



2018 Sockeye Salmon Movement Study

Tobias Kock, Brian Saluskin, and Richard Visser

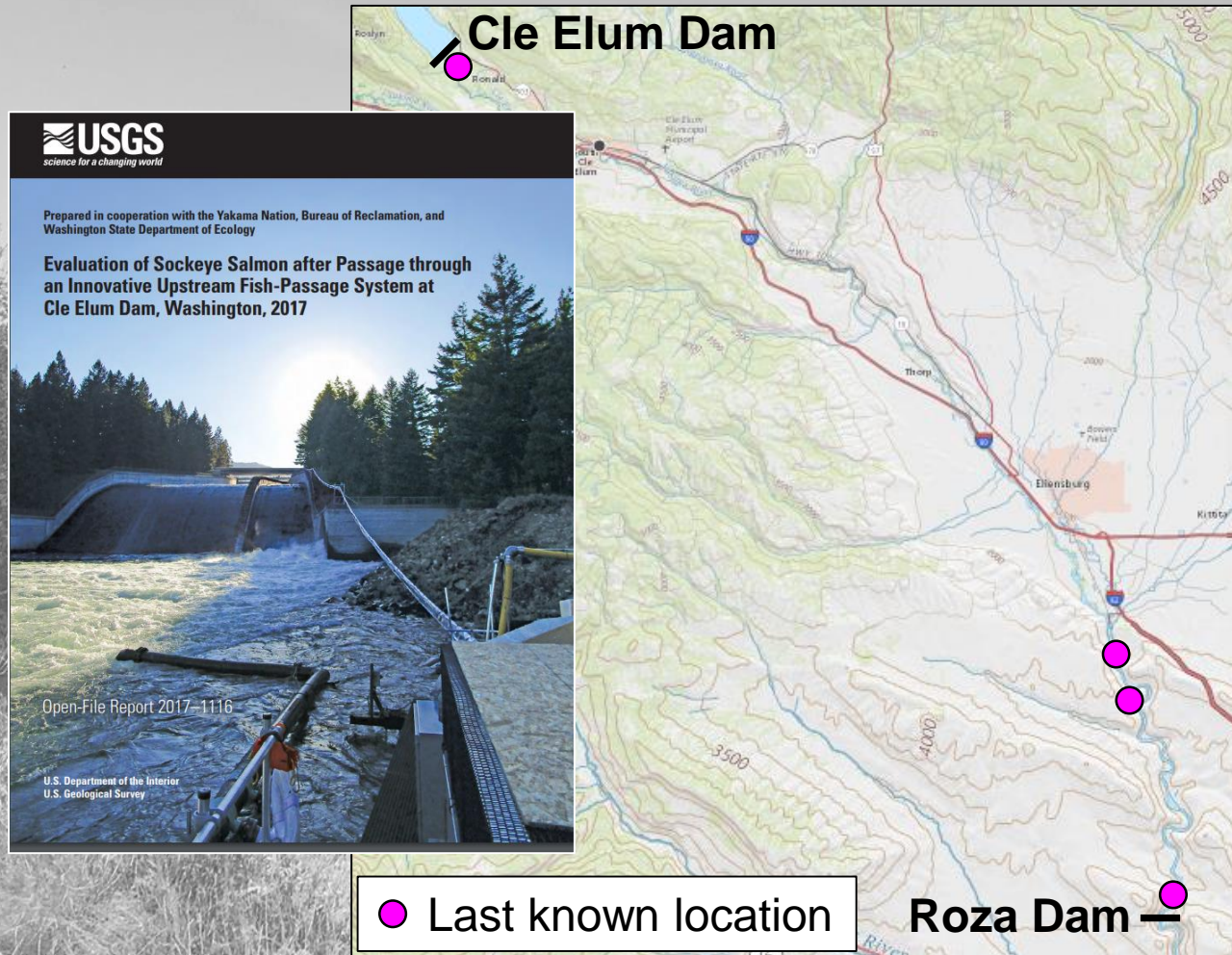
Migration Survival of Chinook Salmon, Steelhead & Lamprey in the Lower Yakima River

Tobias Kock, Joel Llamas, Michael Porter, Patrick Monk, Russell Perry

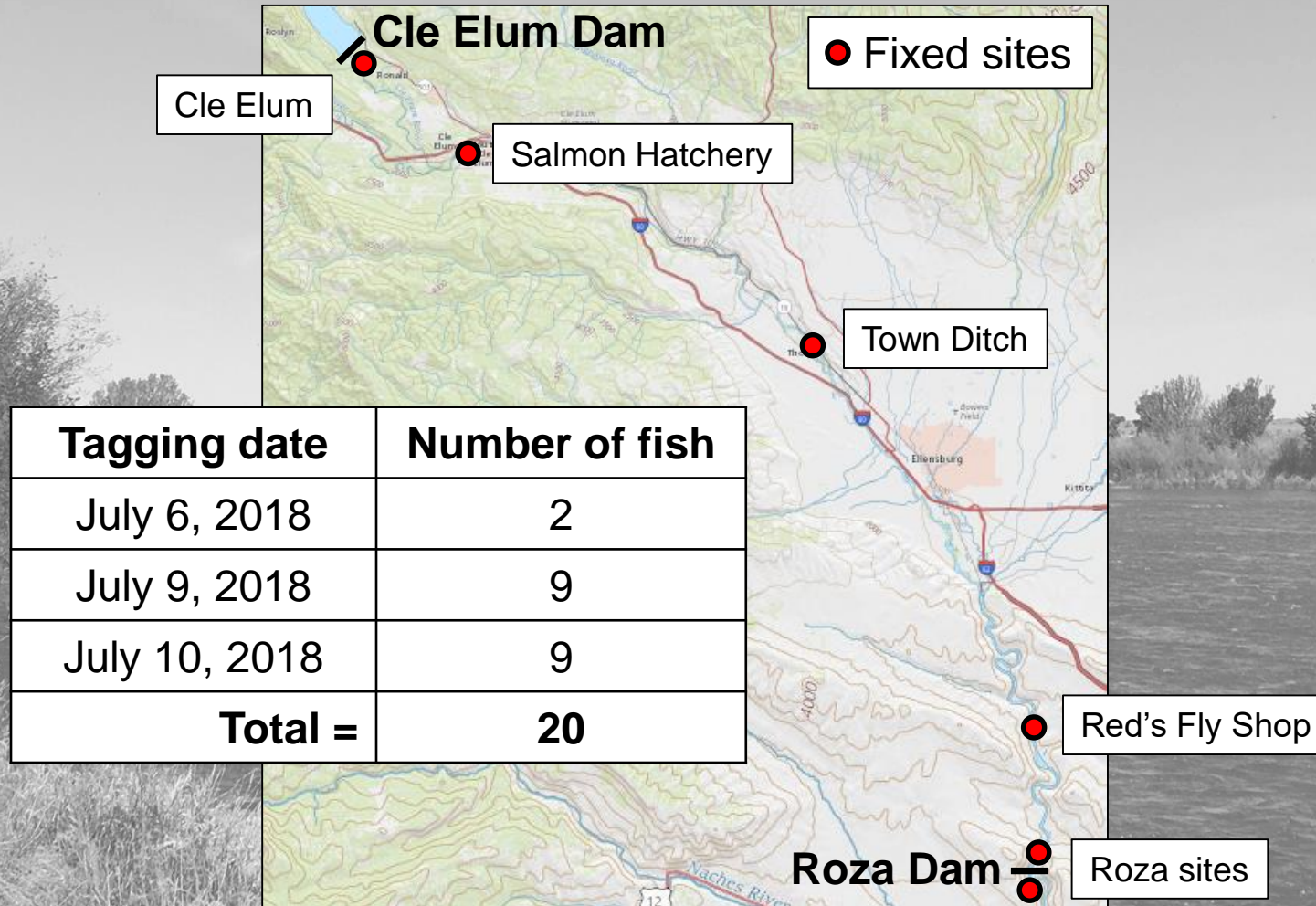
June 13, 2019

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

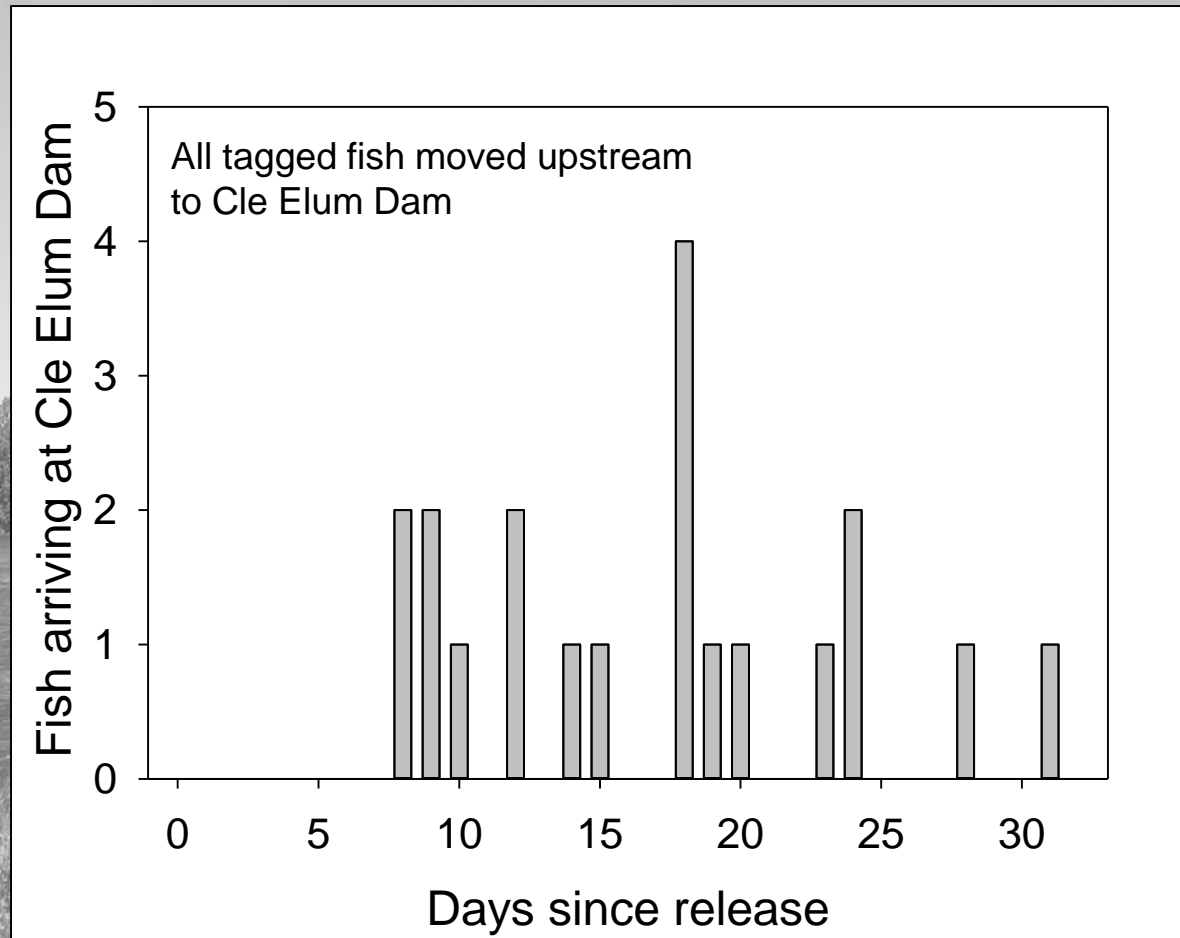
Roza Dam to Cle Elum Dam: 2017



Roza Dam to Cle Elum Dam: 2018



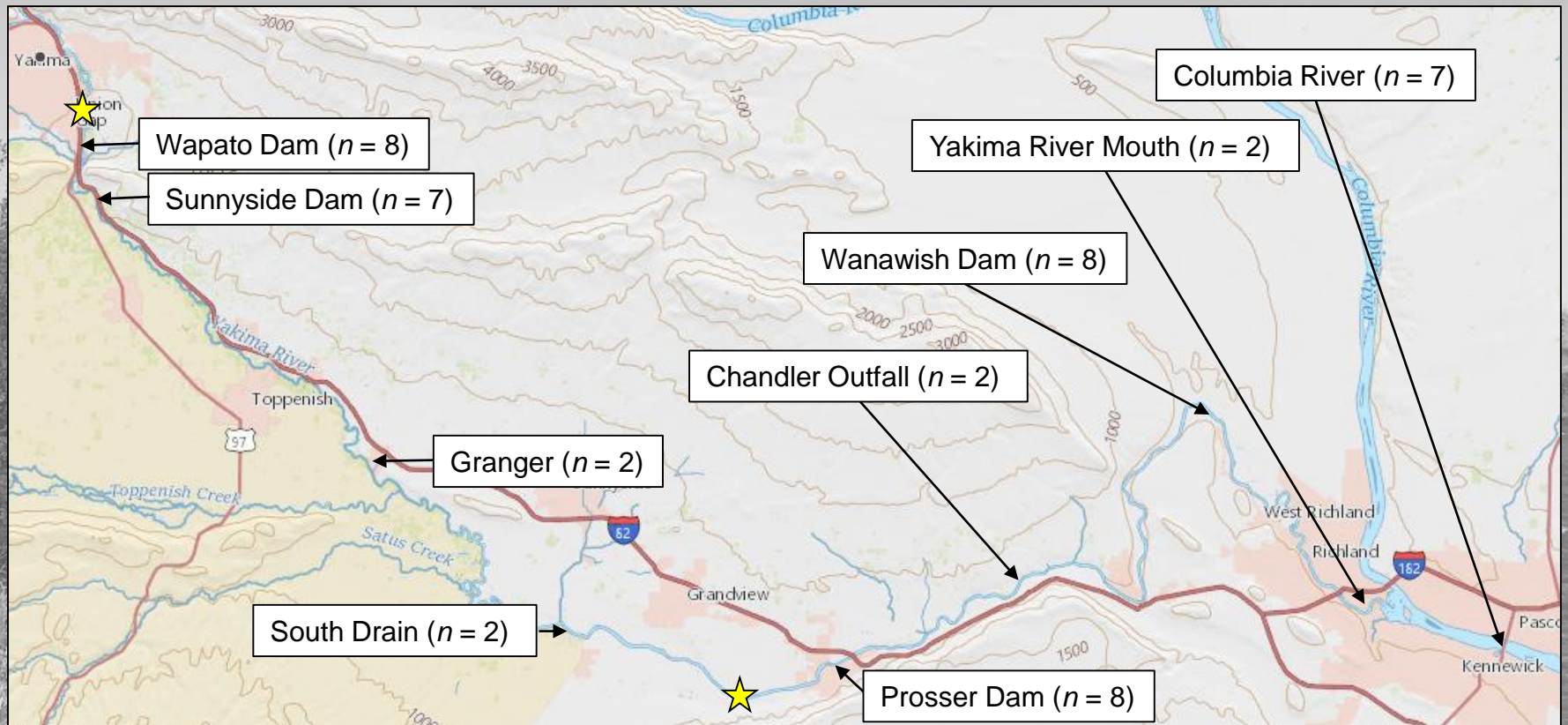
Roza Dam to Cle Elum Dam: 2018



Delay at Town Ditch

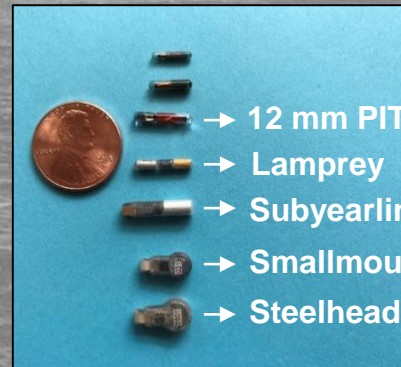


Lower River Study: Detection Sites



Lower River Study: Tagging and Release

Species	2018	2019
Yearling Chinook salmon	429	590
Steelhead	313	350
Subyearling Chinook salmon	344	393
Lamprey	97	132
Adult smallmouth bass		10



- 12 mm PIT tag
- Lamprey
- Subyearling Chinook salmon
- Smallmouth bass
- Steelhead, yearling Chinook salmon

Chandler Canal Paired Releases

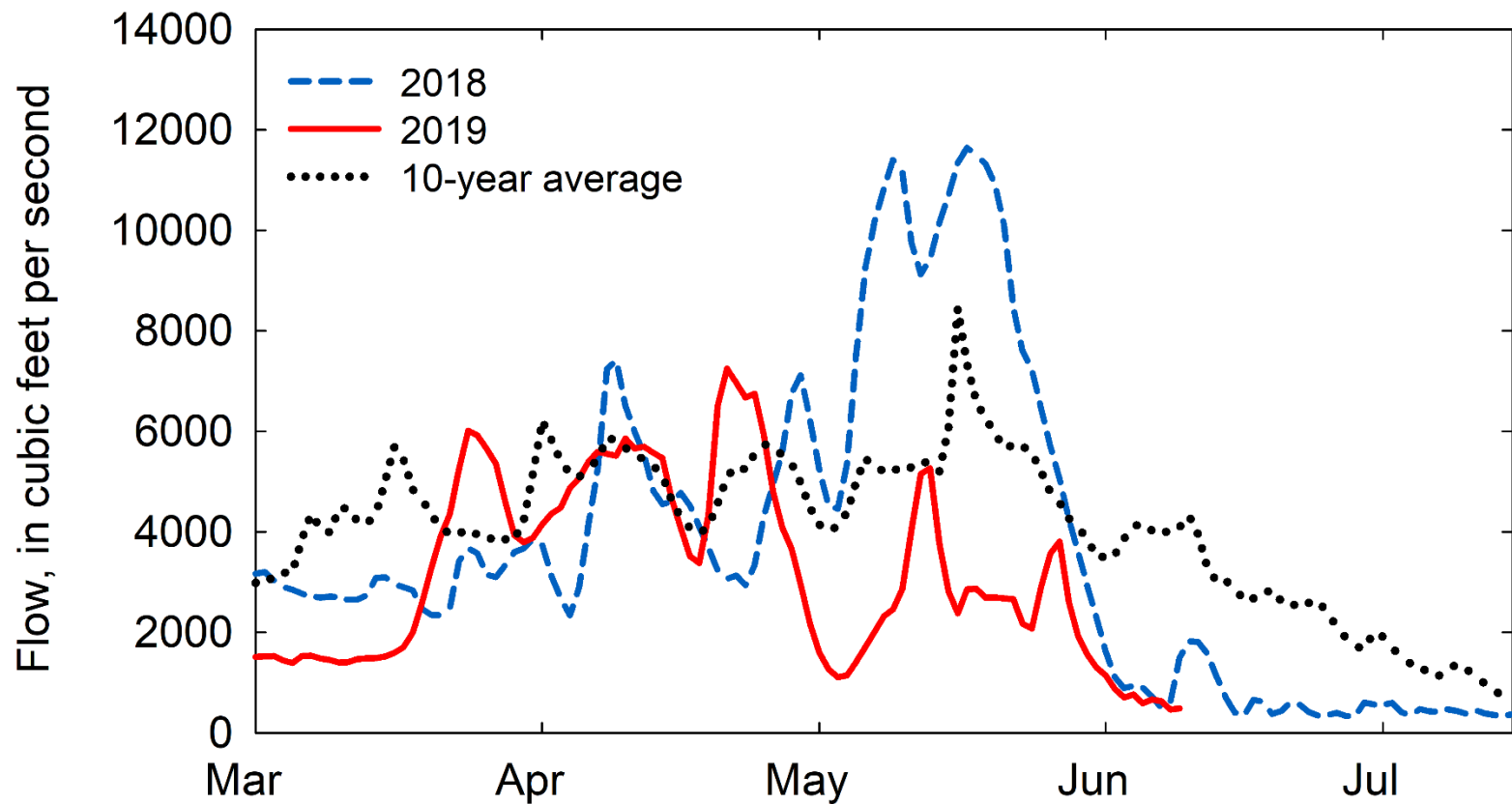
- 240 yearling Chinook
- 5 weekly releases (1-Apr to 20-May)



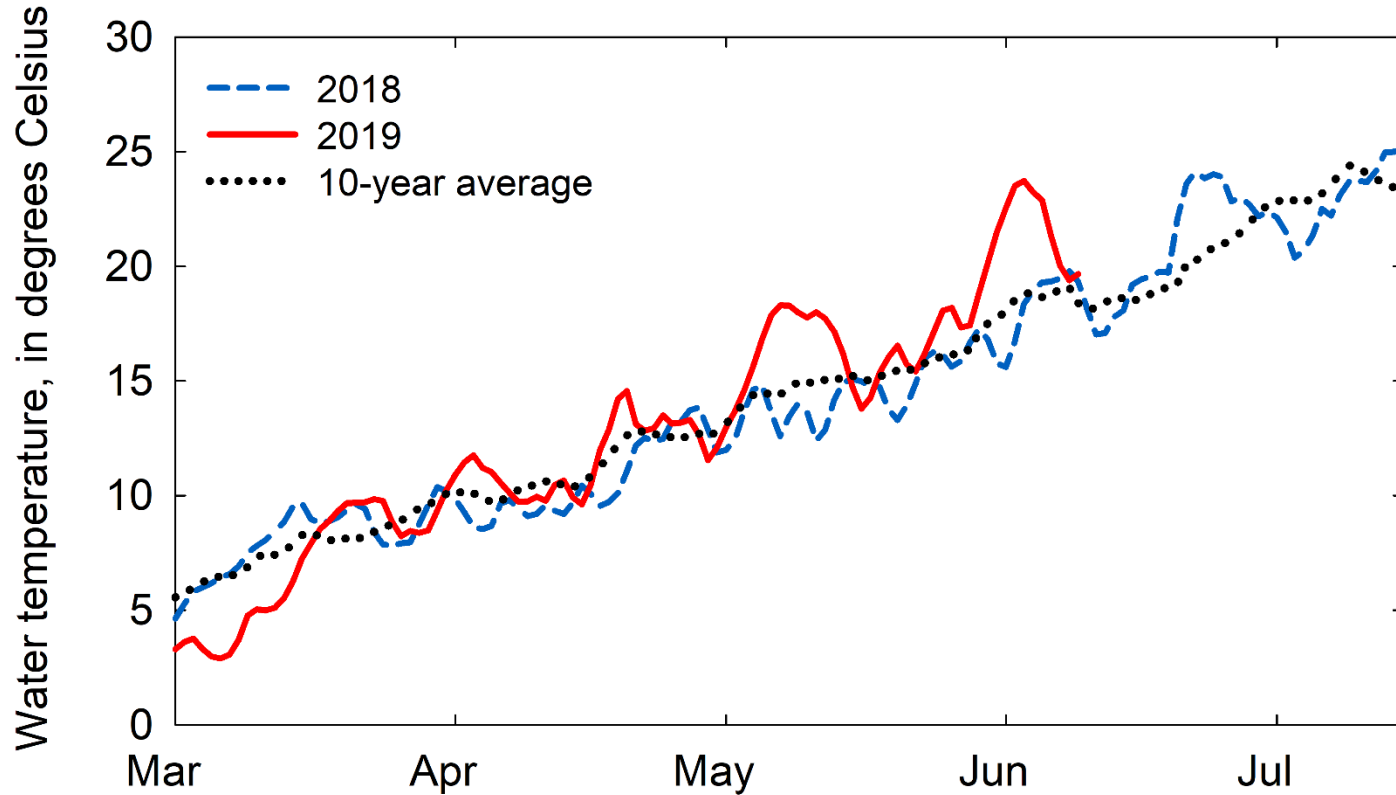
Smallmouth Bass Releases



Discharge

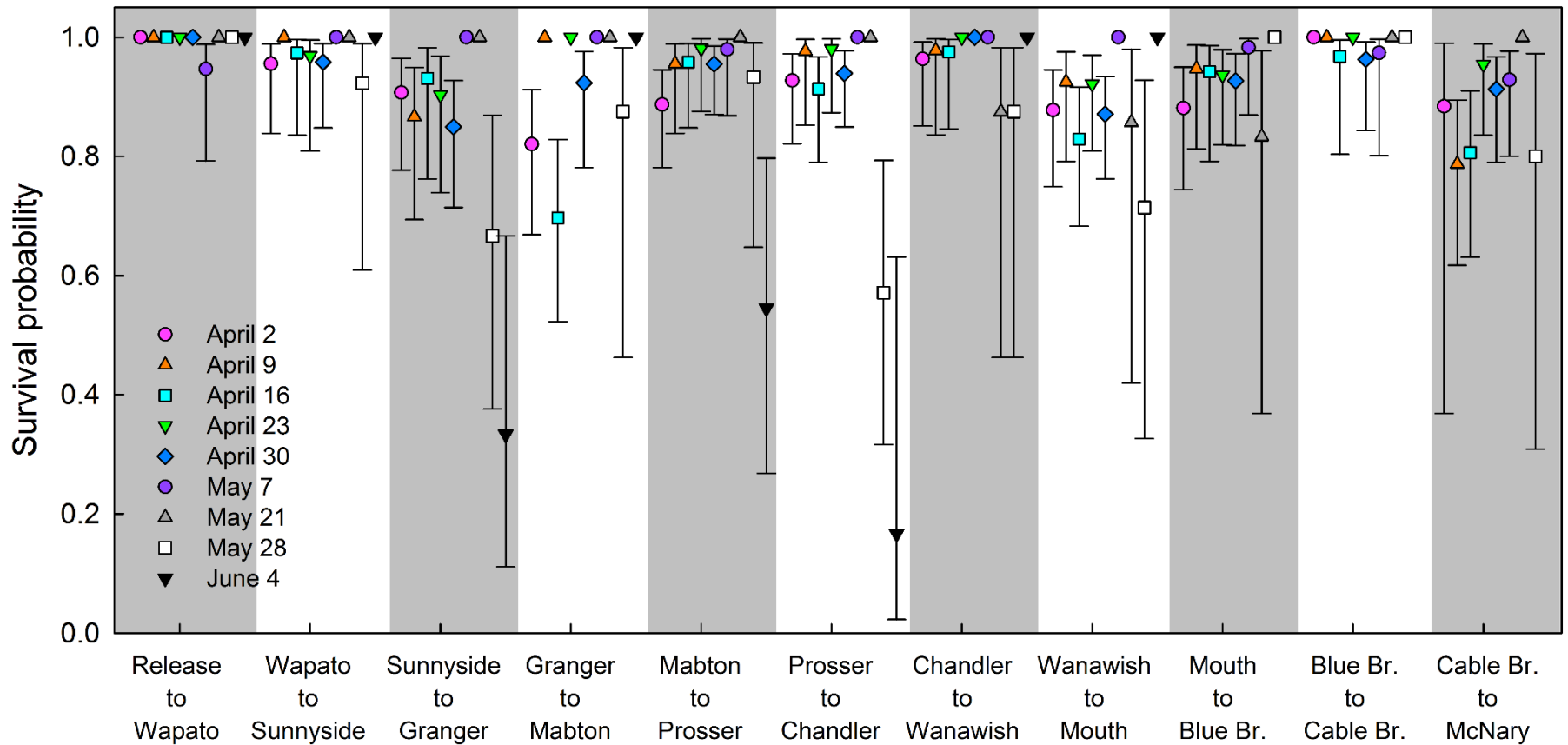


Temperature



2018 Survival Estimates

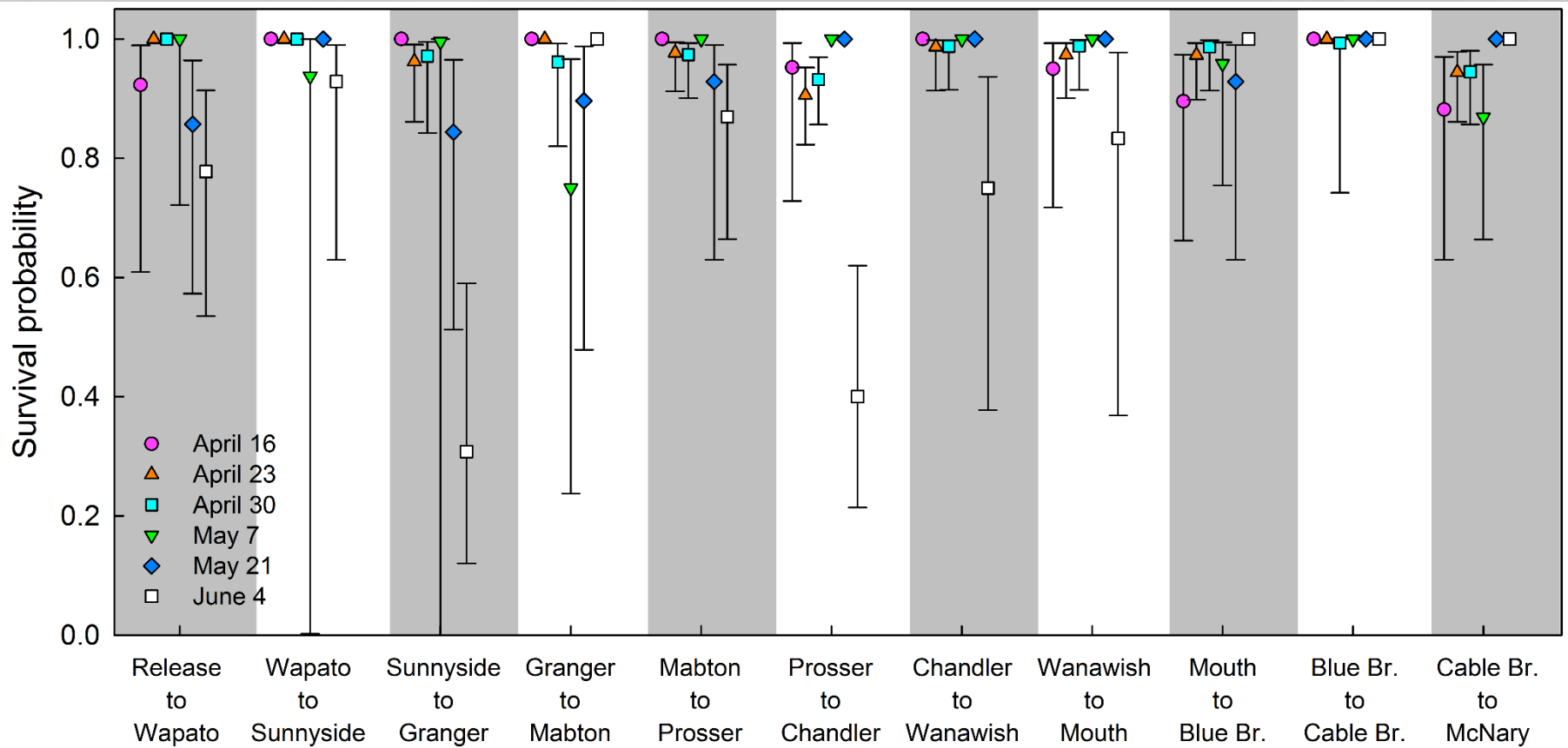
Yearling Chinook salmon



Preliminary results do not cite

2018 Survival Estimates

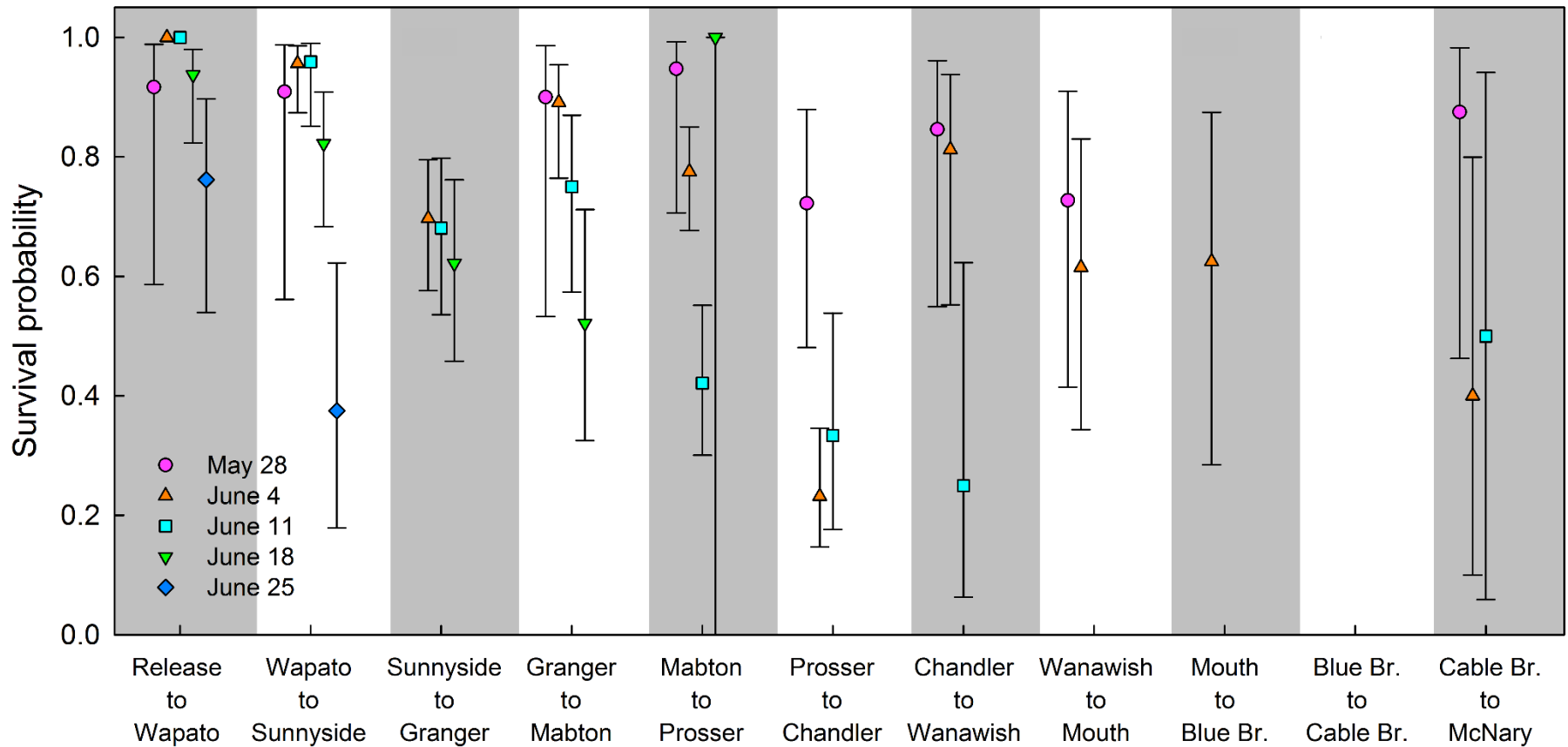
Steelhead



Preliminary results do not cite

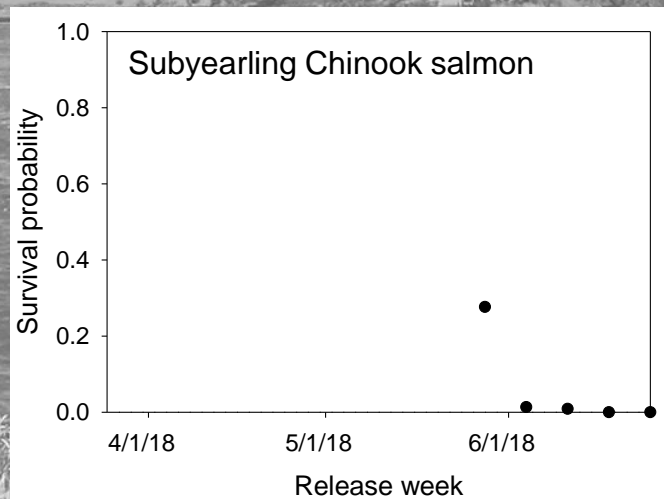
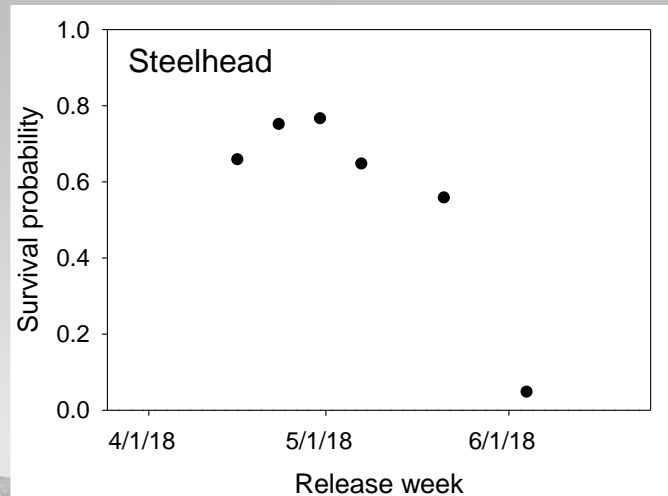
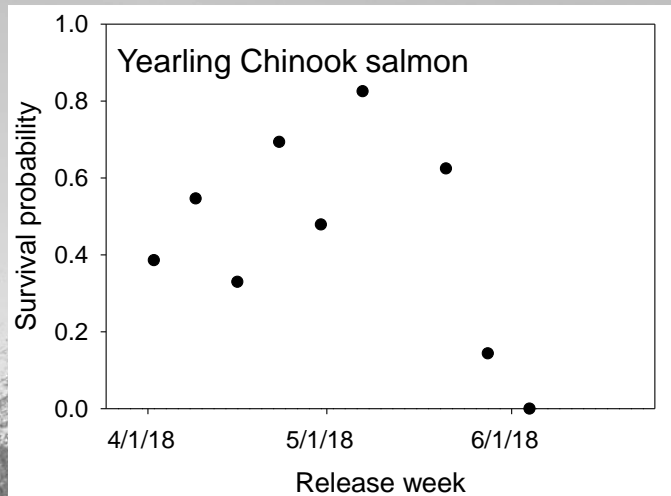
2018 Survival Estimates

Subyearling Chinook salmon

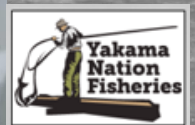


Preliminary results do not cite

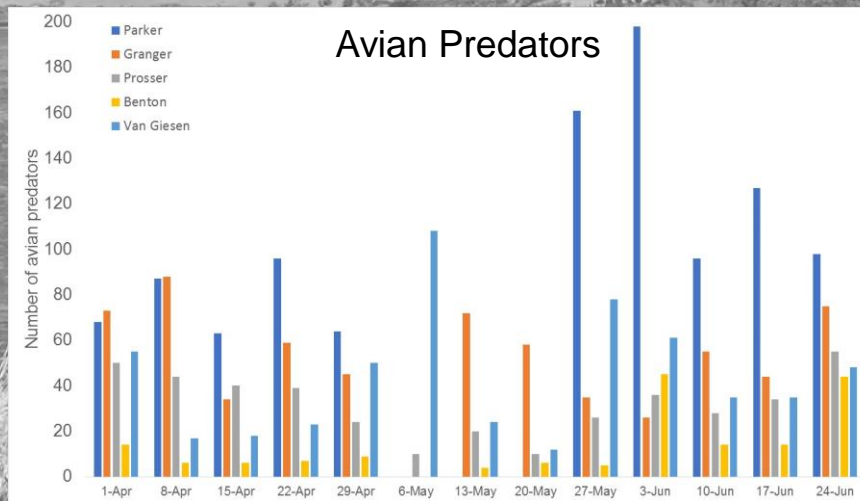
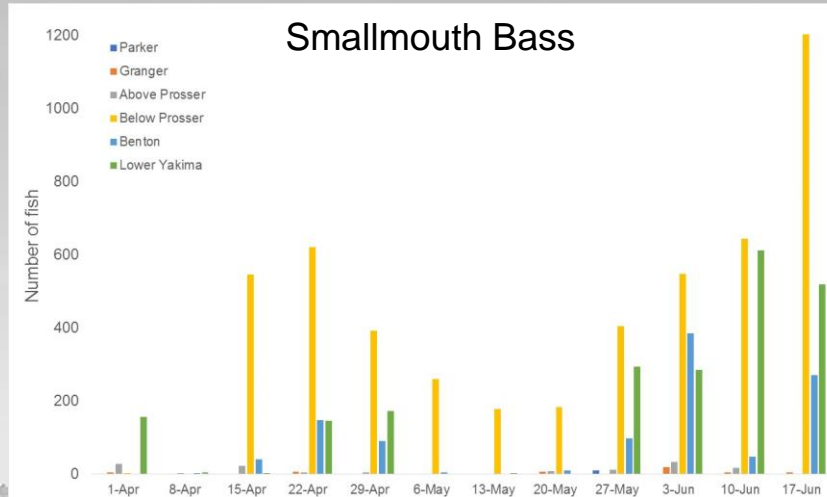
Cumulative Survival to McNary Dam



Predator Monitoring Results

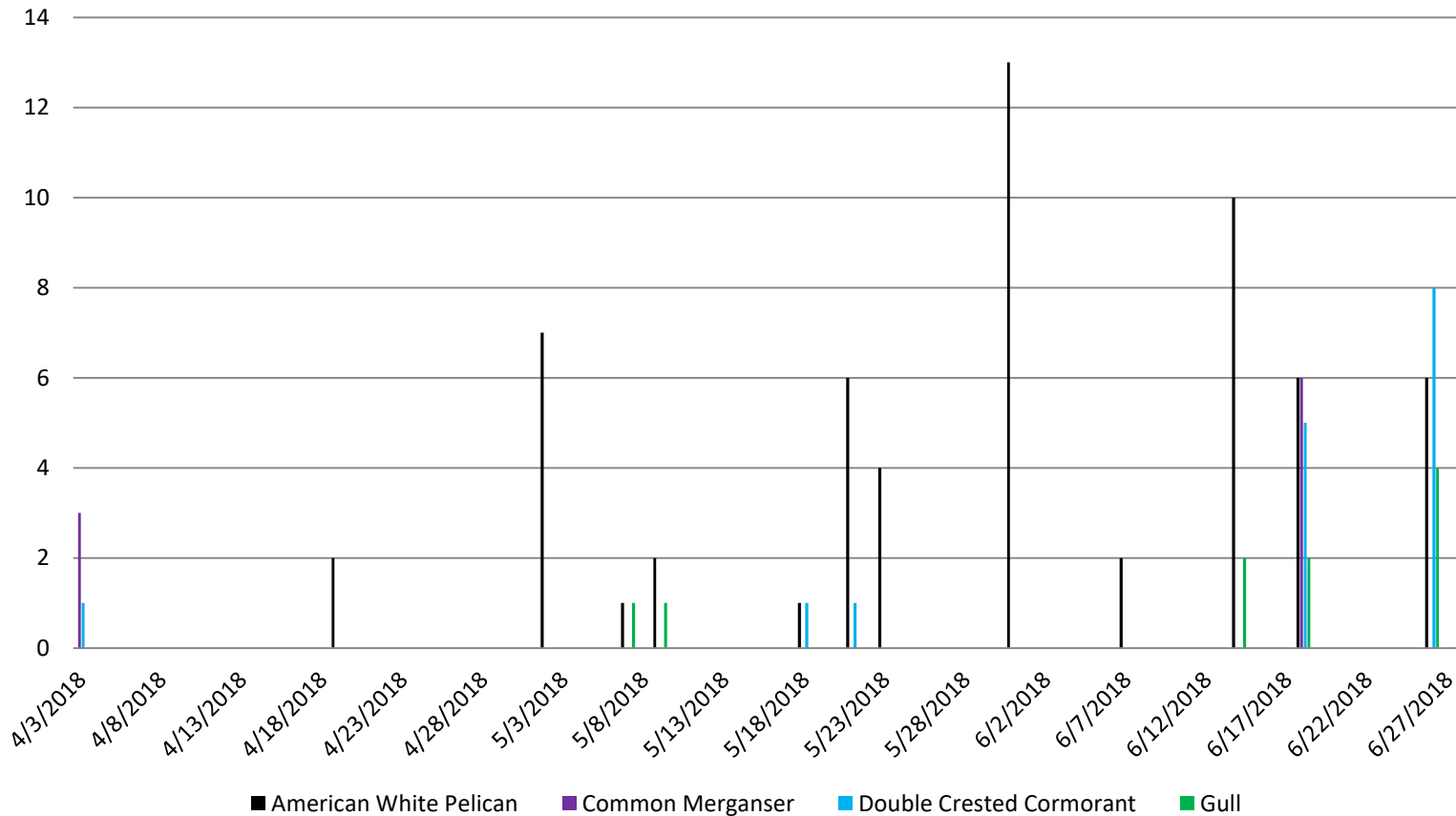


Predator Monitoring Results



Horn Rapids Hot Spot

Avian Predators at Horn Rapids

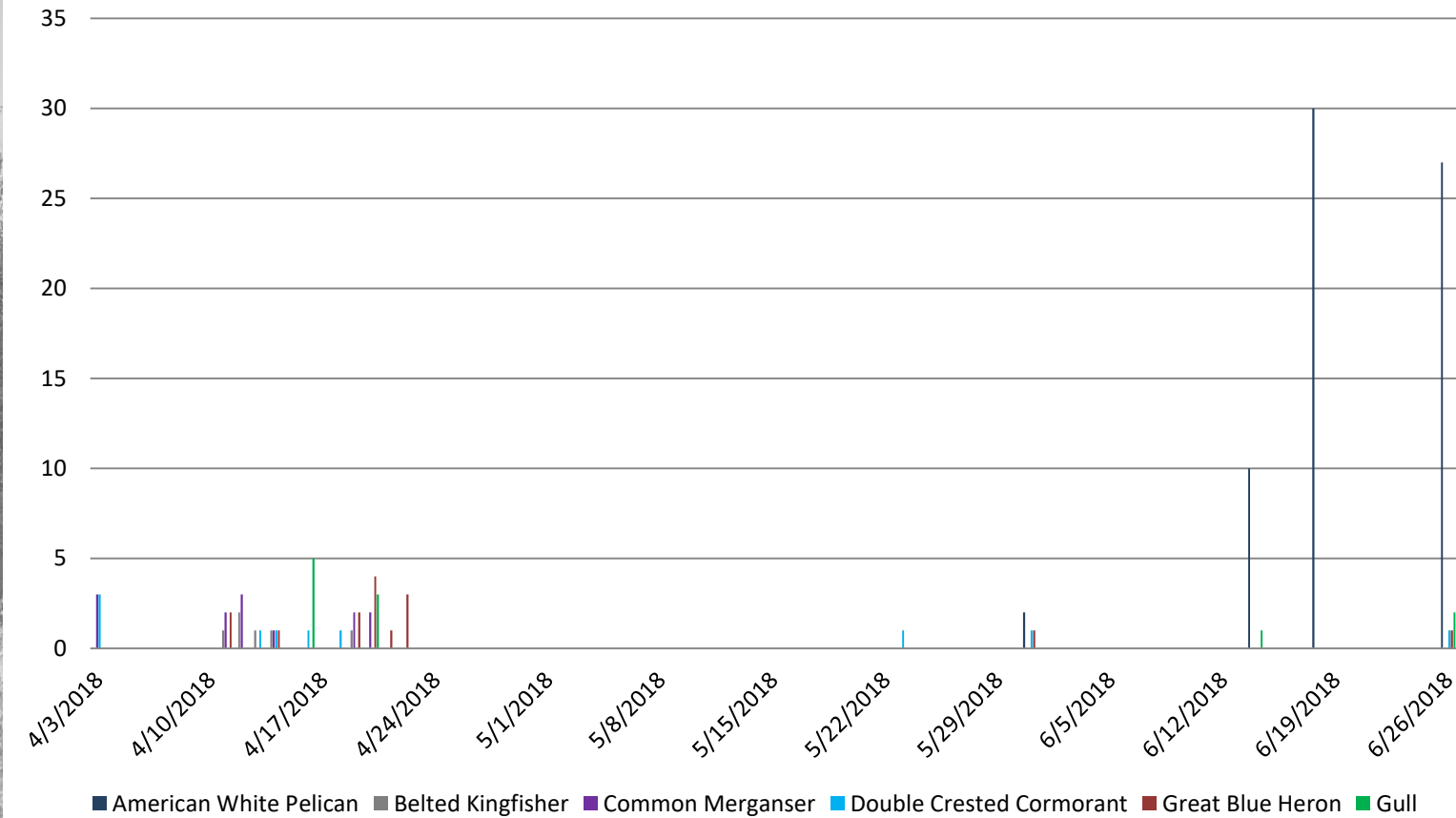


Avian Hot Spot Results



Prosser/Chandler Hot Spot

Avian Predators at Chandler Outlet





Questions

