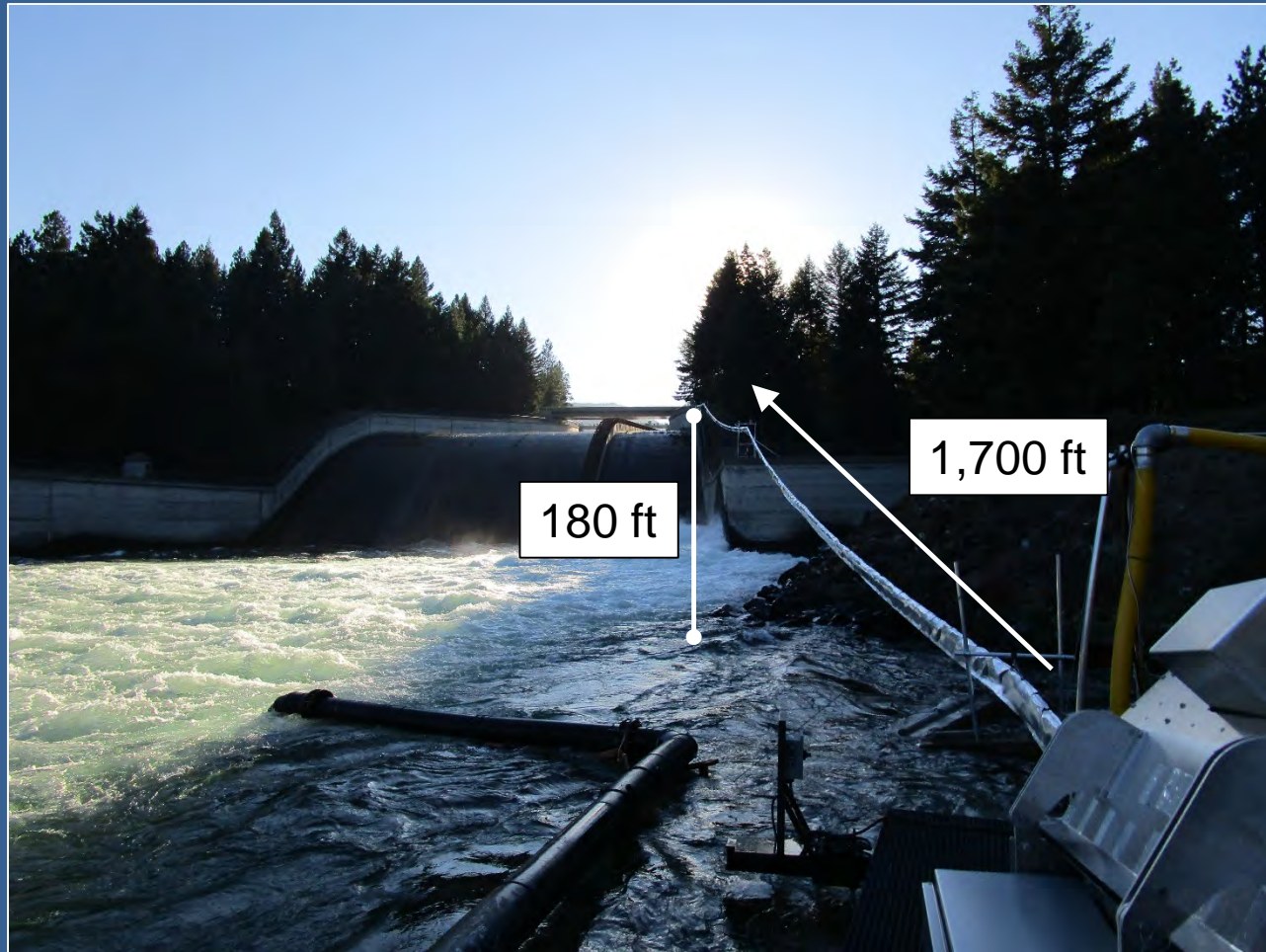


Updates on Fisheries Evaluations in the Yakima River, Washington:

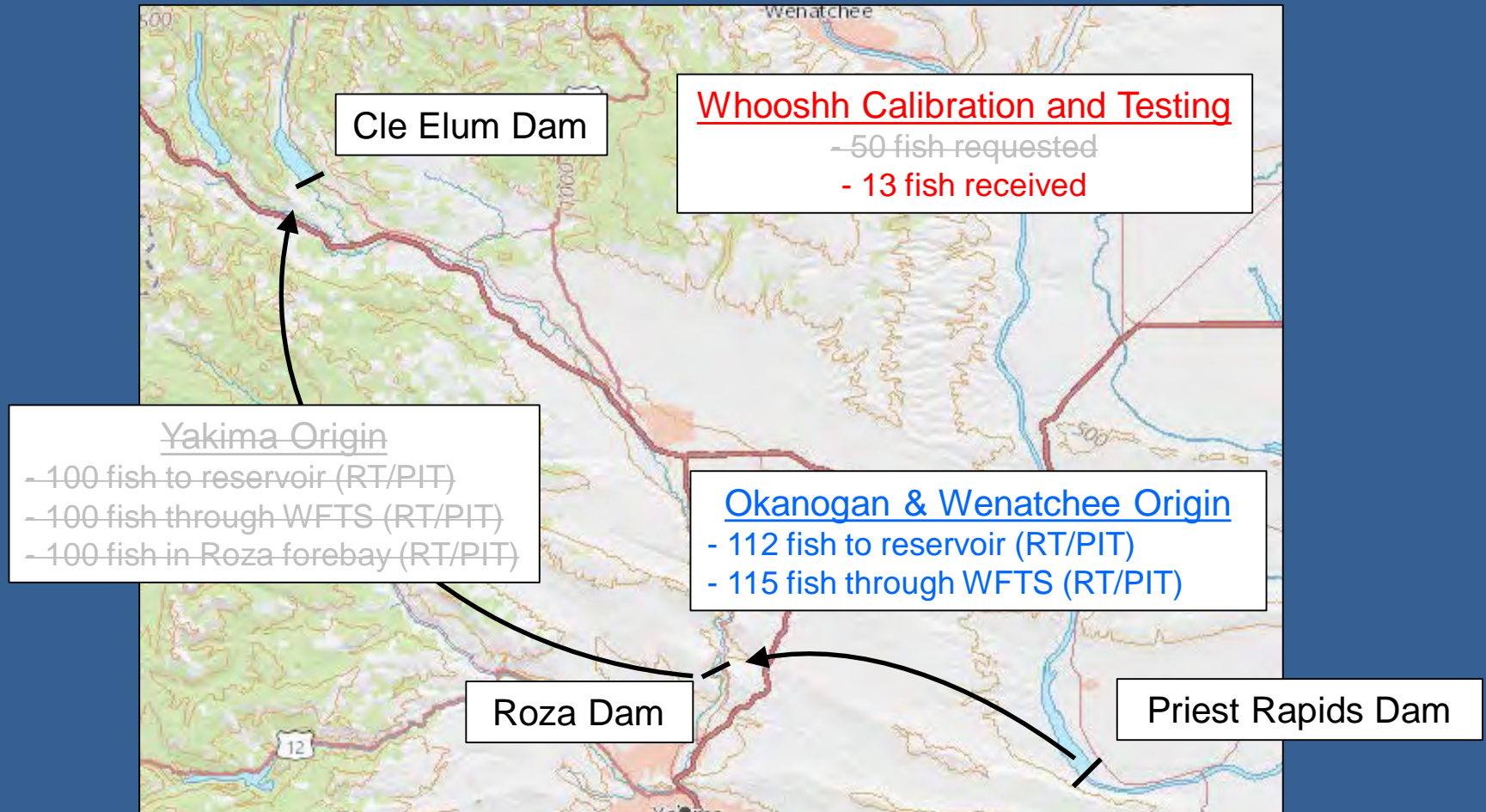
- Whooshh Fish Passage at Cle Elum Dam
- Roza Dam to Cle Elum Dam Fish Behavior
- Lower Yakima River Smolt Survival

Toby Kock
U.S. Geological Survey
December 19, 2018

Whooshh Passage at Cle Elum Dam

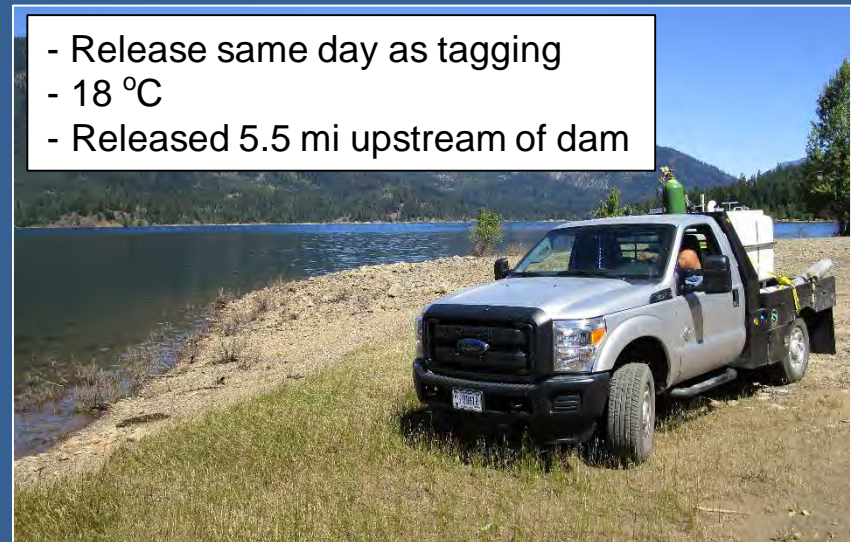


Whooshh Passage at Cle Elum Dam

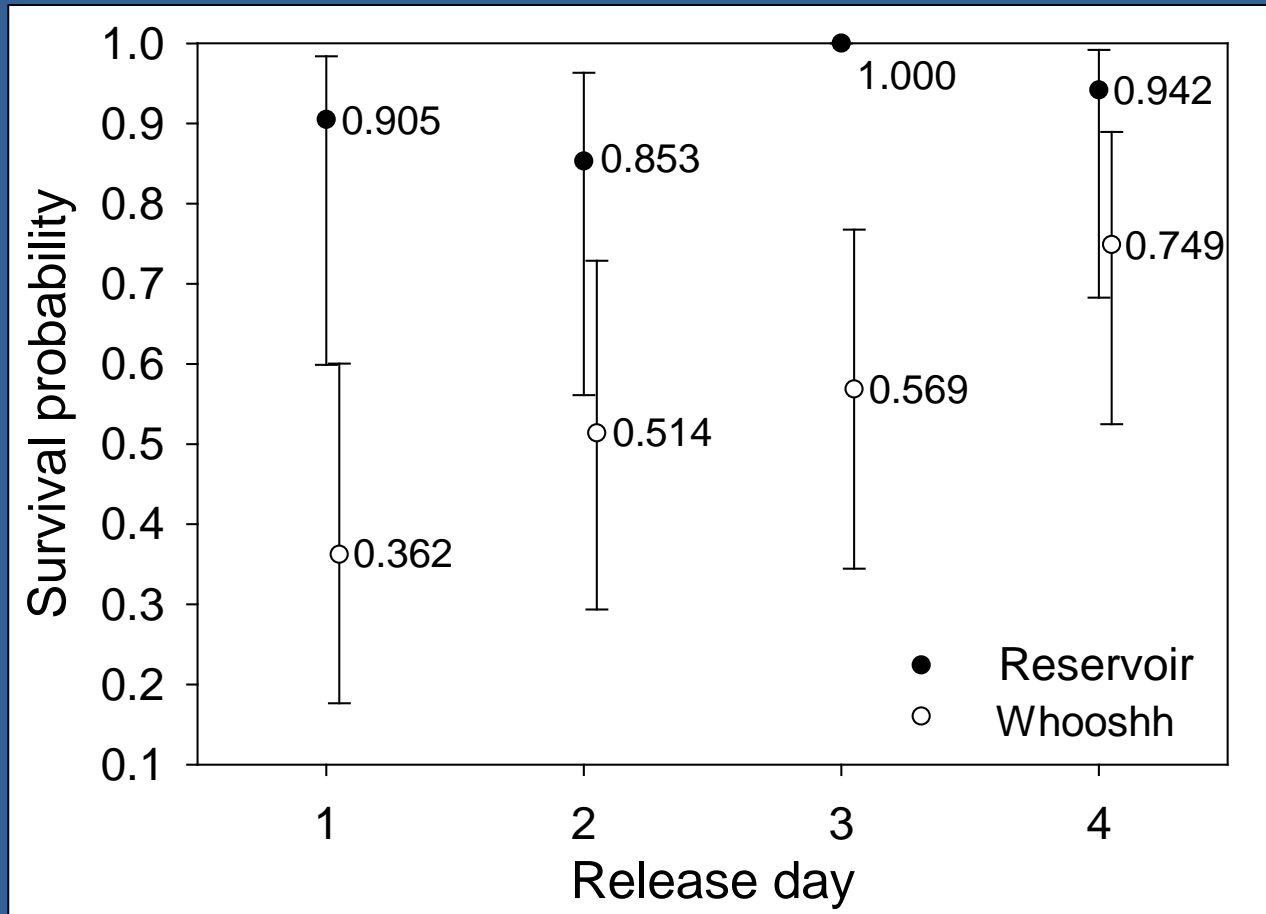


Fish Tagging and Release

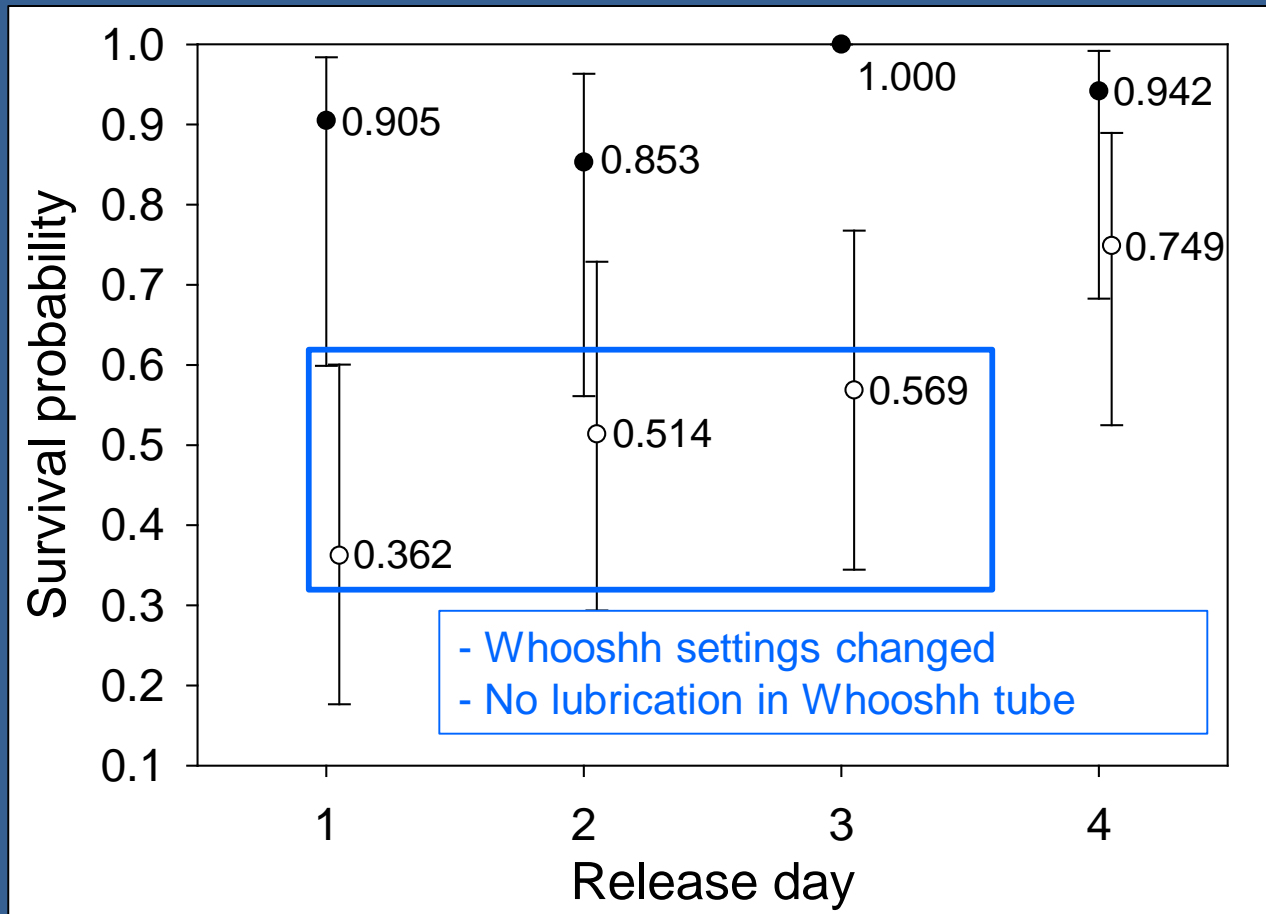
Tag date	Whooshh	Reservoir
July 14	25 fish	25 fish
July 17	27 fish	27 fish
July 18	32 fish	30 fish
July 19	31 fish	30 fish
Total =	115 fish	112 fish



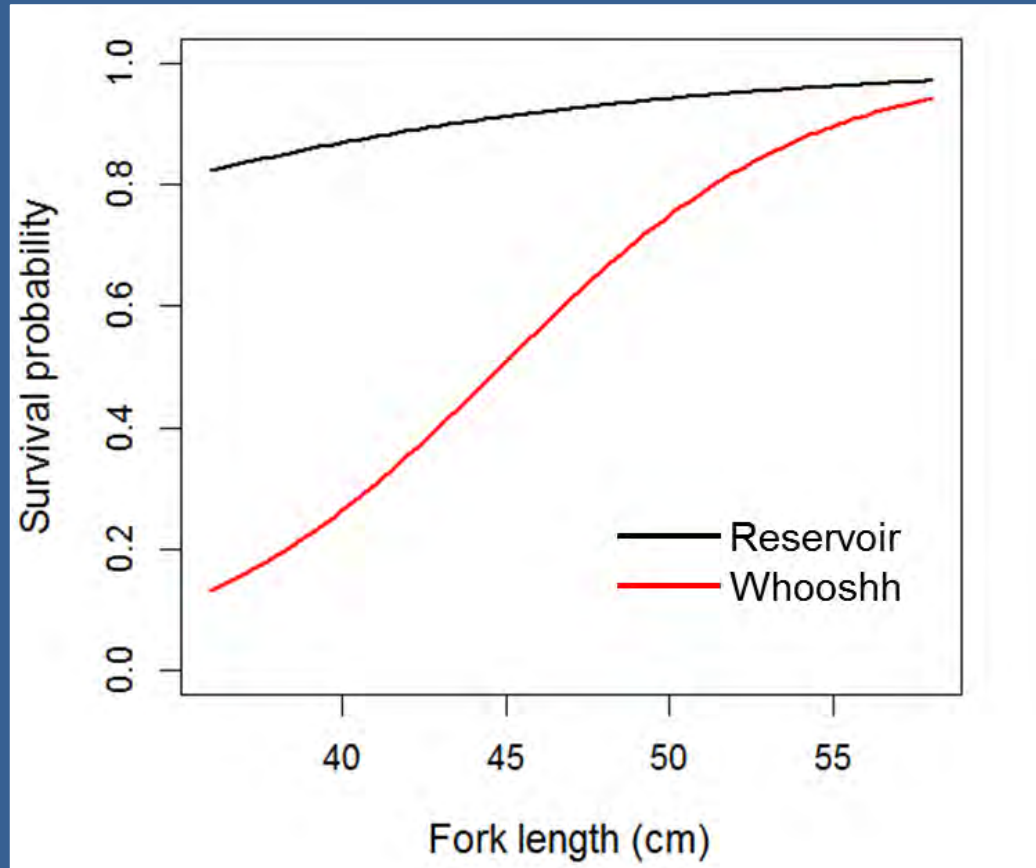
Fish Survival



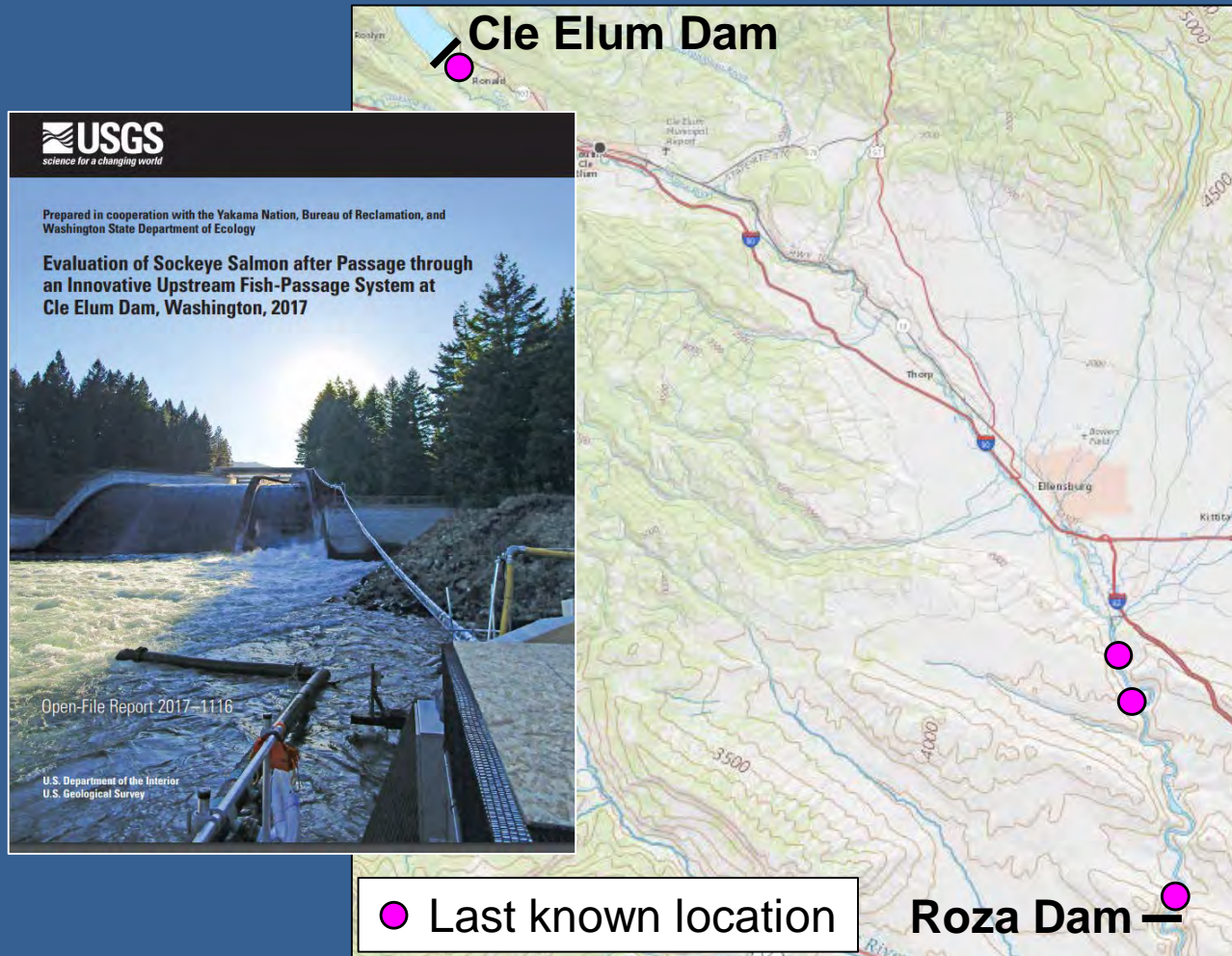
Fish Survival



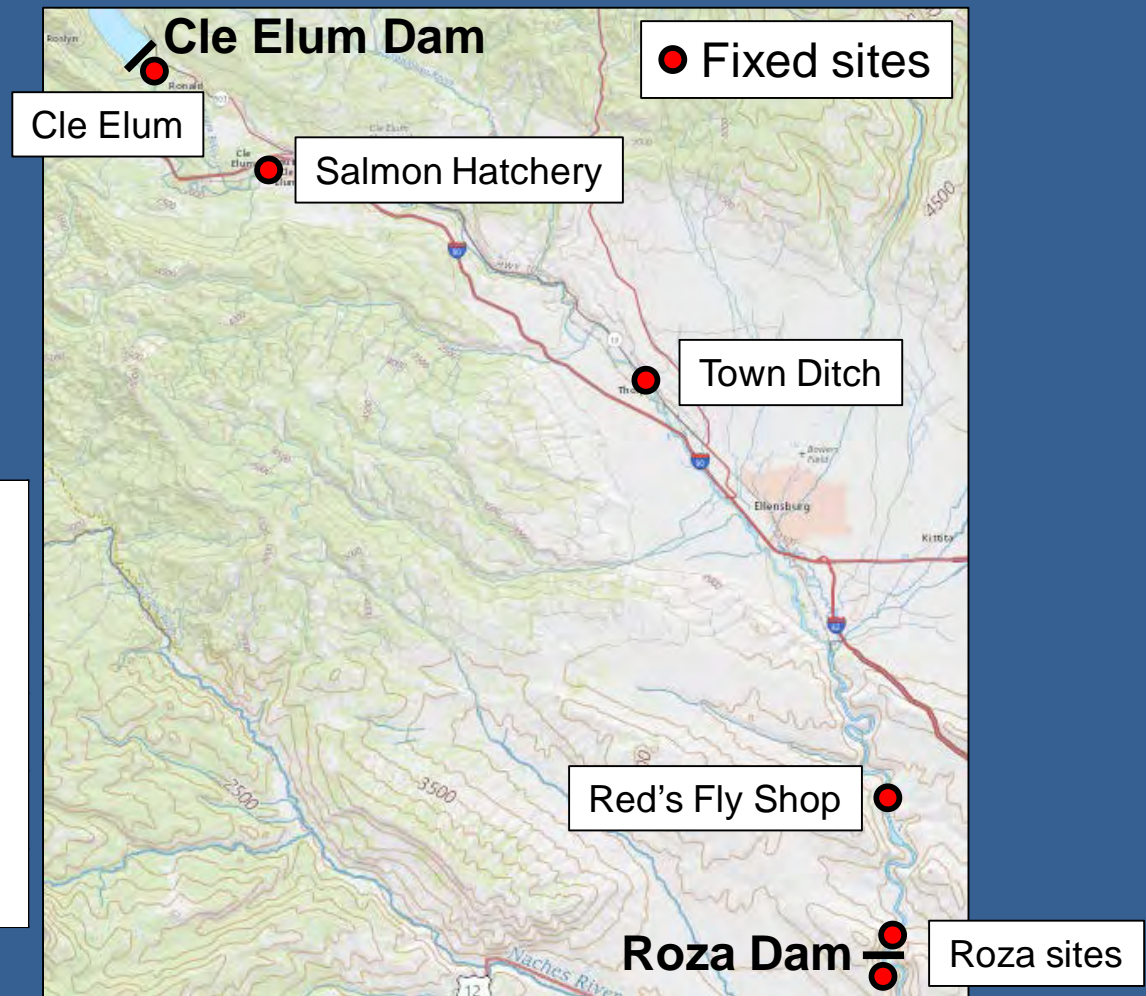
Fish Survival



Roza Dam to Cle Elum Dam: 2017

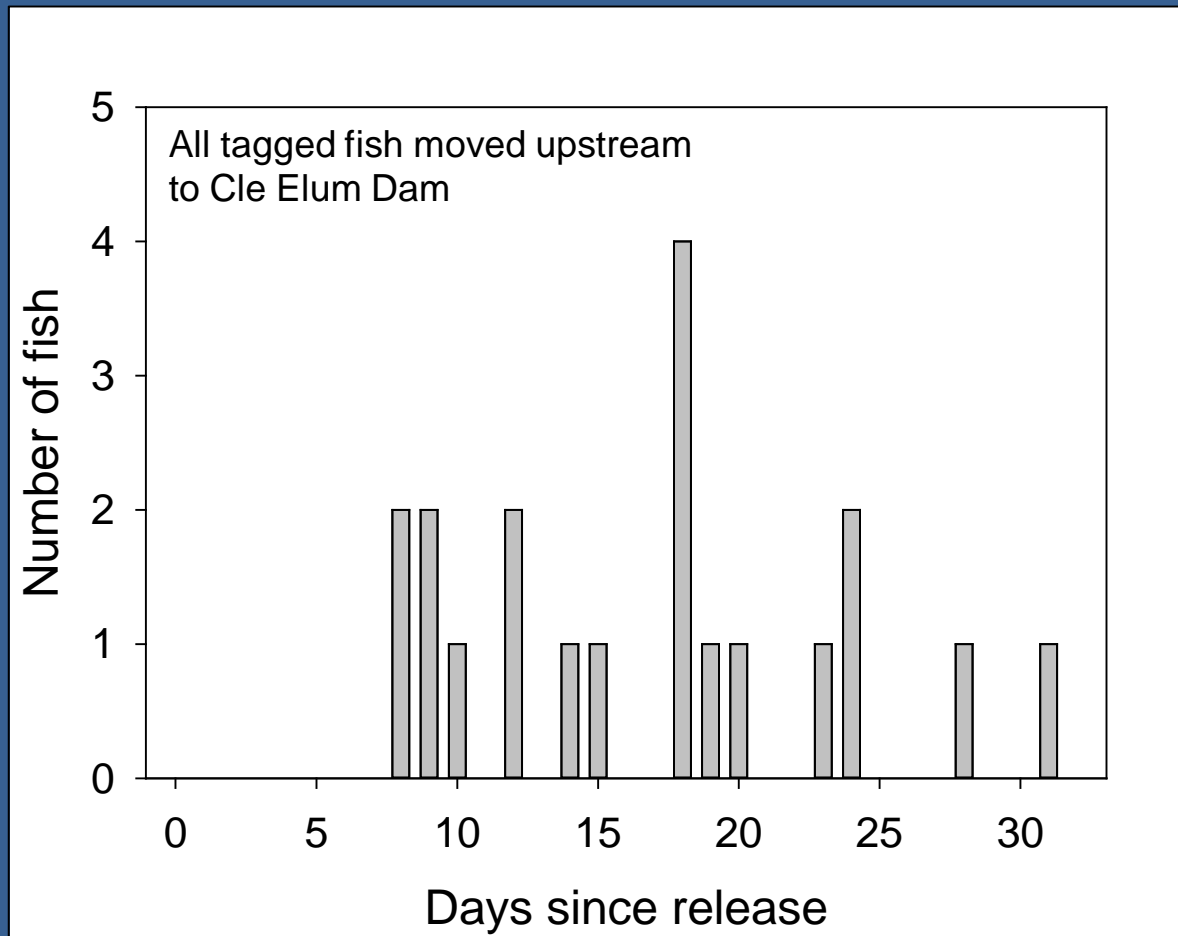


Roza Dam to Cle Elum Dam: 2018

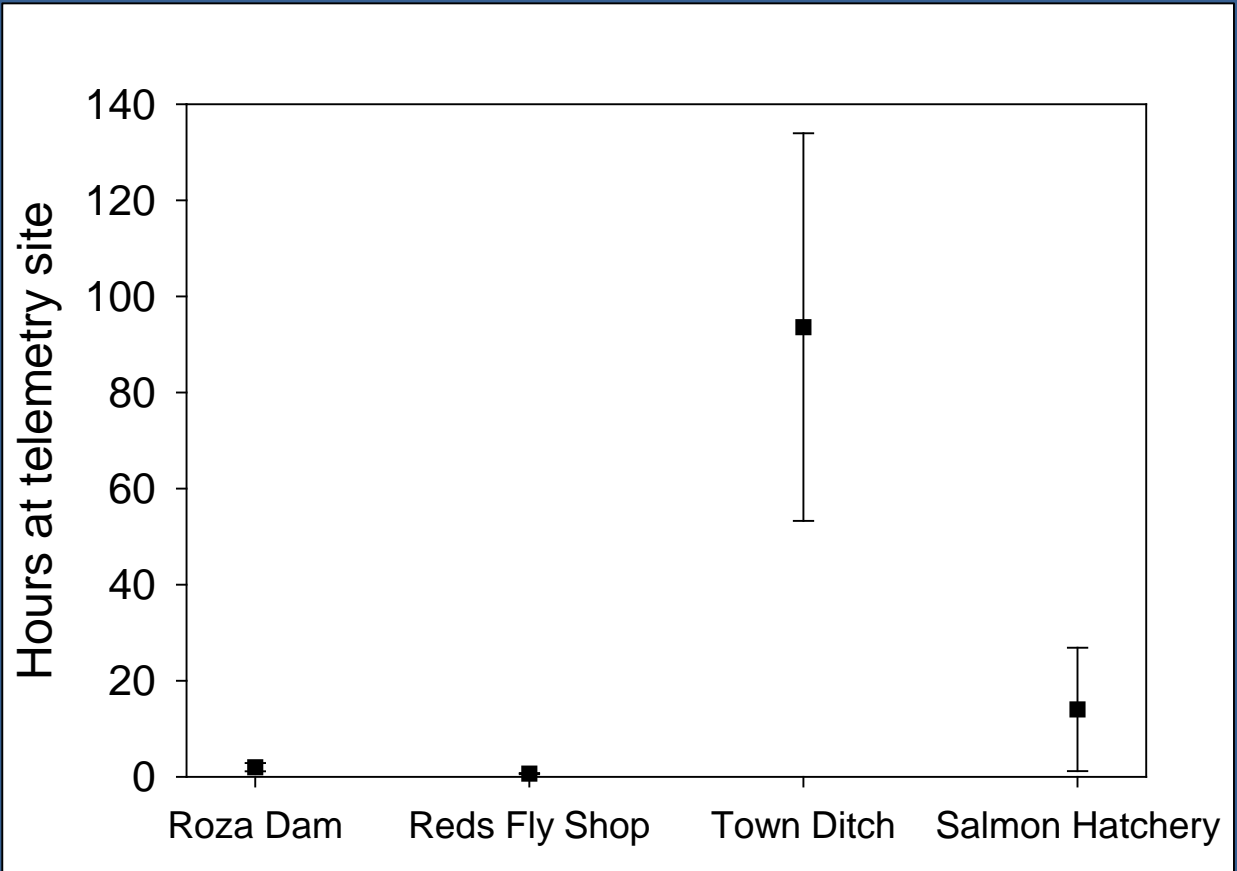


Tagging date	Number of fish
July 6, 2018	2
July 9, 2018	9
July 10, 2018	9
Total =	20

Roza Dam to Cle Elum Dam: 2018



Delay at Town Ditch



Lower River Smolt Survival



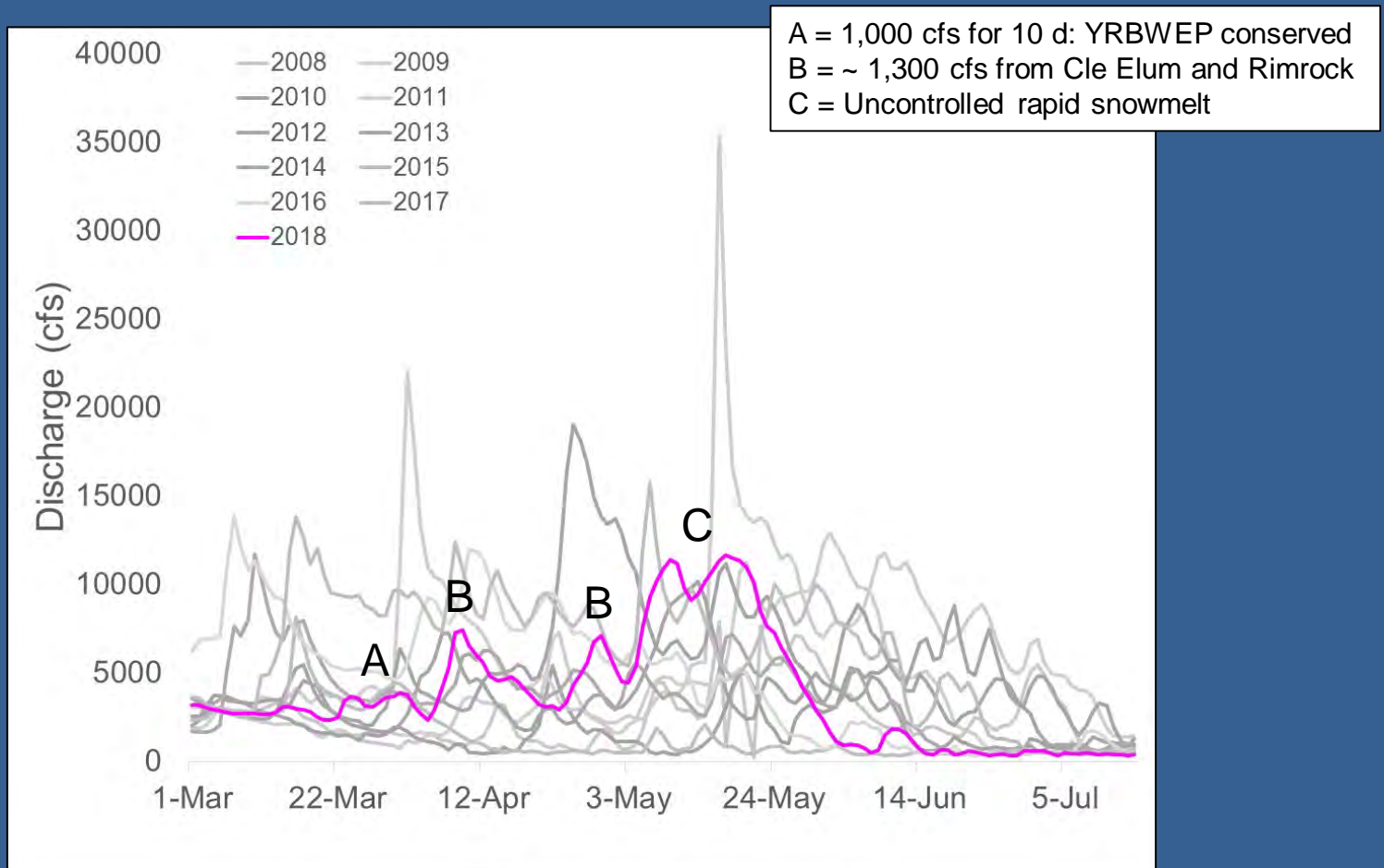
Migration Survival of Juvenile Chinook Salmon and Steelhead from Wapato Dam to the Mouth of the Yakima River, Washington, 2018

Tobias Kock¹, Michael Porter² and Russell Perry¹
November 30, 2017

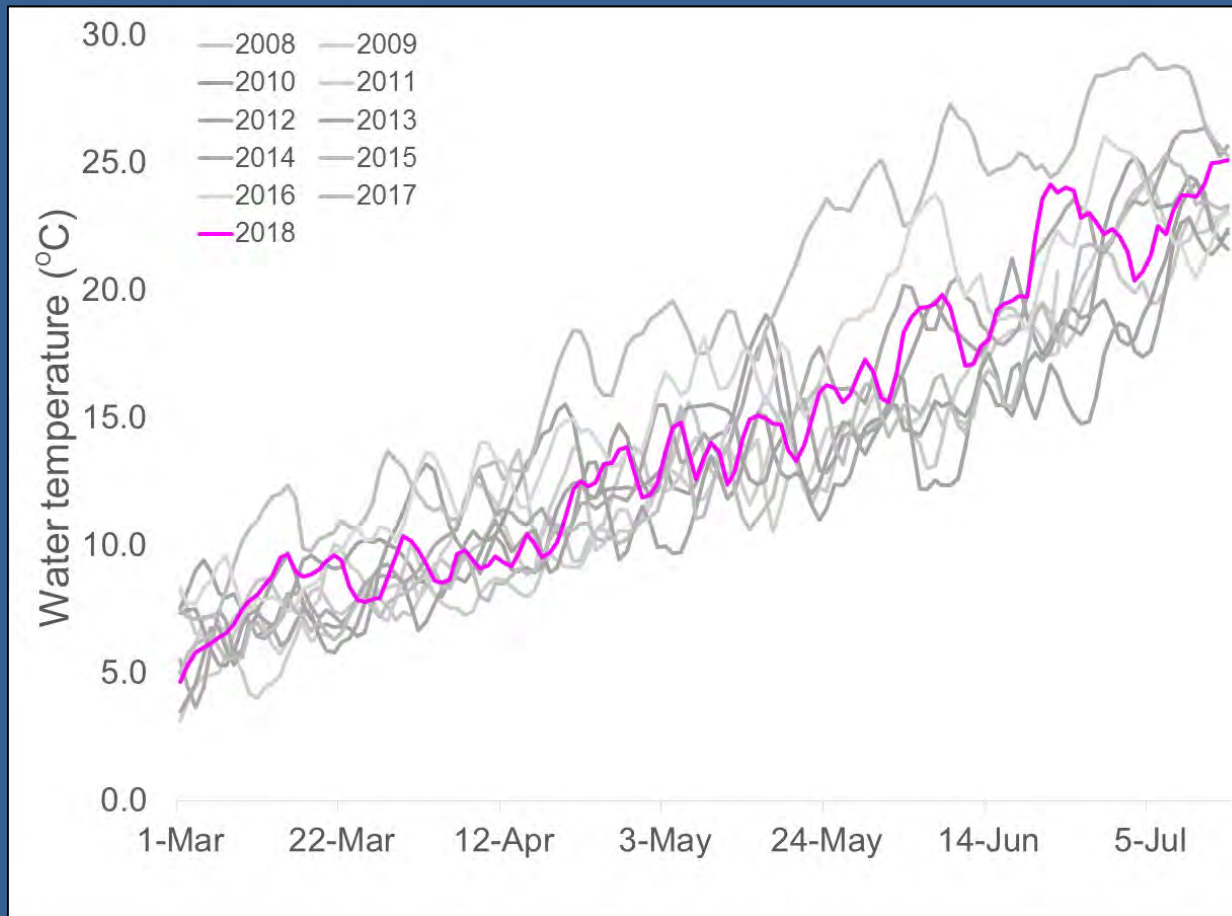
¹U.S. Geological Survey
²Yakama Nation Fisheries

U.S. Department of the Interior
U.S. Geological Survey

Lower River Smolt Survival

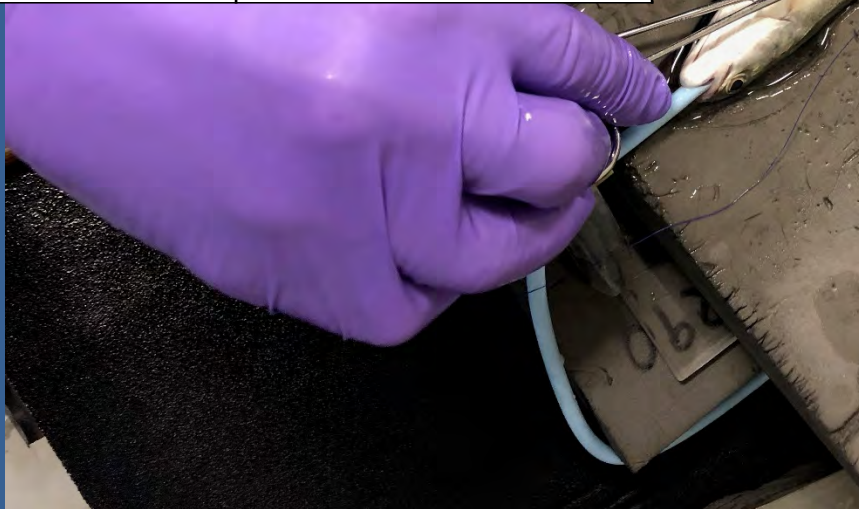


Lower River Smolt Survival

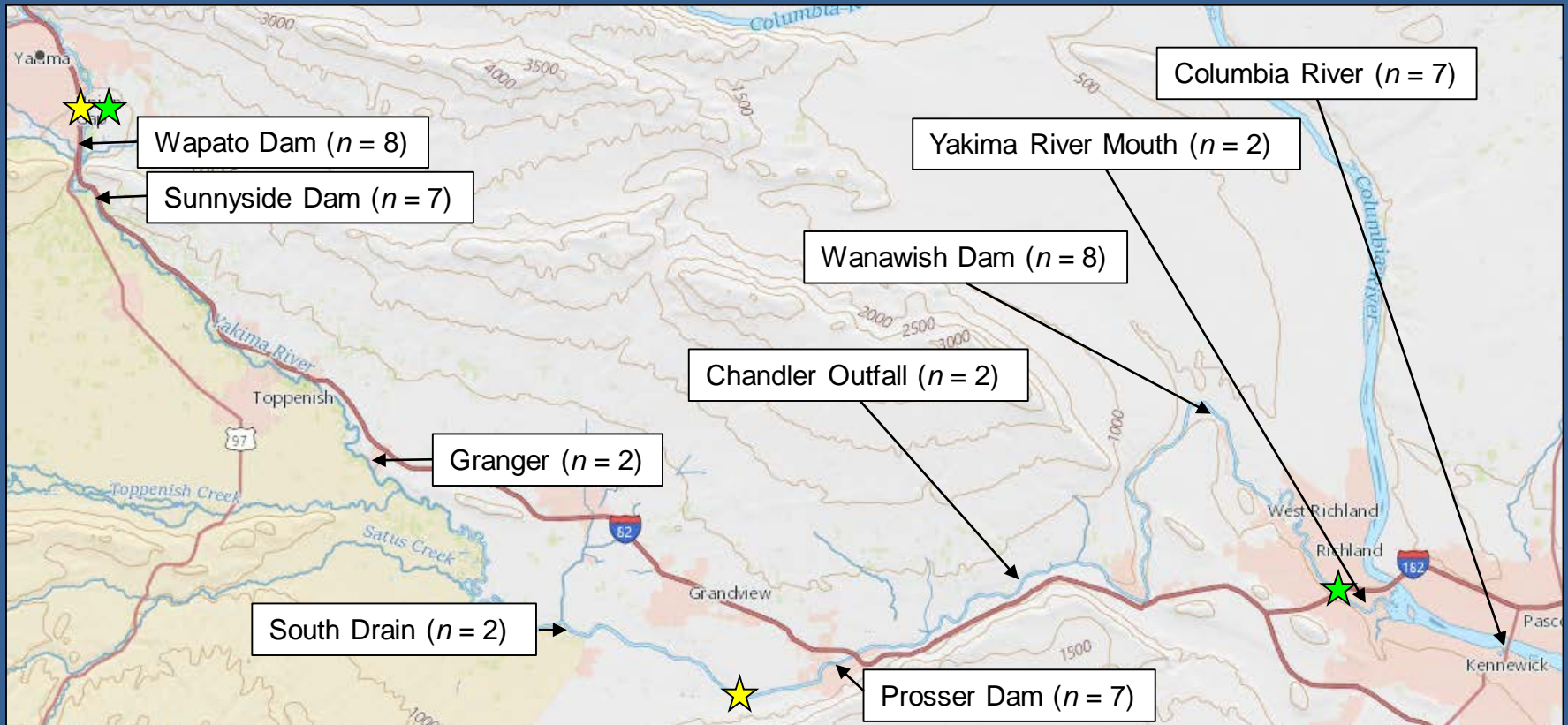


Tagging

Species	# tagged	Dates
Yearling Chinook	429	Mar. 30 – Jun. 5
Steelhead	313	Apr. 10 – Jun. 7
Subyearling Chinook	344	May 23 – Jun. 26
Lamprey	97	May 9 – May 15



Release and Monitoring Sites

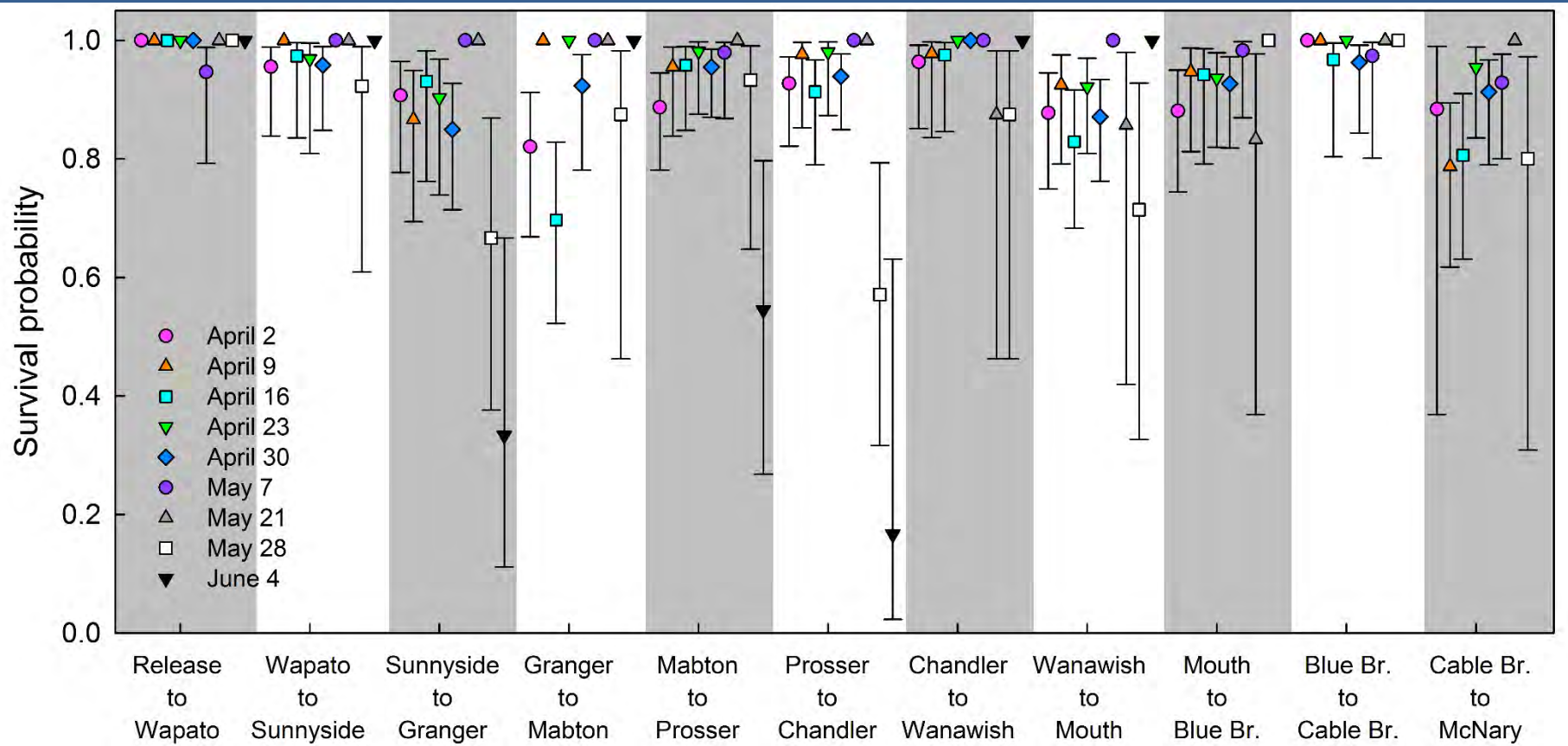


★ = CHK, STH release sites

★ = Lamprey release sites

Survival Estimate: By Release Week

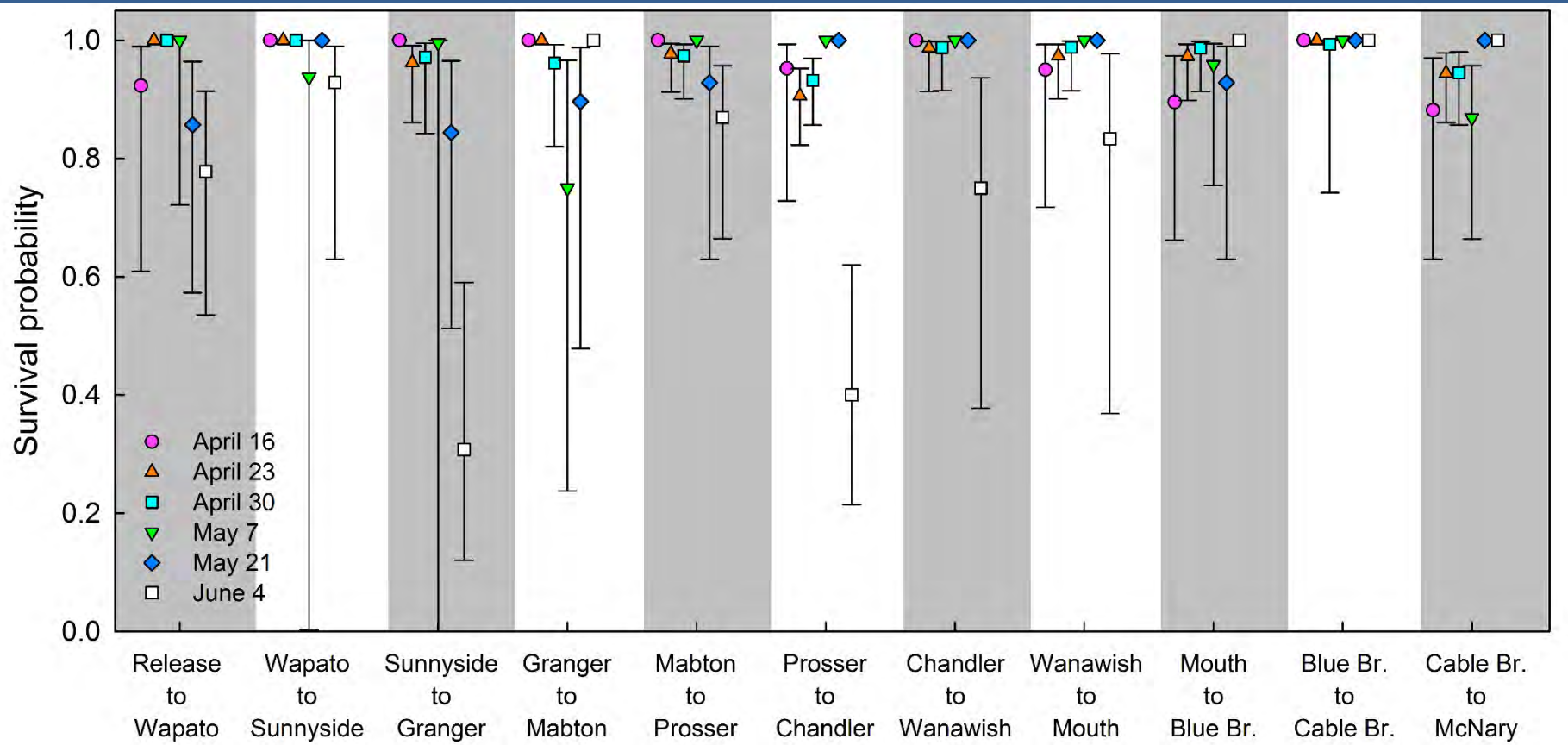
Yearling Chinook salmon



Preliminary results do not cite

Survival Estimate: By Release Week

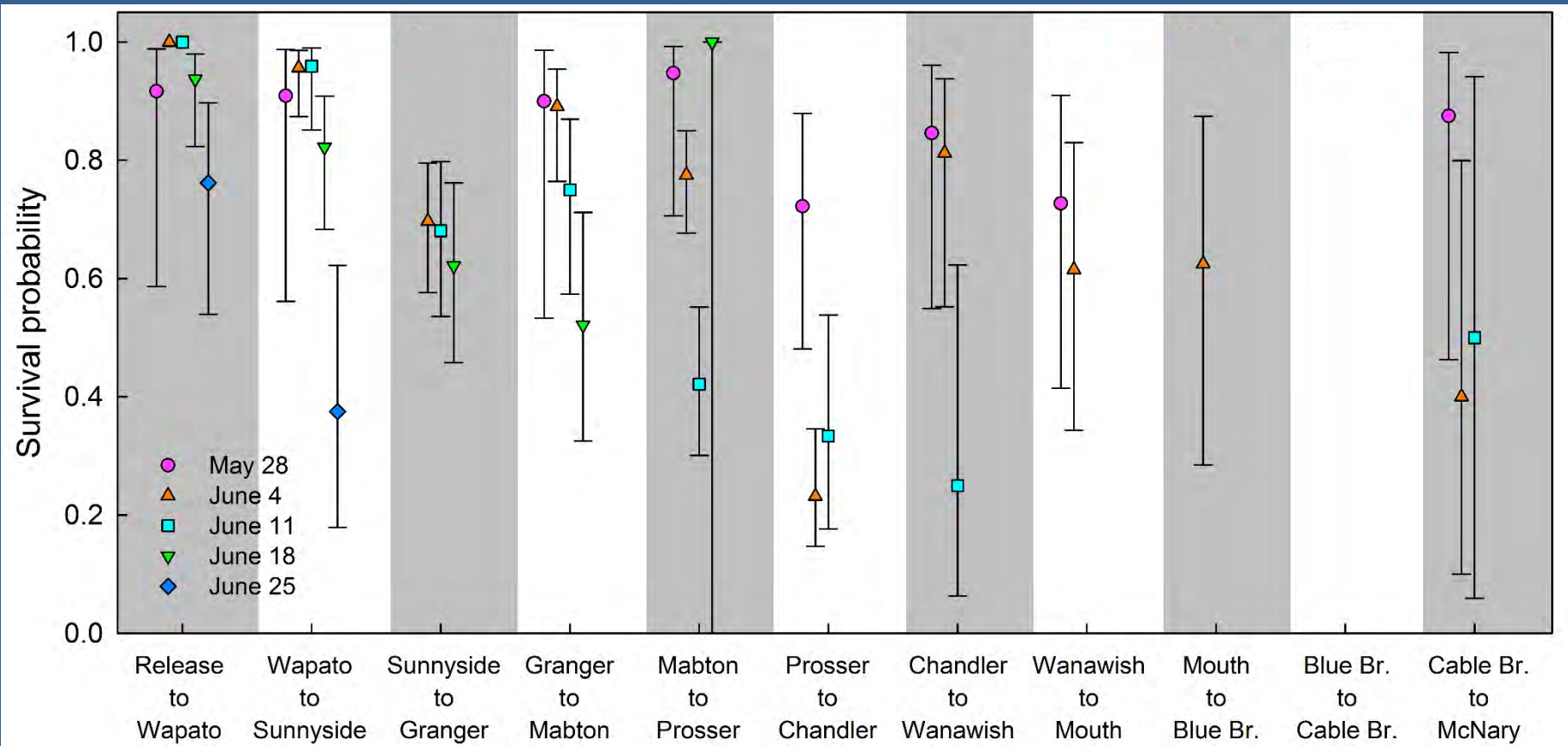
Steelhead



Preliminary results do not cite

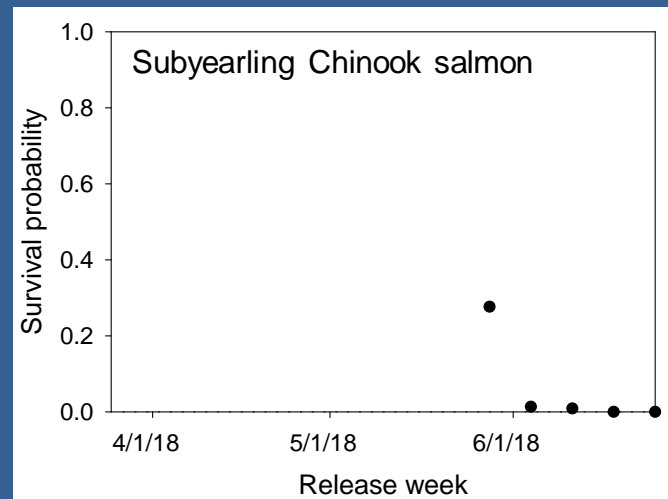
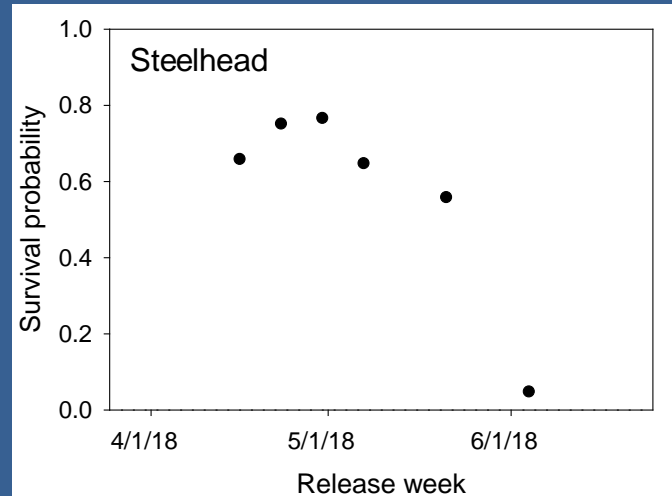
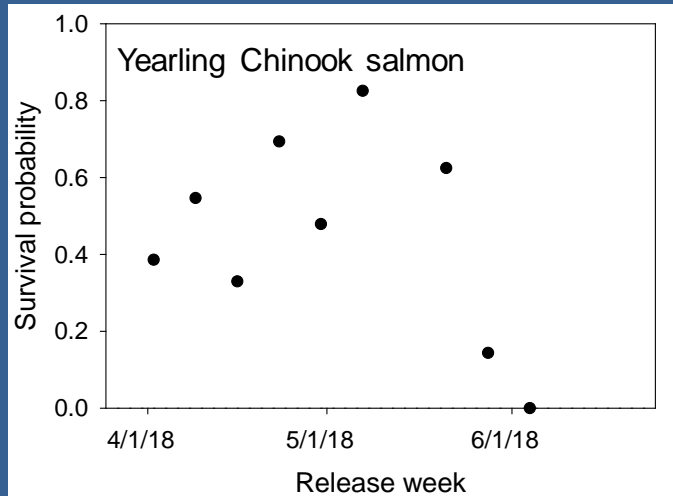
Survival Estimate: By Release Week

Subyearling Chinook salmon

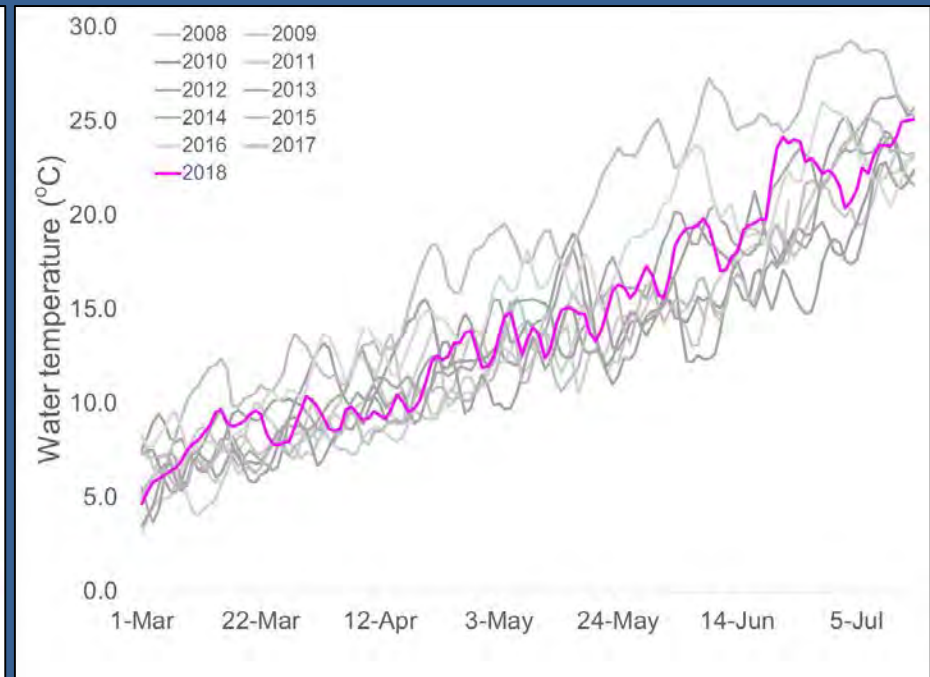
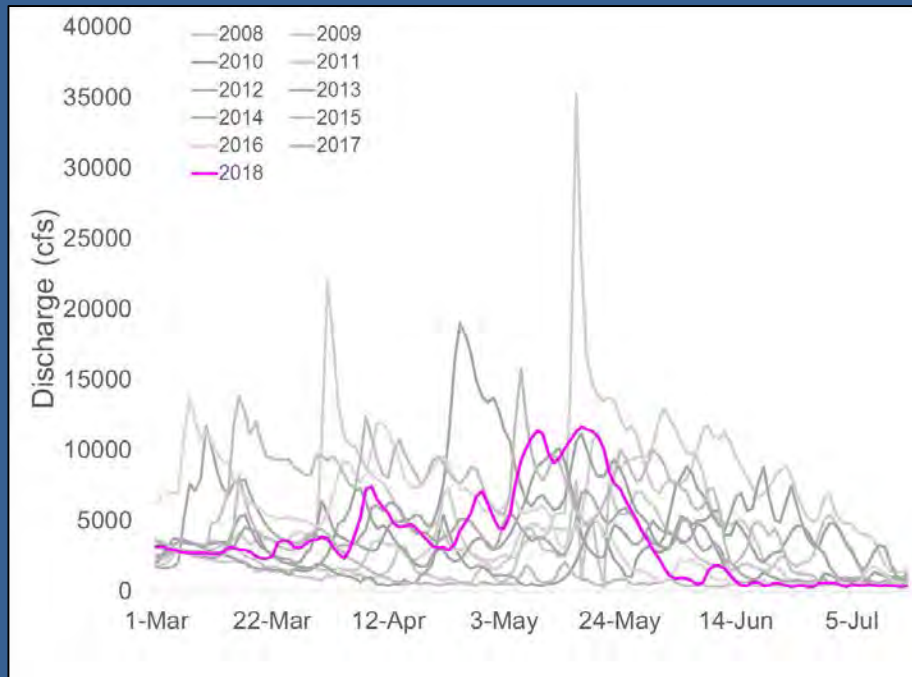


Preliminary results do not cite

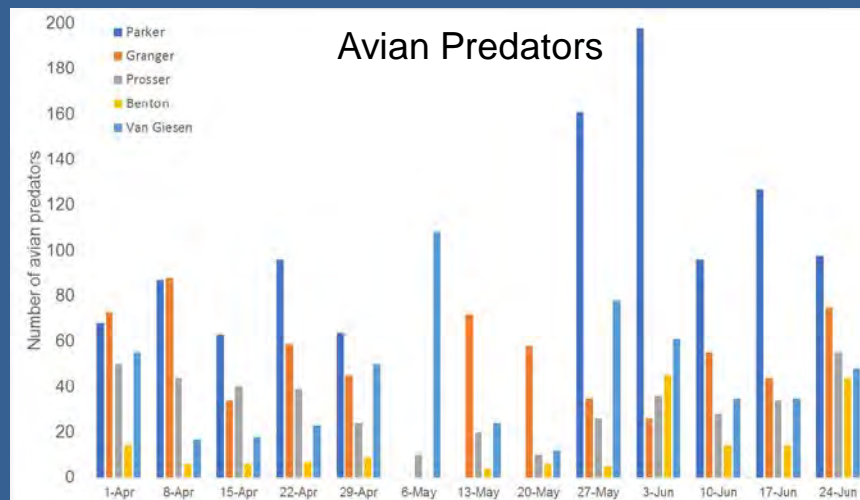
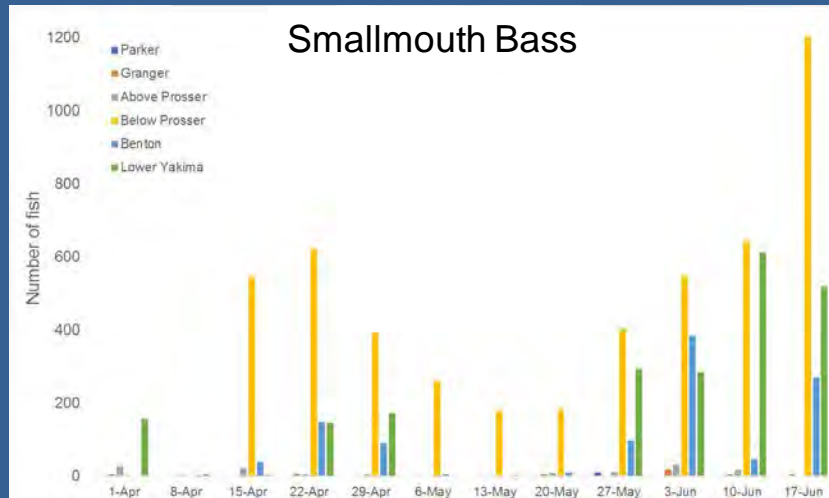
Cumulative Survival to McNary Dam



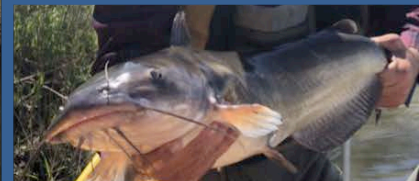
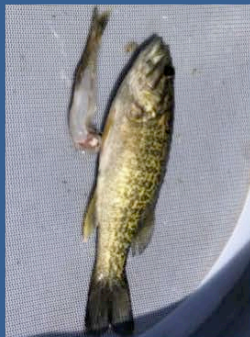
Discharge and Temperature Effects?



Predator Monitoring Results



Predator Monitoring Results



Questions

