

Survival of razorback sucker in the MSCP Reach 3

Patterson, Karam, Kesner and Marsh



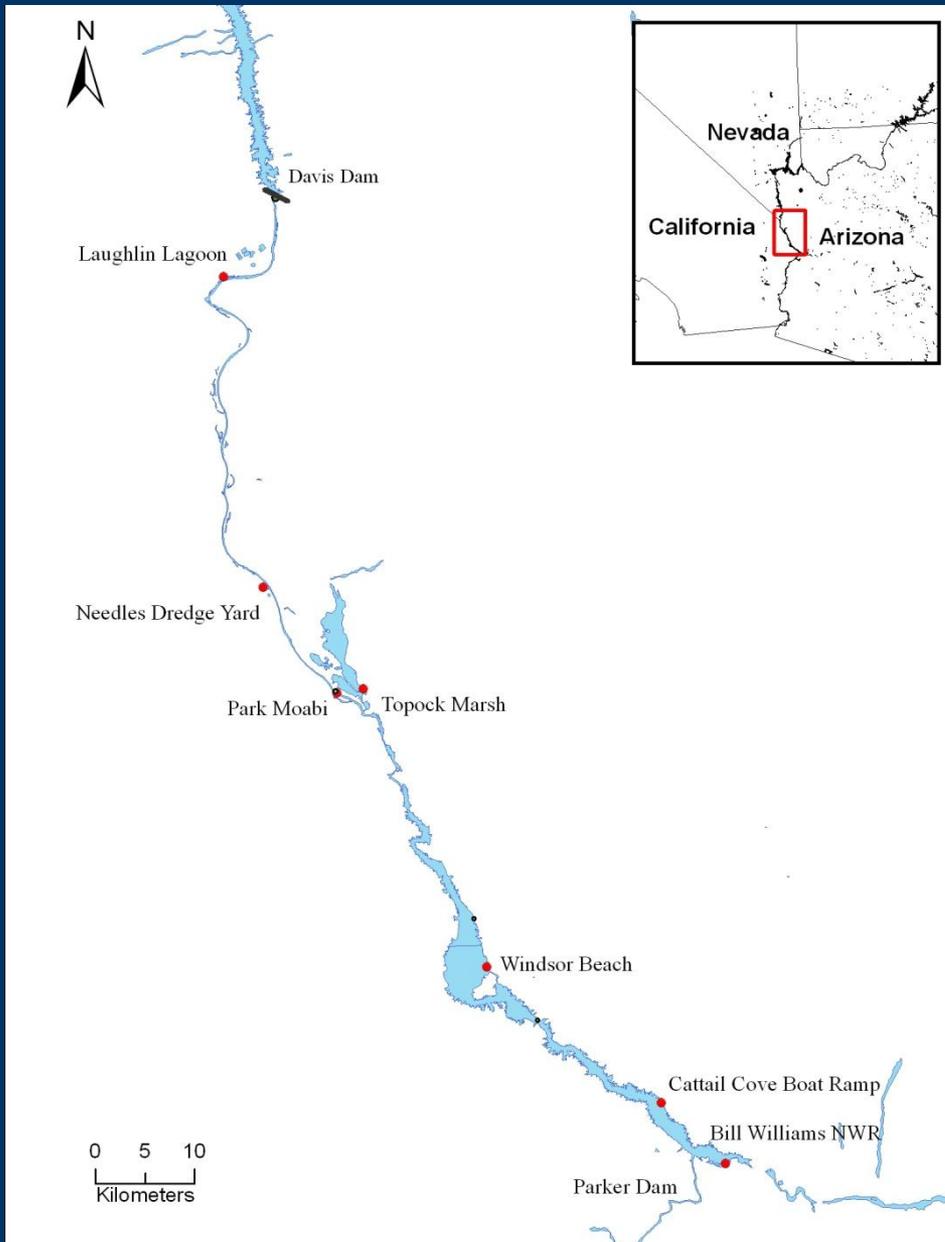
Razorback sucker *Xyrauchen texanus*

- Endangered
 - USFWS 1991
- Species of concern
 - LCR MSCP
- Stocking programs
- Lake Mohave focus



Reach 3

- Beyond Mohave
- 38,000 razorback
– >300 mm



Monitoring in Reach 3

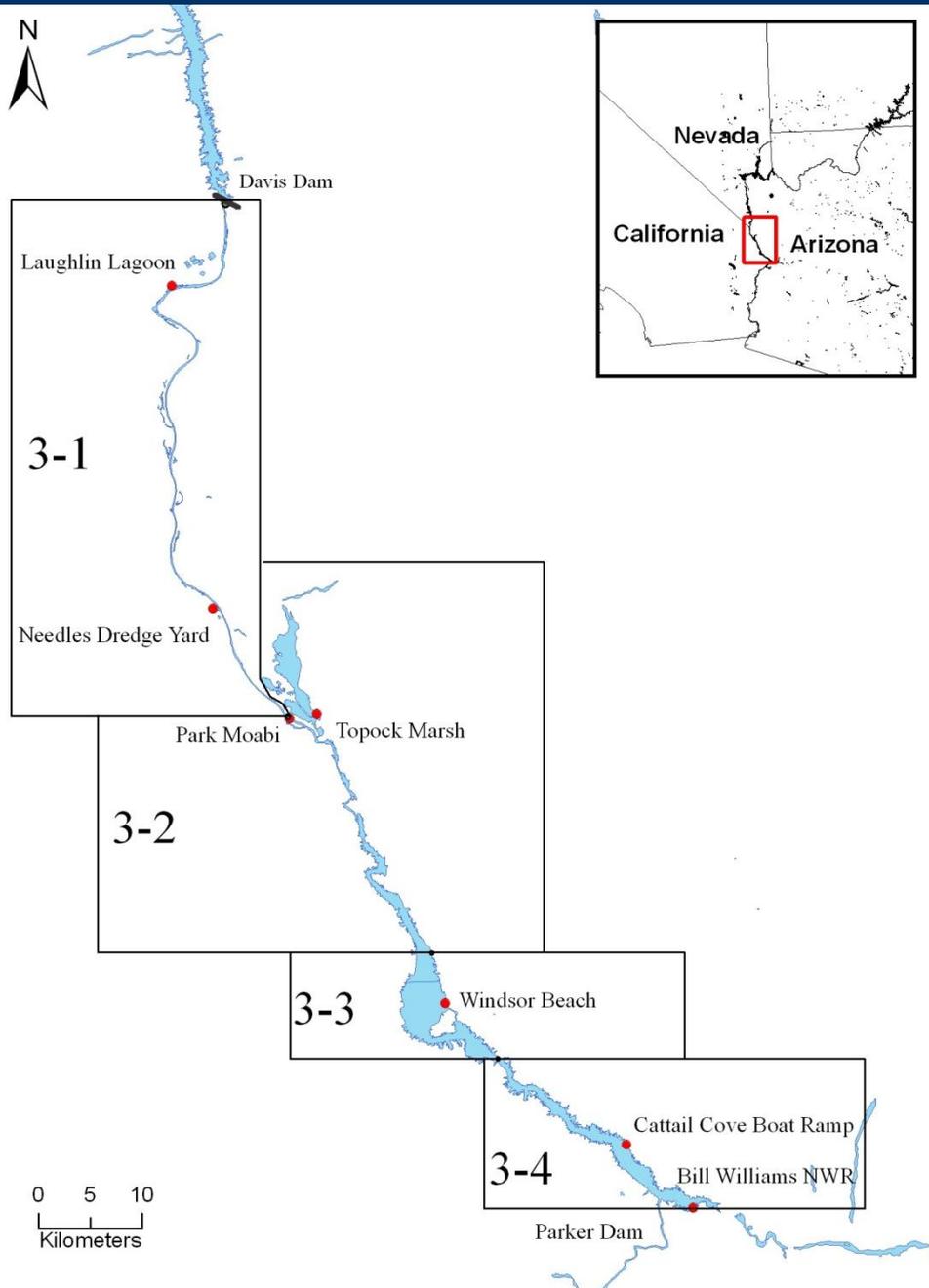
- Began in 2006
- Joint effort
 - Netting/e-fishing
- Low capture rate
 - <3% cumulative
 - = low recapture
- A lot of questions



Current project

- Remote PIT scanners
- Combine data resources
- Assess
 - Current population
 - Spatial and temporal effect

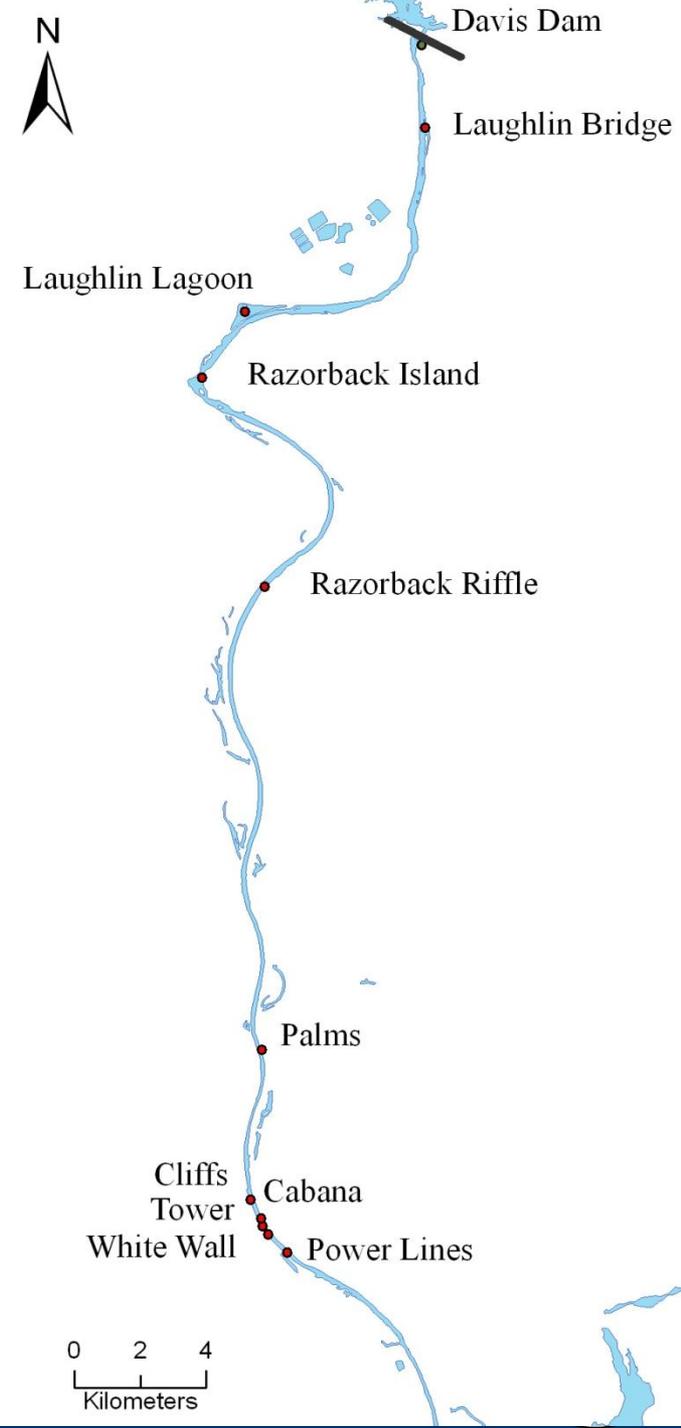




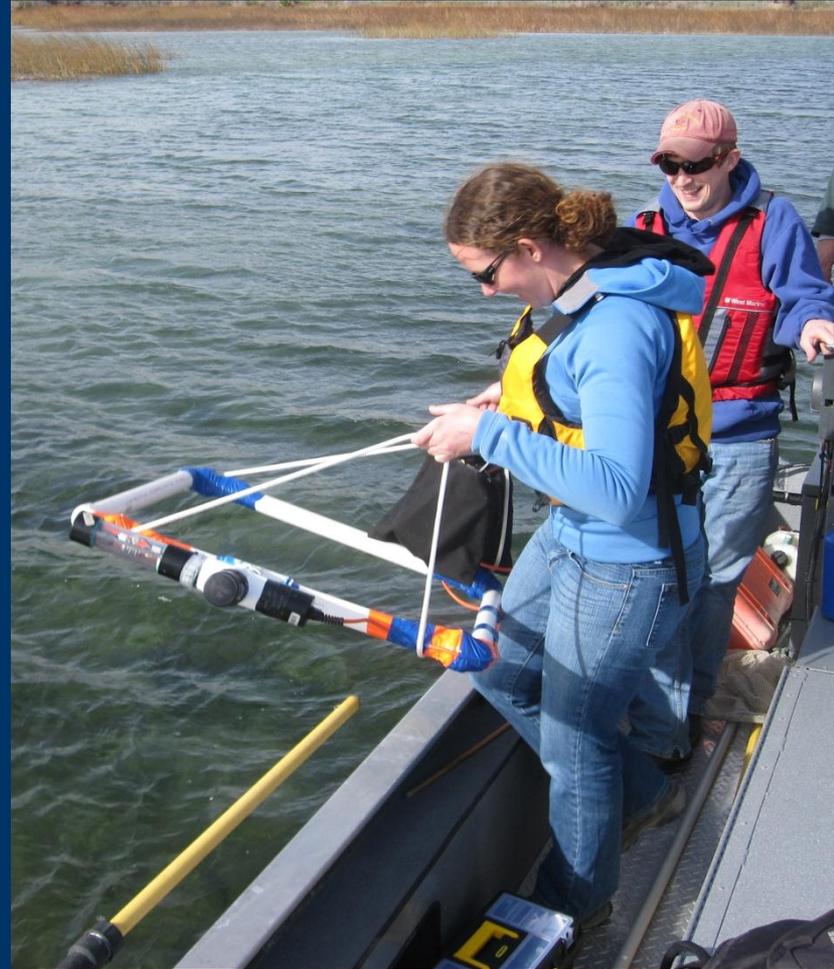
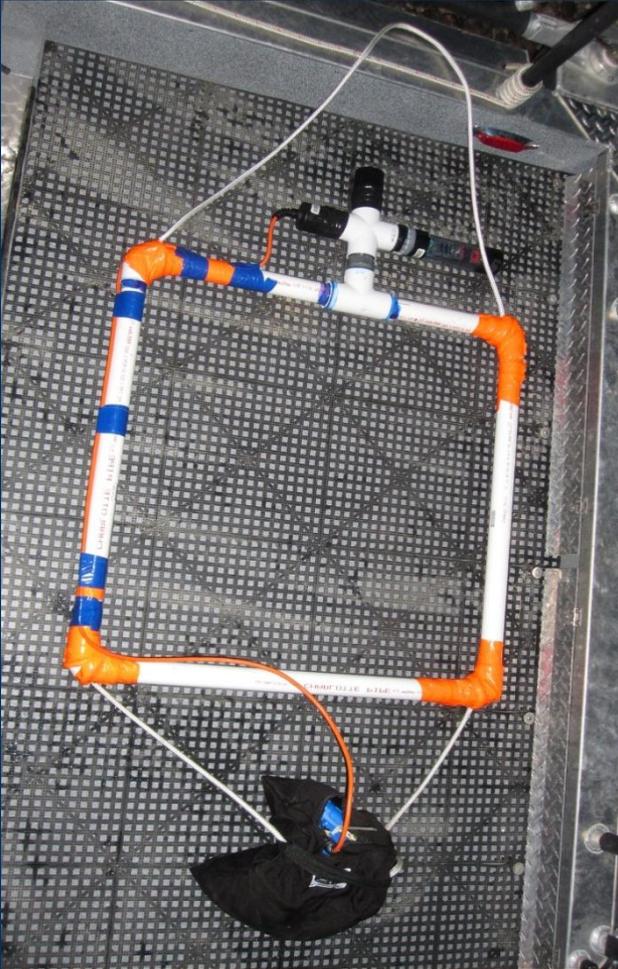
Area of focus

- Reaches
- Stocking
- Monitoring
 - Round-up
 - PIT scanning

Reach 3-1



Remote PIT scanning



Data

2006-2012

- Bi-annual round-ups
 - Feb & Nov
- 1755 unique contacts

2012

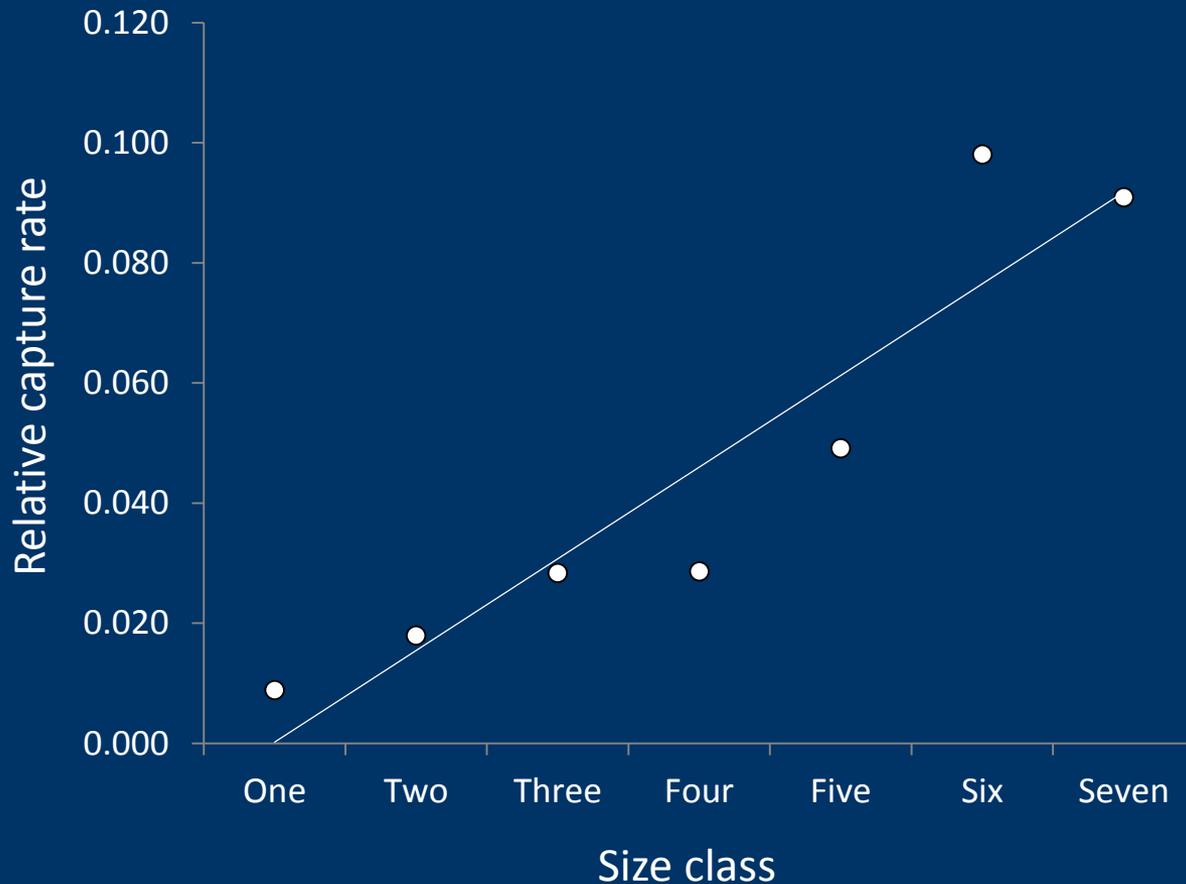
- 7 PIT scanning trips
 - Jan-April
- 763 unique contacts

Population estimate

- Chapman modified Petersen estimate
 - Combination of netting and scanning data
 - 118 and 557 individuals
- Estimate: 2659 razorback
 - 2069 to 3414, 95% confidence interval
- Compared to 2010 estimate of 1400
 - 894 to 2196, 95% confidence interval



Survival of the biggest

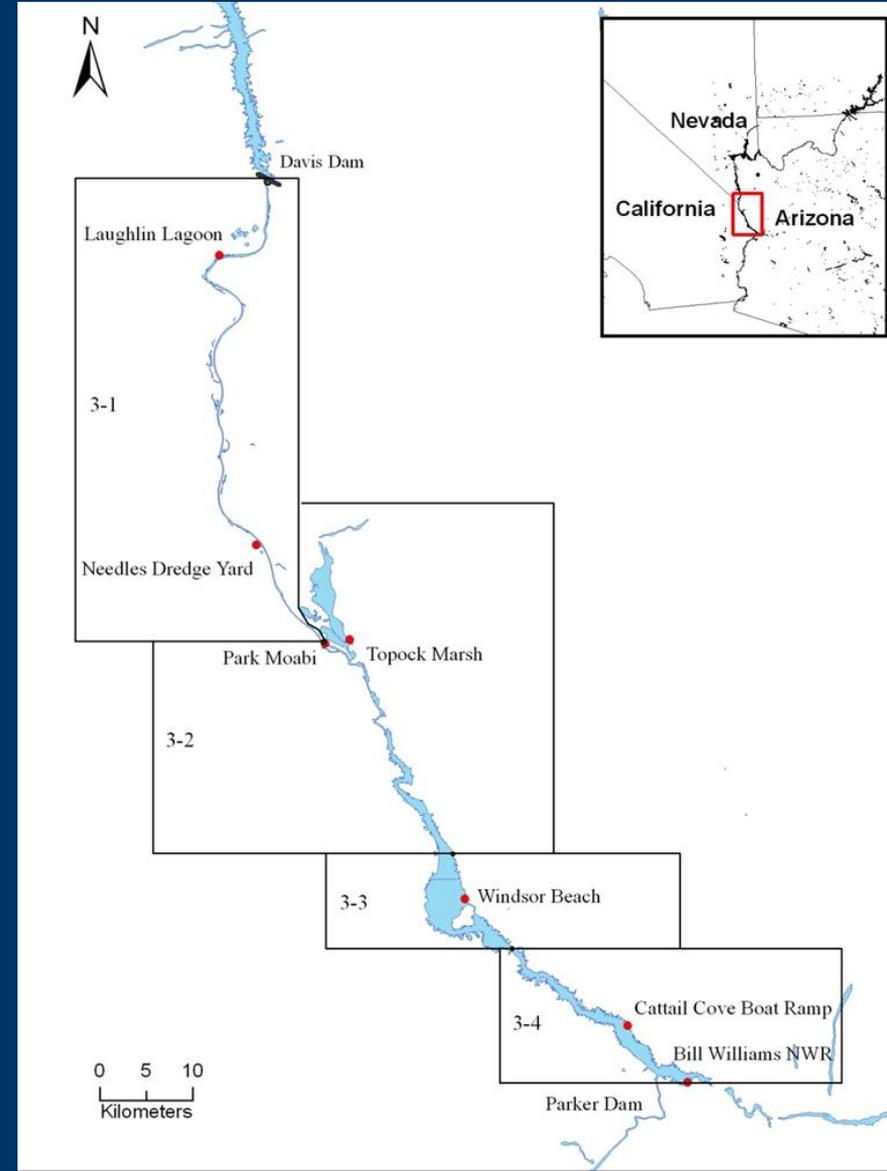


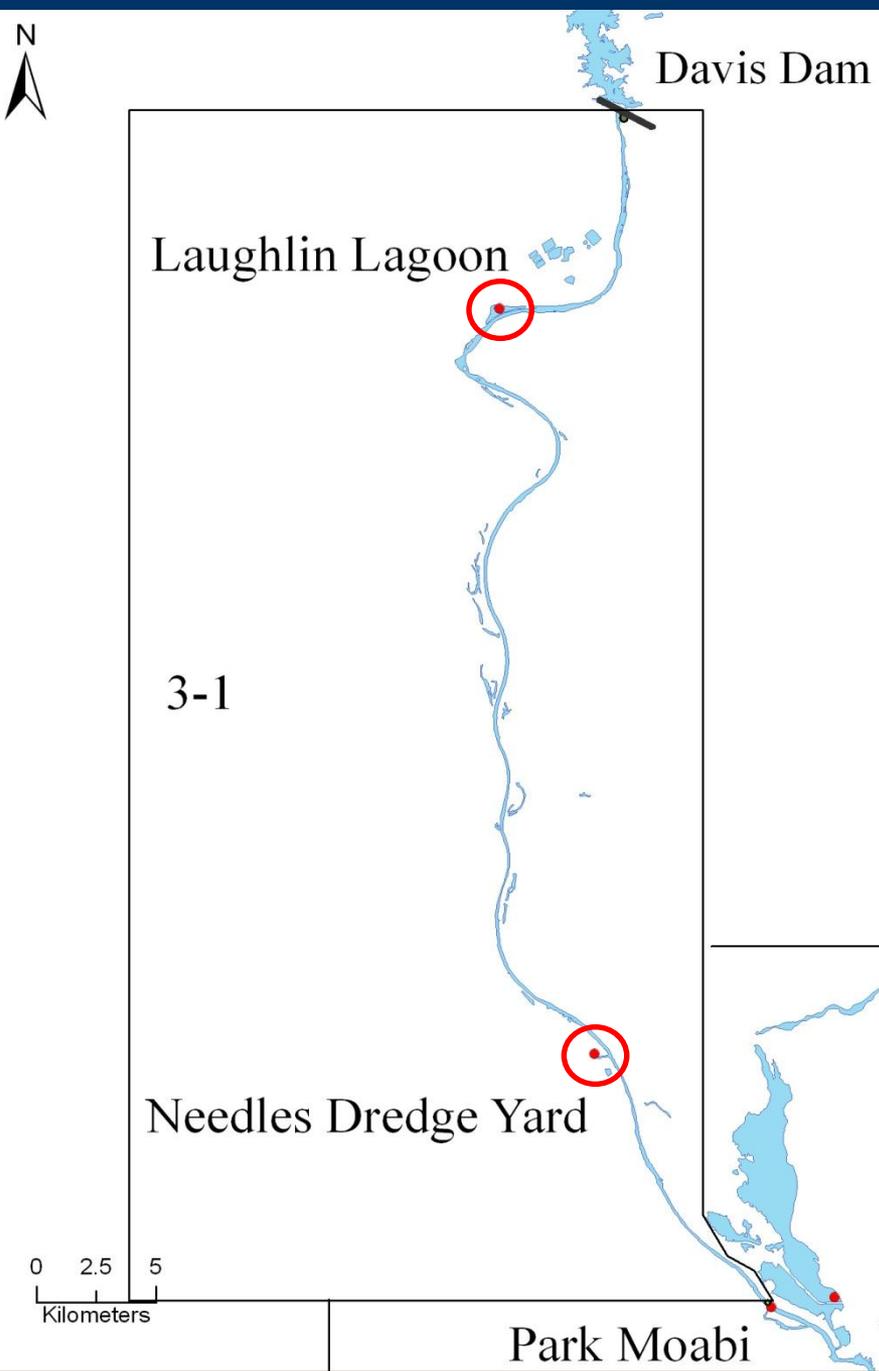
- Size known to be important
- No different R3
 - 1 yr min post release
 - $r = 0.93$



Location of stocking

- Widespread
 - Stocking
 - Netting
- PIT scanning
 - Zone 3-1
- No difference in contact probability
 - ANCOVA $P=0.32$





Location of stocking

- Variation within single zone
 - Laughlin Lagoon (10263)
 - 0.84 % contacted
 - Needles (4214)
 - 10.42% contacted



Season of stocking

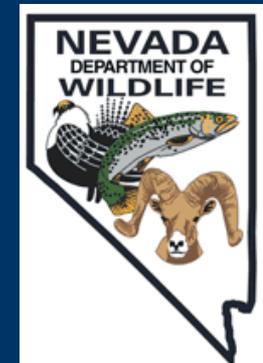
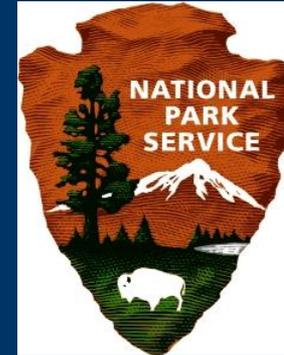
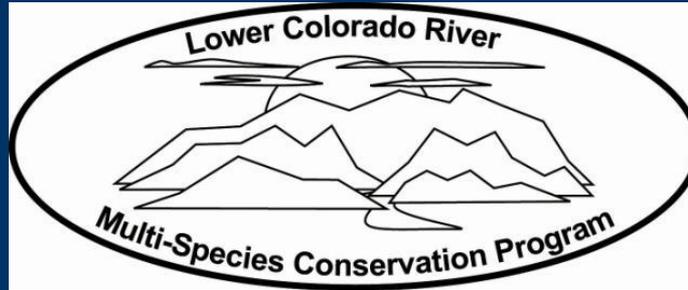
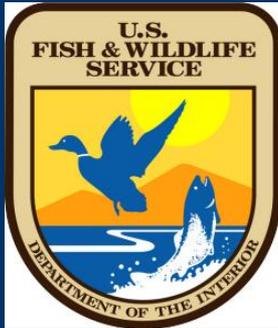
- Spring stockings
 - 3.2% contact rate of those released
- Fall stocking
 - 1.4% contact rate



Future

- First Year
- Increasing effort (spatially, temporally)
- Additional data
 - MARK

Acknowledgements



Questions?

