

# White Sturgeon in the Gorge: The Latest News and What's to Come

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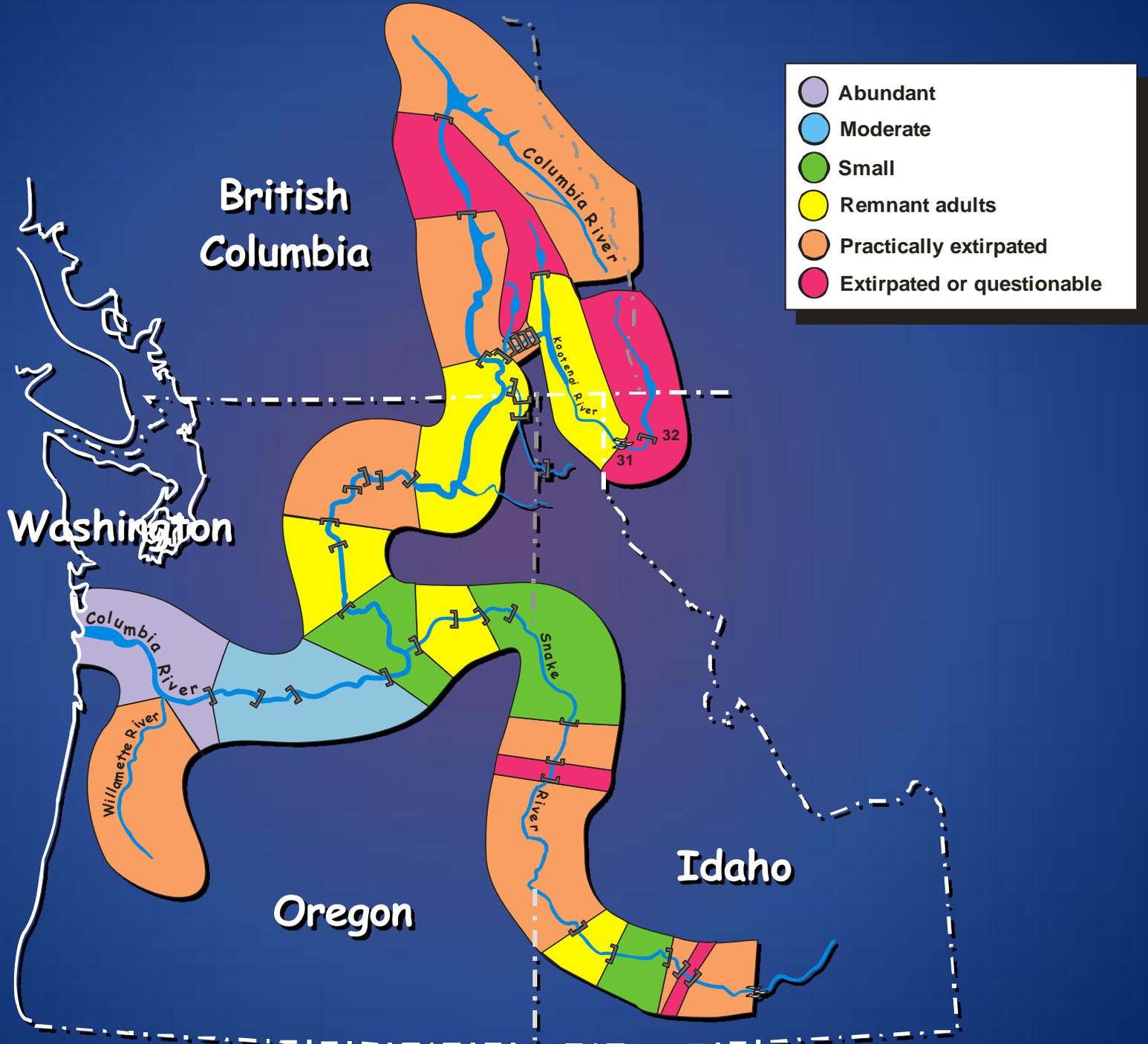
Klickitat & White Salmon Rivers (Columbia Gorge)  
Fisheries and Watershed Conference

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# White Sturgeon: A Primer

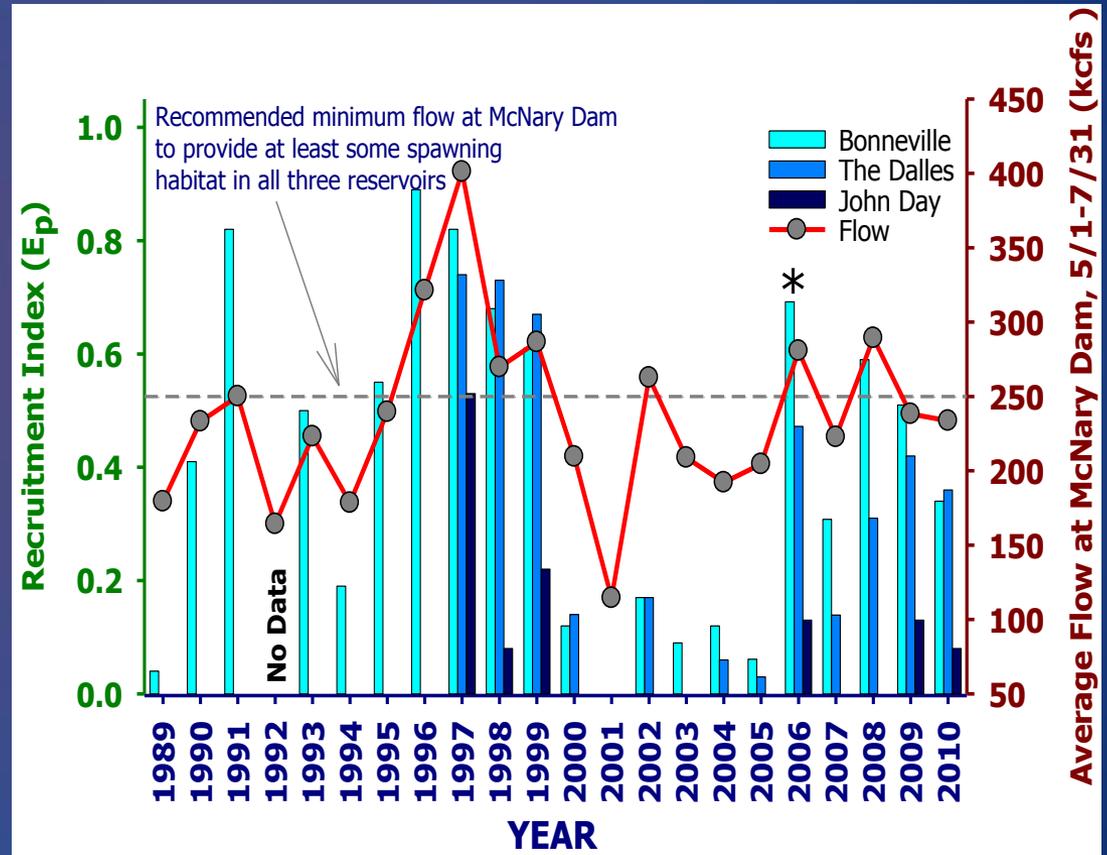
- Native species, largest freshwater fish in N. A.
- Fish have exceeded 600kg & 6 m
- Long lived (100y), late maturing, interpareous
- Spawning interval, 1-5 years
- Broadcast spawning habit, short incubation
- Genetically complex- 250 + chromosomes





# It's all about flow, or lack thereof...

- Strong relationship between flows and production
- Complex currents
- Higher flows = more dispersal = less predation



# Reproduction

- Spawn temps 12-17°C
- Inter-generational spawning
- Eggs adhesive
- 7-10 d incubation time @ 15°C
- Newly hatched larvae do not resemble adults



# The First 6 months...

- Larvae metamorphosis over several weeks

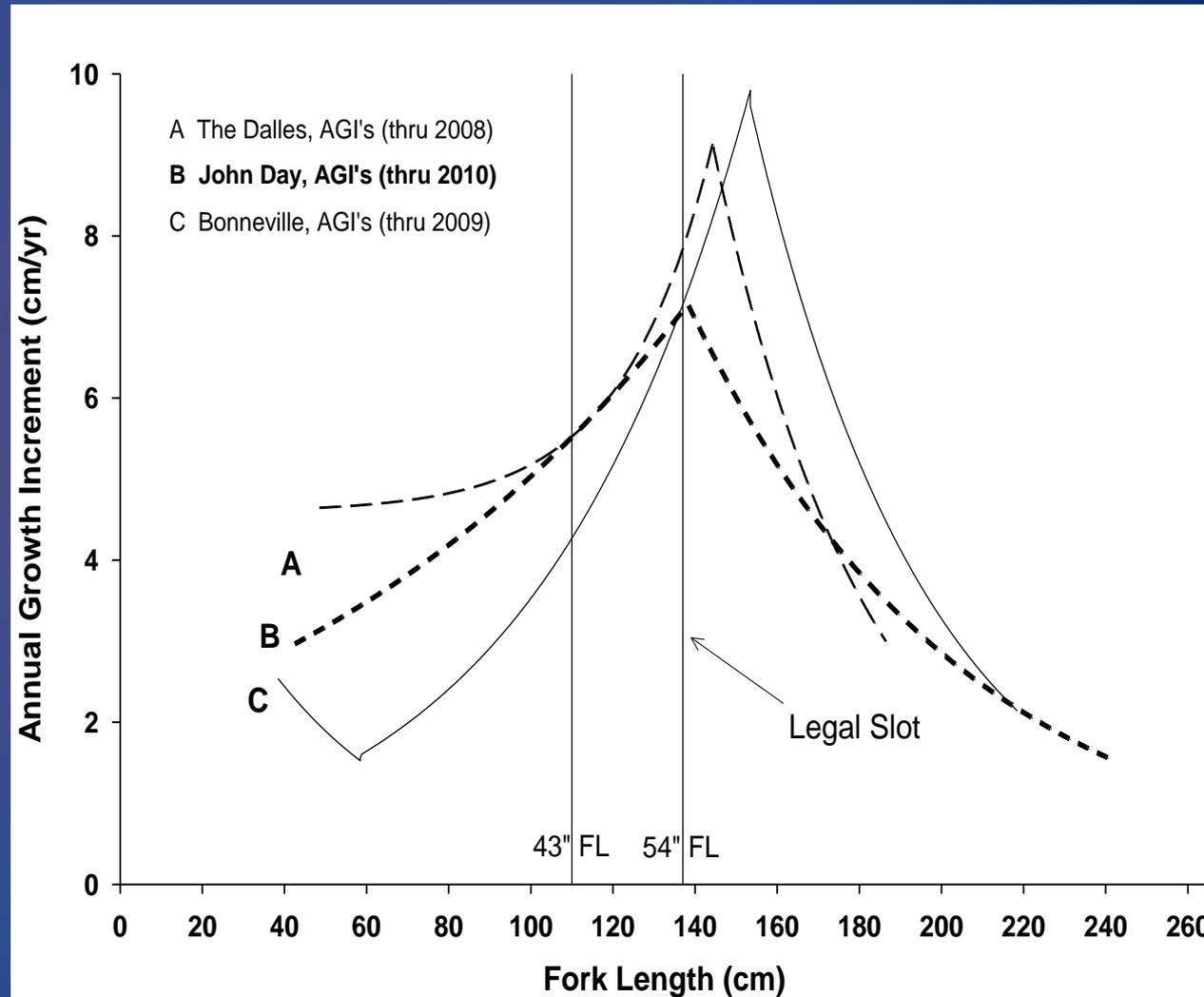


- Highly vulnerable to predators
- Salmon spill also good for sturgeon
- High Flow years = Strong year classes
- Yearly spawning success not necessary



# Growth

- Sturgeon grow rapidly at first
- Then they slow down
- Then they speed up again
- Fastest growth at sexual maturation
- Feed on a variety of prey



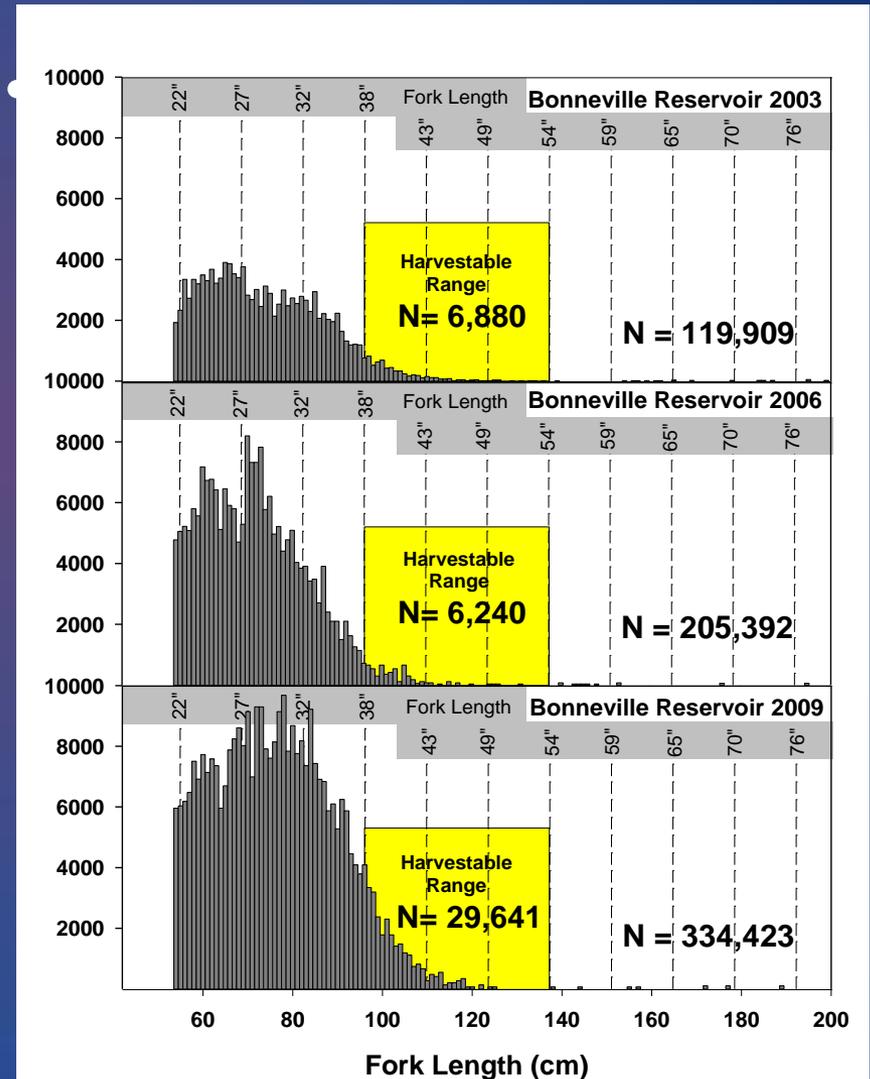
# Co-Management M&E

- Fisheries monitoring
- Regular population assessments
- Yearly recruitment monitoring
- Age/growth analysis



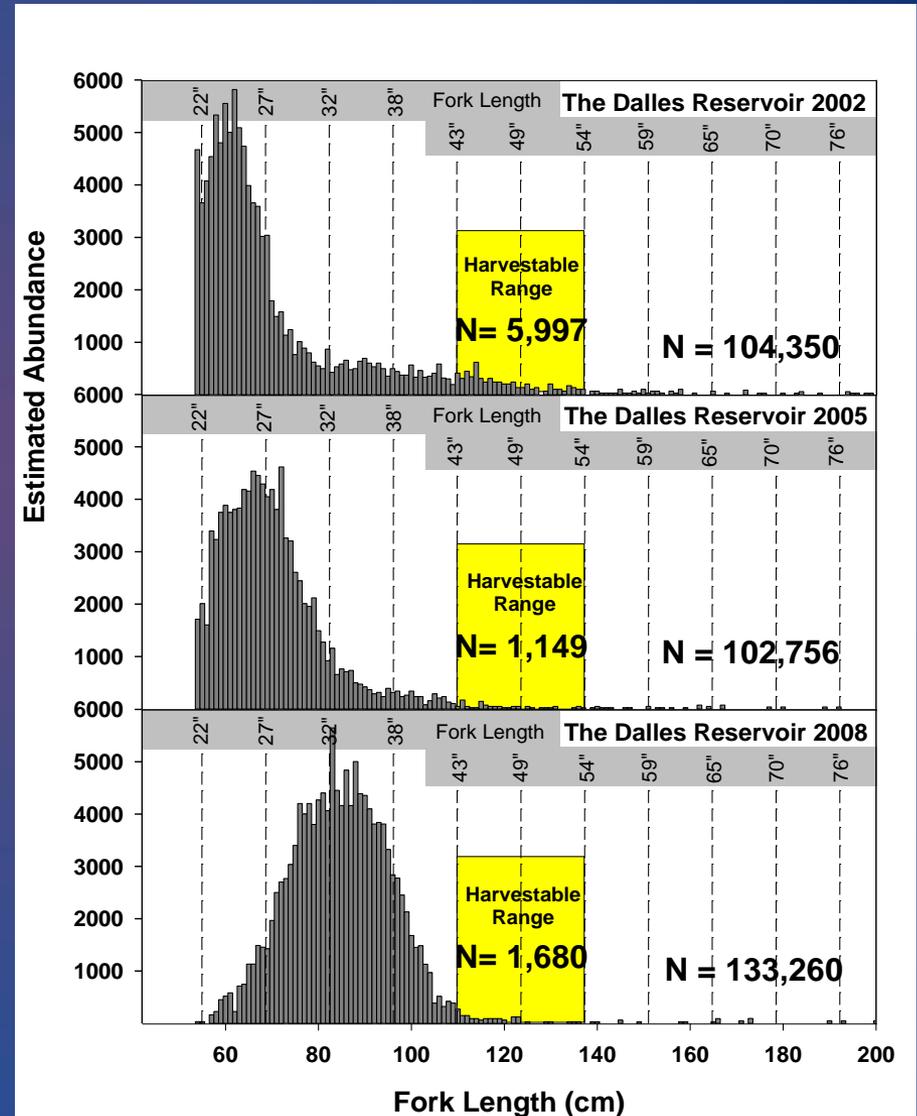
# Bonneville Reservoir

- Largest population - 300k
- Significant pop. increases over last decade
- Heavily fished
- Regular recruitment from unique bathymetry



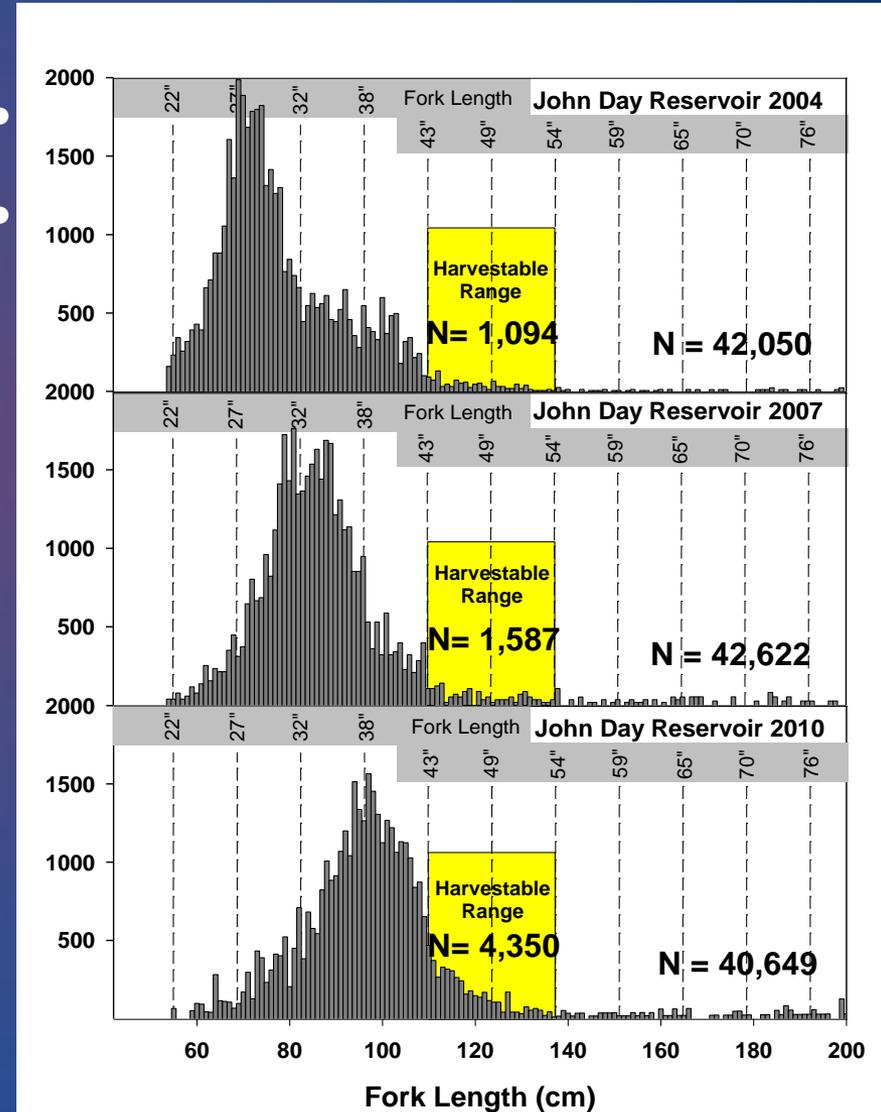
# The Dalles Reservoir

- Smallest pool
- Medium sized population - 100K
- Average spawning conditions (JD Dam TR)
- Benefitted from '96-'97 high flows



# John Day Reservoir

- Largest reservoir, nearly 75 miles in length
- Smallest population - 40k
- Poorest recruitment
- Currently a good fishery, from 96-97 flood year recruitment boost
- Poor recruitment in the 2000's coming



# Fisheries

- Tribal Subsistence
- Tribal Commercial
- Sport



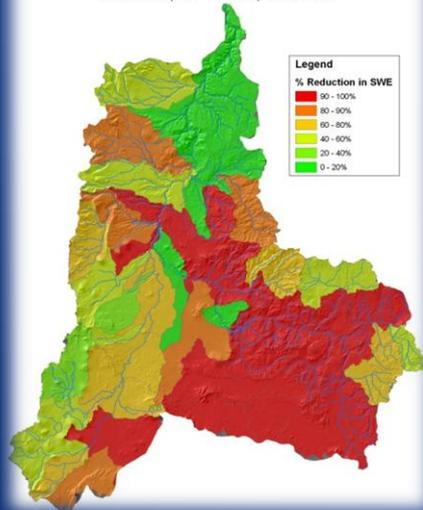


# The Future...

- Intensive management
- Research/M&E
- Supplementation
- Climate Change



Relative Reduction in Snow Water Equivalent  
Baseline (1971-2000) to 2040s



# Acknowledgements



Tribal Fishers

Yakama Nation Fisheries

Oregon Department of Wildlife

Washington Department of Wildlife

Questions?

