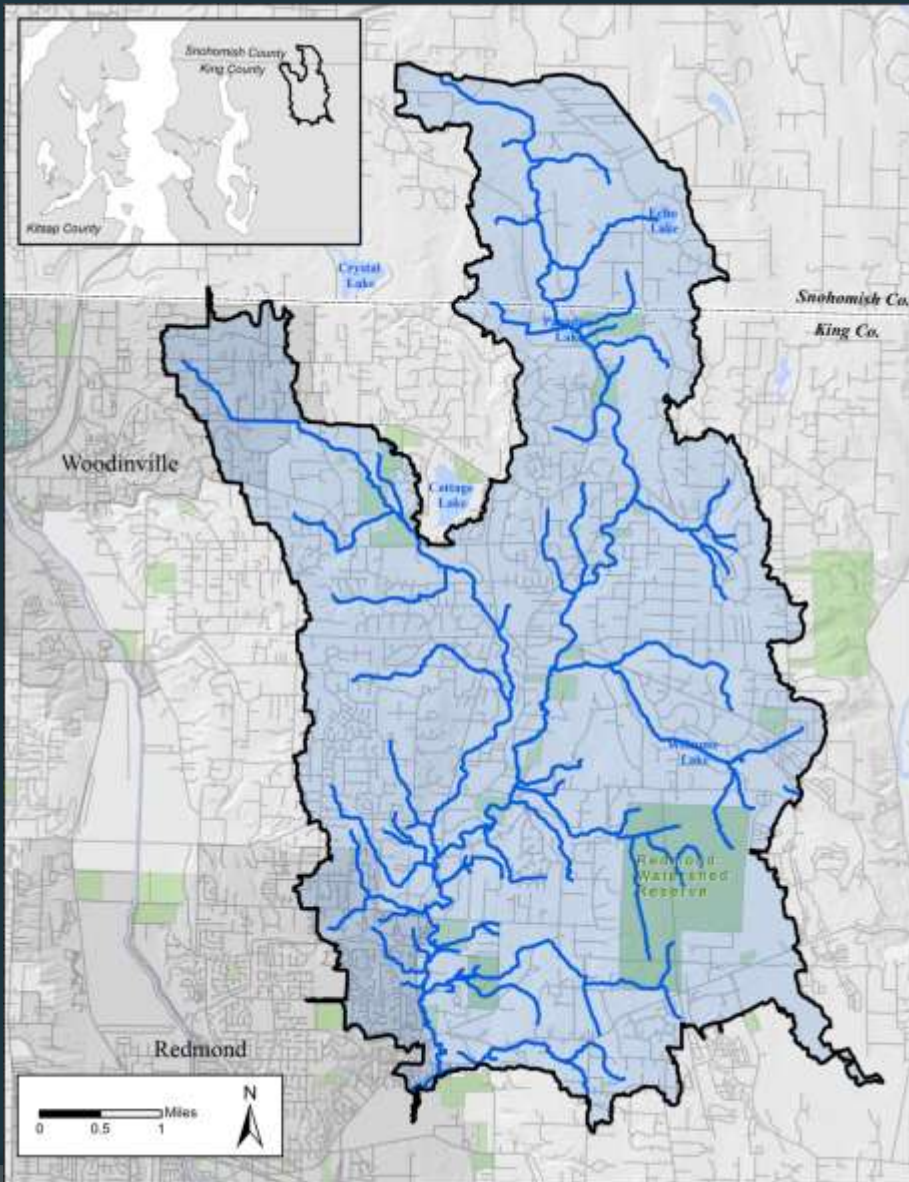
Juvenile Salmon Habitat Use in the Bear Creek Watershed



King County

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Bear Creek Watershed



- 6 salmonid species
- Bear Creek Watershed Stormwater Plan
- Habitat conditions and salmon use informs conservation strategies

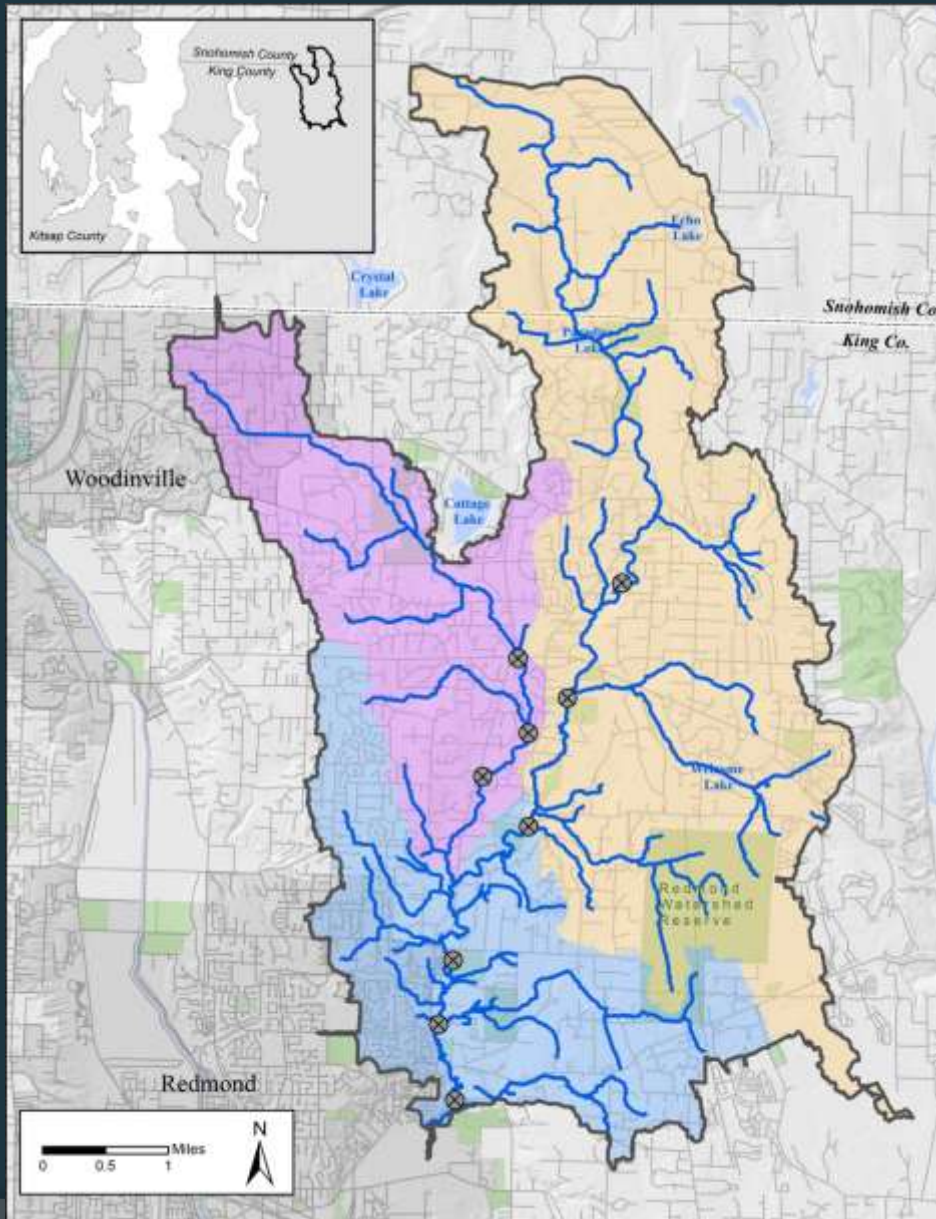


Study Objectives

- Characterize and map instream habitat types
- Sample habitat types for juvenile salmonids
- Evaluate juvenile salmon habitat use based on differences in relative abundance

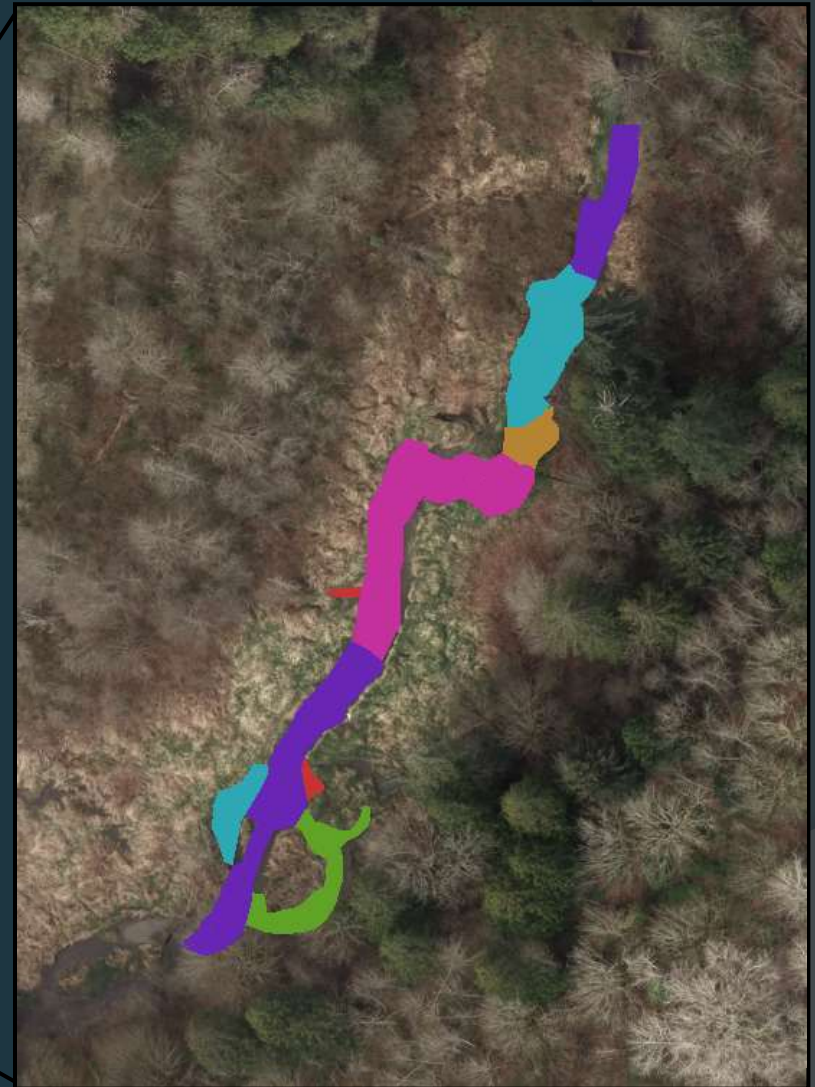
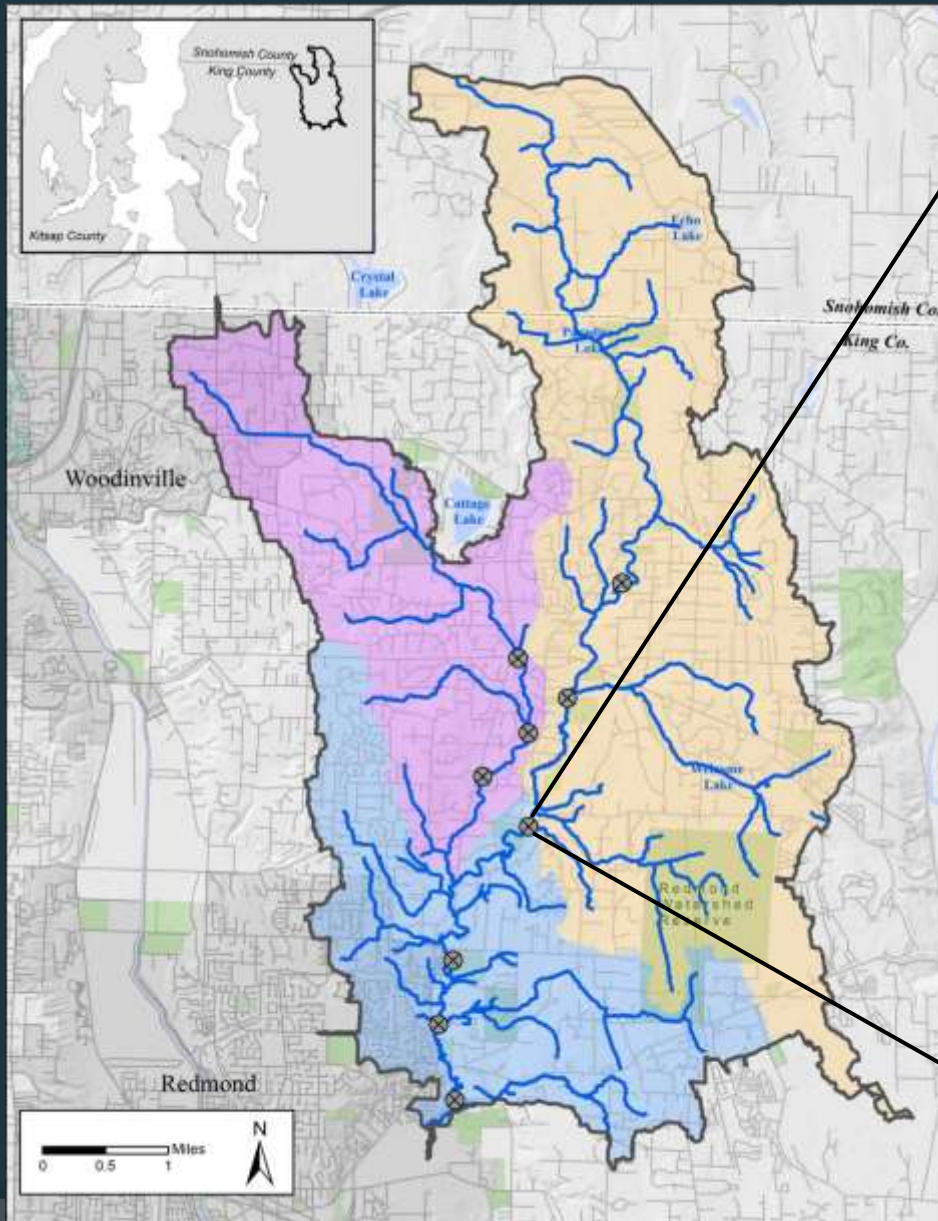


Sample Site Selection and Habitat Mapping



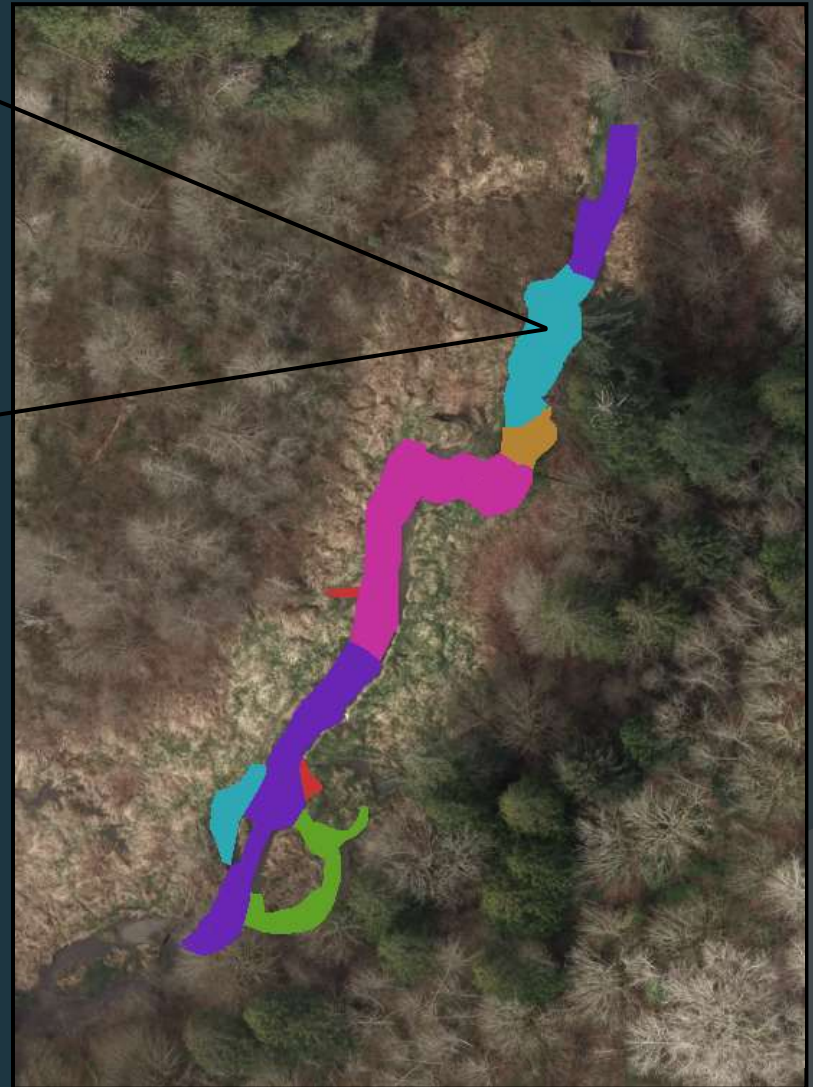
- Three sub-basin areas
 - Cottage
 - Upper Bear
 - Lower Bear
- Three sample sites per sub-basin area

Sample Site Selection and Habitat Mapping

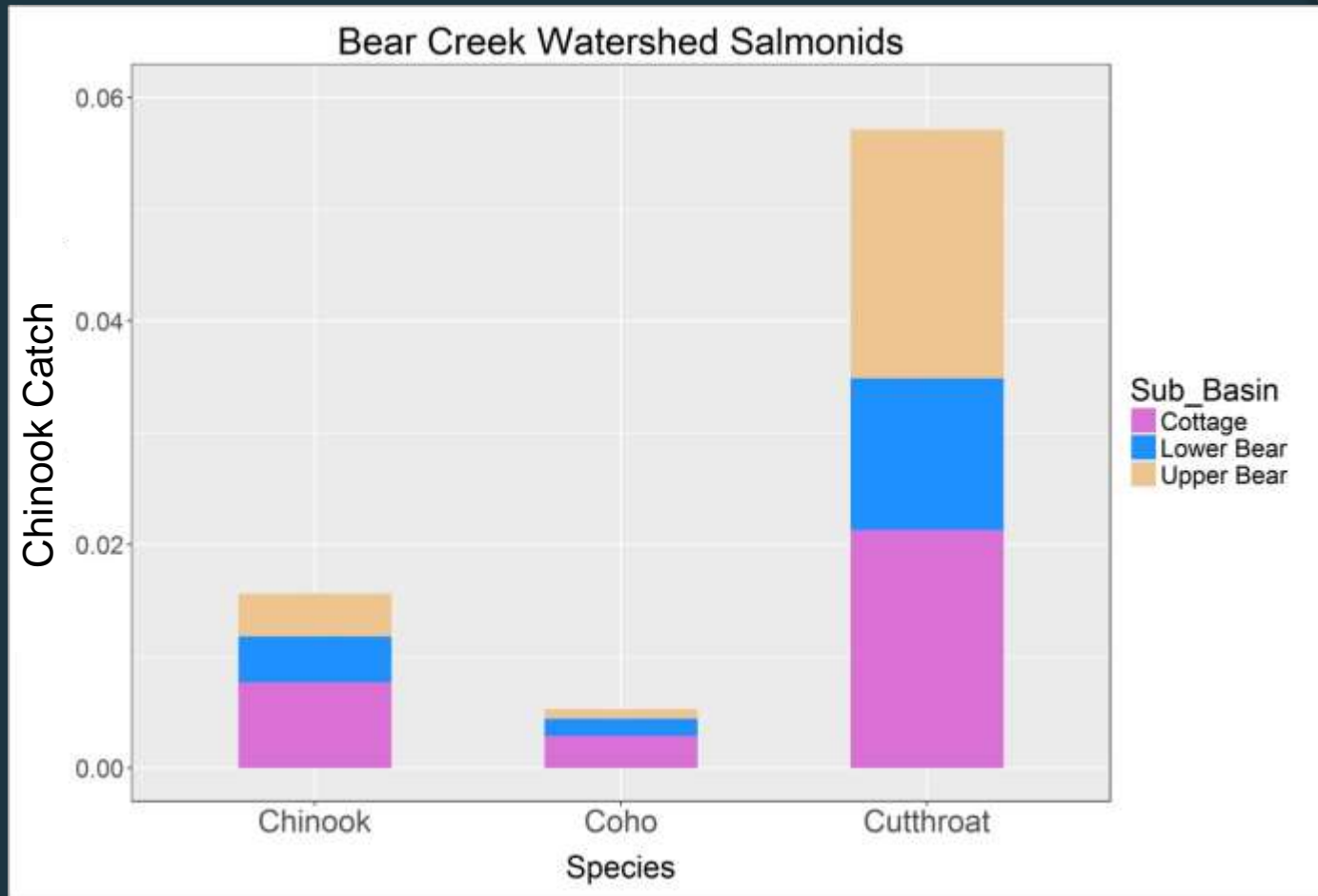


Habitat and Fish Sampling

Backpack Electrofishing



Observed Salmonids



Chinook



Coho



Cutthroat



What Influences Chinook Habitat Use?

- Statistical analyses indicate:
 - Month
 - Habitat type
 - Sub-basin area

Bear Creek Juvenile Chinook life stages

Fry (small – leave early)

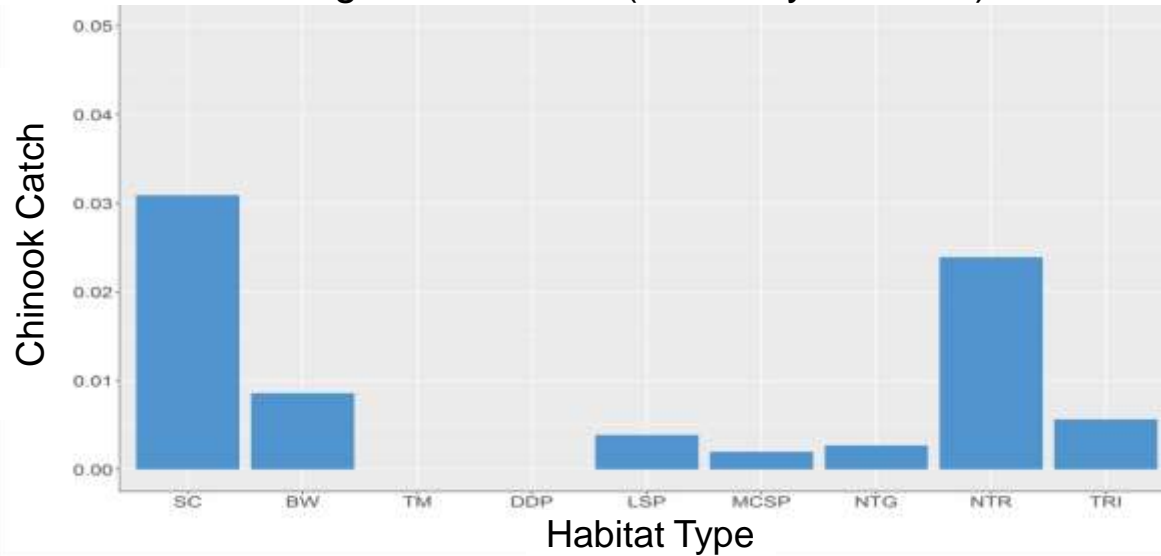


Parr (larger – leave later)



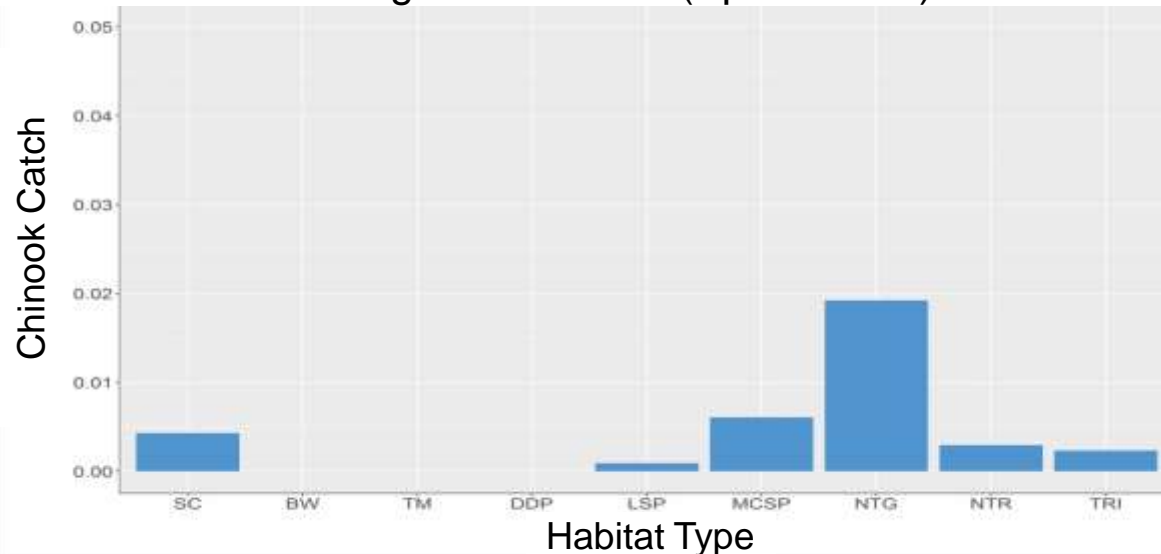
Chinook Use a Suite of Habitats

Cottage Lake Creek (February – March)



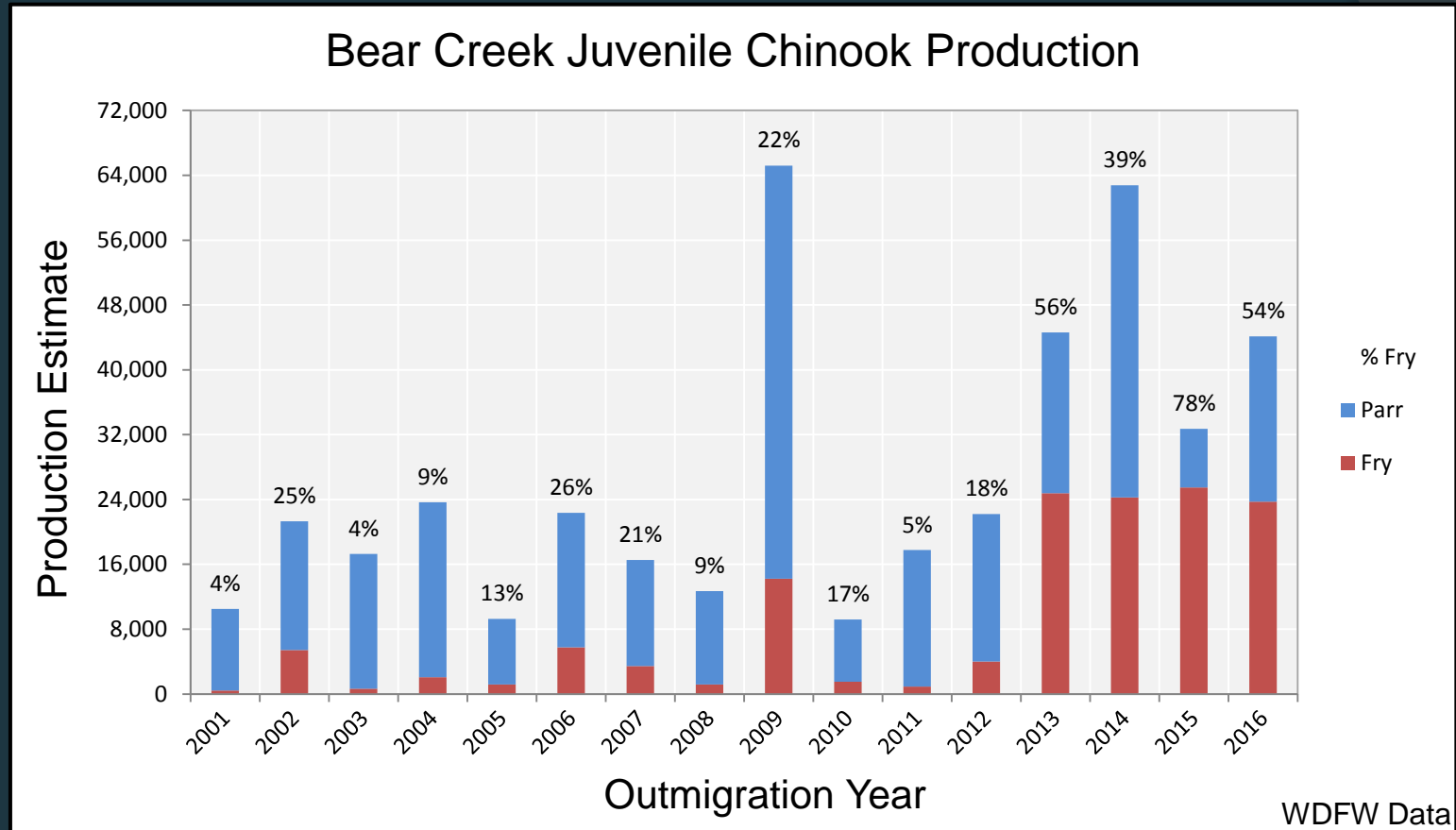
- Side-channels
- Backwaters
- Runs

Cottage Lake Creek (April – June)



- Side-channels
- Pools
- Glides

More Chinook Leaving as Fry



- Adult productivity increasing (more juveniles produced)
- Greater proportion of juveniles leaving as fry
- Rearing habitat limited

Restoration and Conservation

- Support a suite of rearing habitats and increase overall rearing habitat availability
- Well-functioning riverine, floodplain, and riparian processes
- Protect areas that are properly functioning and restore areas where conditions are degraded
- Spatial prioritization based on existing conditions



Special Thanks

- Landowners in Bear Creek
- Chris Gregersen
- Dan Lantz
- Jim Bower
- Jeff Burkey
- Kate Macneale
- Curtis DeGasperi
- Steven Brady
- Andrew Miller



A photograph of a fish tank. The tank is filled with water and contains several small, slender fish with dark vertical stripes on their sides. In the lower right, there are two larger fish with a mottled, brown and white pattern. The background of the tank is a dense green, possibly artificial plants or algae. The word "Questions?" is written in a white, sans-serif font in the center of the image.

Questions?