

# DWR AQUATIC ECOLOGY STUDIES IN YOLO BYPASS: PLANS FOR UPCOMING RESEARCH



**Yolo Bypass Fishery Enhancement Planning Team**  
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Pilot Inundation Work in Collaboration with: David Katz, John Brennan, Knaggs Ranch & Cal Marsh and Farm Ventures



Beach Seine



Phytoplankton  
Zooplankton  
Drift



Fyke Trap



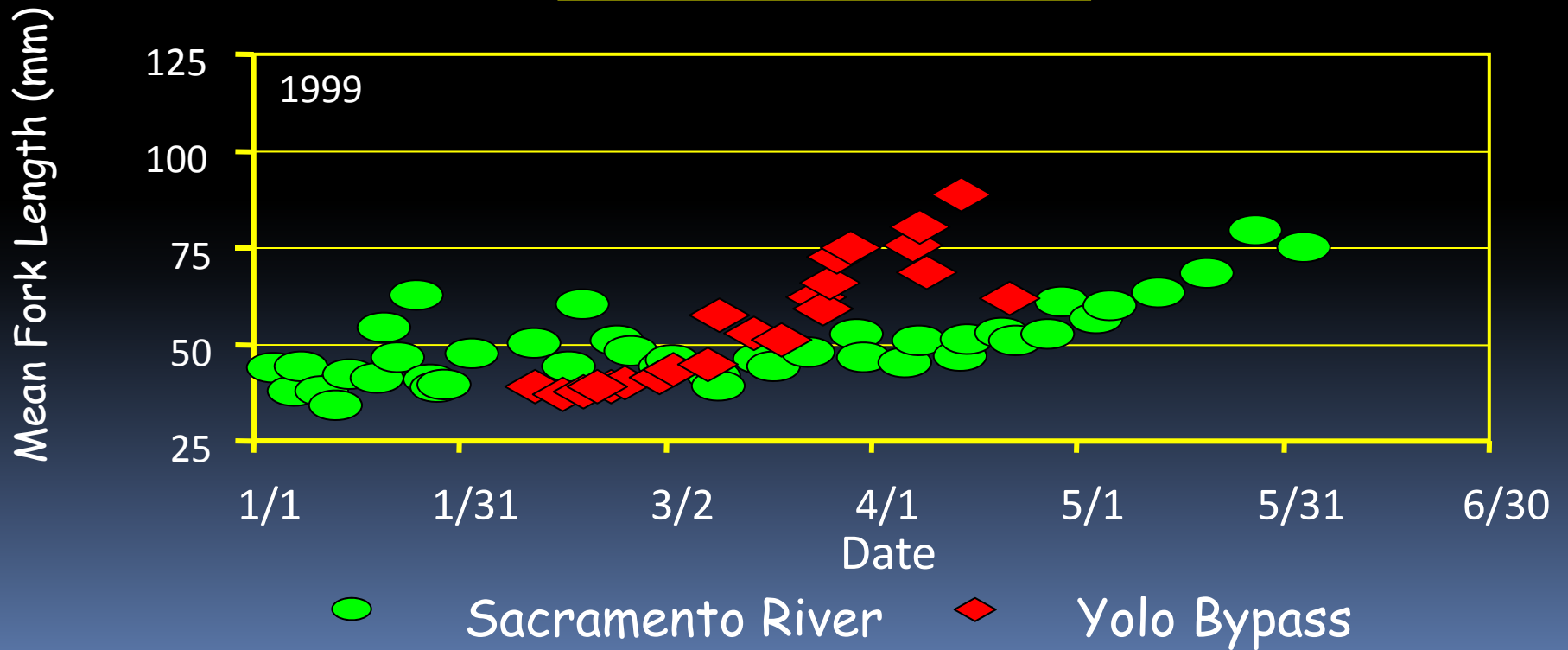
Screw Trap

DWR Yolo Bypass Sampling: since 1997

# Floodplain Habitat Supports Phenomenal Growth



*Photo: Jeffres et al. (2007)*





# DFG Ecosystem Restoration Program Collaborative Proposal



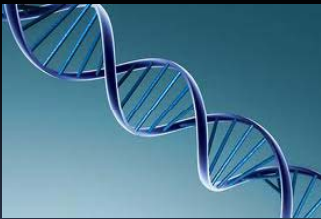
- Challenges to adult salmon and sturgeon migration

- Dr. Pete Klimley, UC Davis Biotelemetry



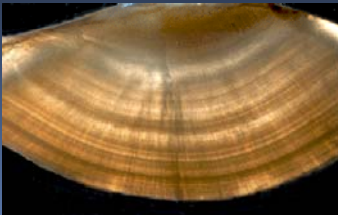
- Juvenile salmon movement and survival

- Dr. Pete Klimley, UC Davis Biotelemetry



- Which runs of salmon use the Bypass?

- Dr. Bernie May, UC Davis Genomic Variation Lab



- Unique signature of Yolo Bypass food web marked on salmon otoliths?

- Dr. Rachel Barnett-Johnson, USBR

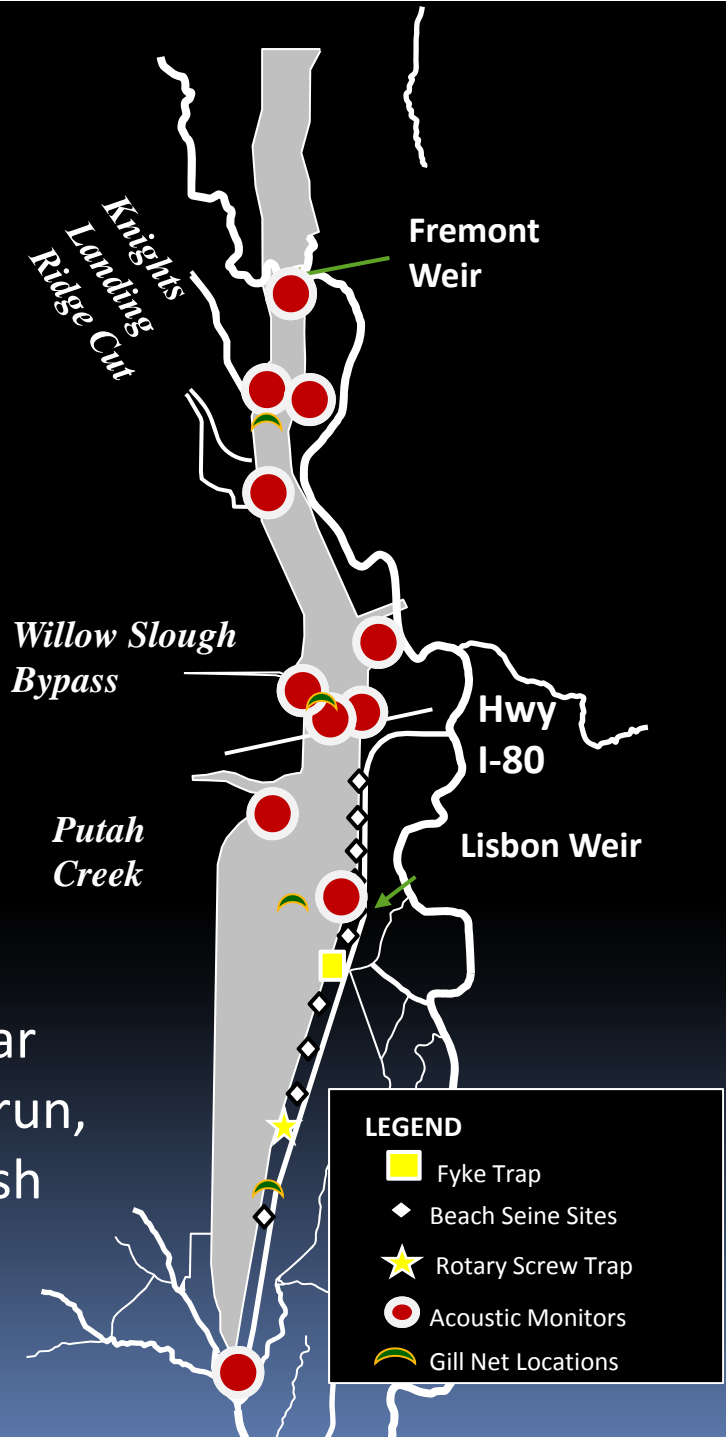
# Salmon & Sturgeon Telemetry



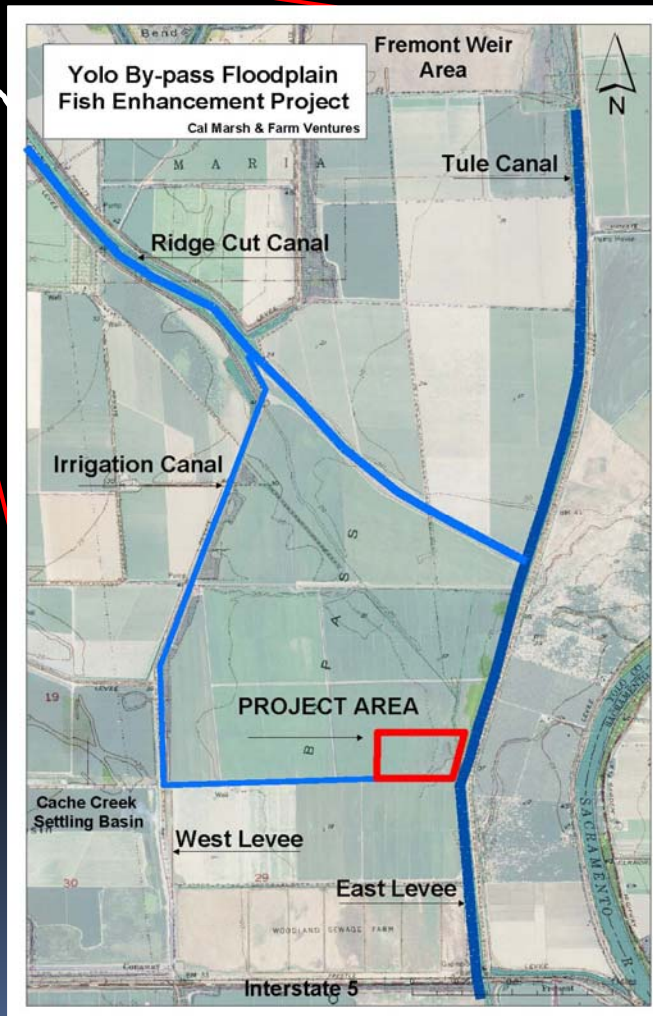
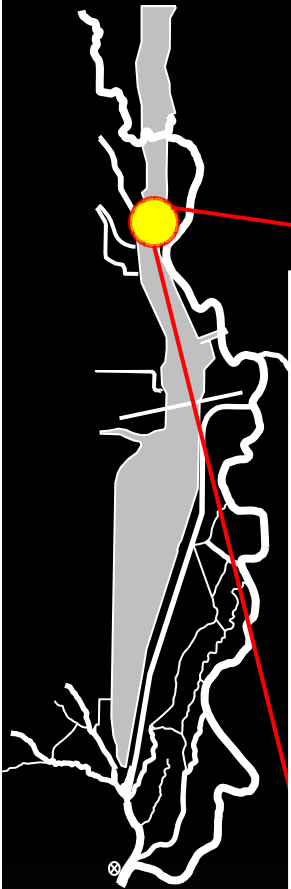
25 adults per species each year,  
captured from Fyke and gill nets in  
Bypass



50 smolts per year  
Source: Late-fall run,  
Coleman Nat'l Fish  
Hatchery



# Inundation Pilot Study Knaggs Ranch, Winter '11-'12



- Collaborative project:
  - Cal Marsh & Farm Ventures (David Katz, John Brennan)
  - UC Davis (Jacob Katz, Moyle Laboratory)
- ~ 10 acres
- Goals:
  - Compare floodplain habitat types for food web and salmon rearing
  - Evaluate water quality conditions for salmon survival and growth