



Lower Colorado River Multi-Species Conservation Program

Balancing Resource Use and Conservation

Flannelmouth Sucker Population Status and Habitat Use in the Colorado River Below Davis Dam

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Background

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- Not historically common
- 611 fish stocked in 1976 (AZGFD)
- Established self-sustaining population ~2400 adults



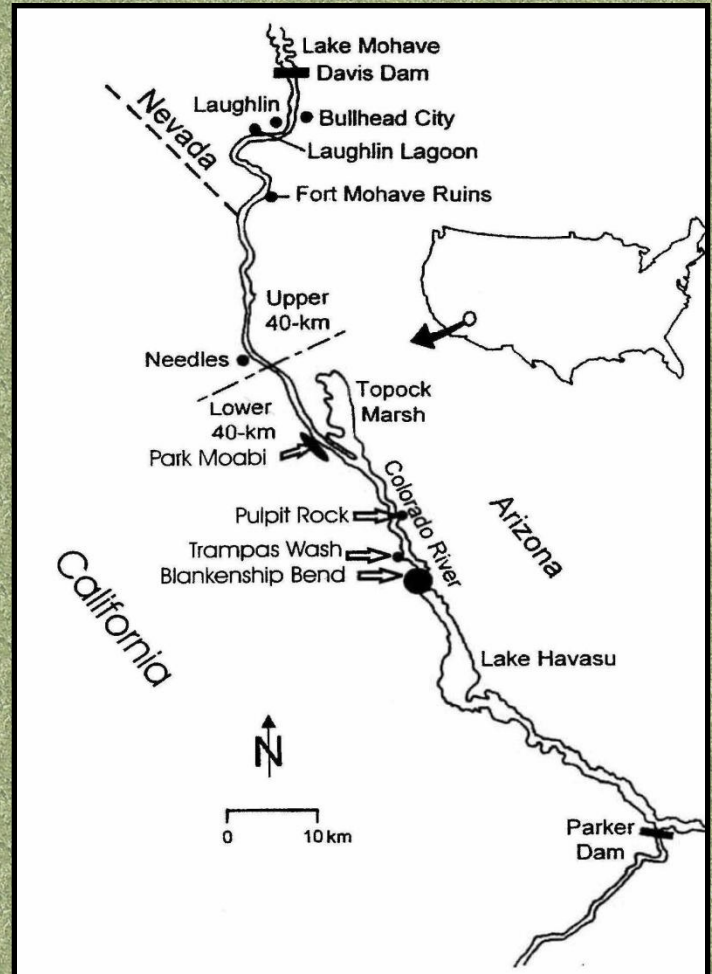


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Study Area

- Davis Dam to Lake Havasu
- Upper half = Reinforced shorelines and Rocky substrates
- Lower half = Canyon walls, large backwaters, sandy substrates



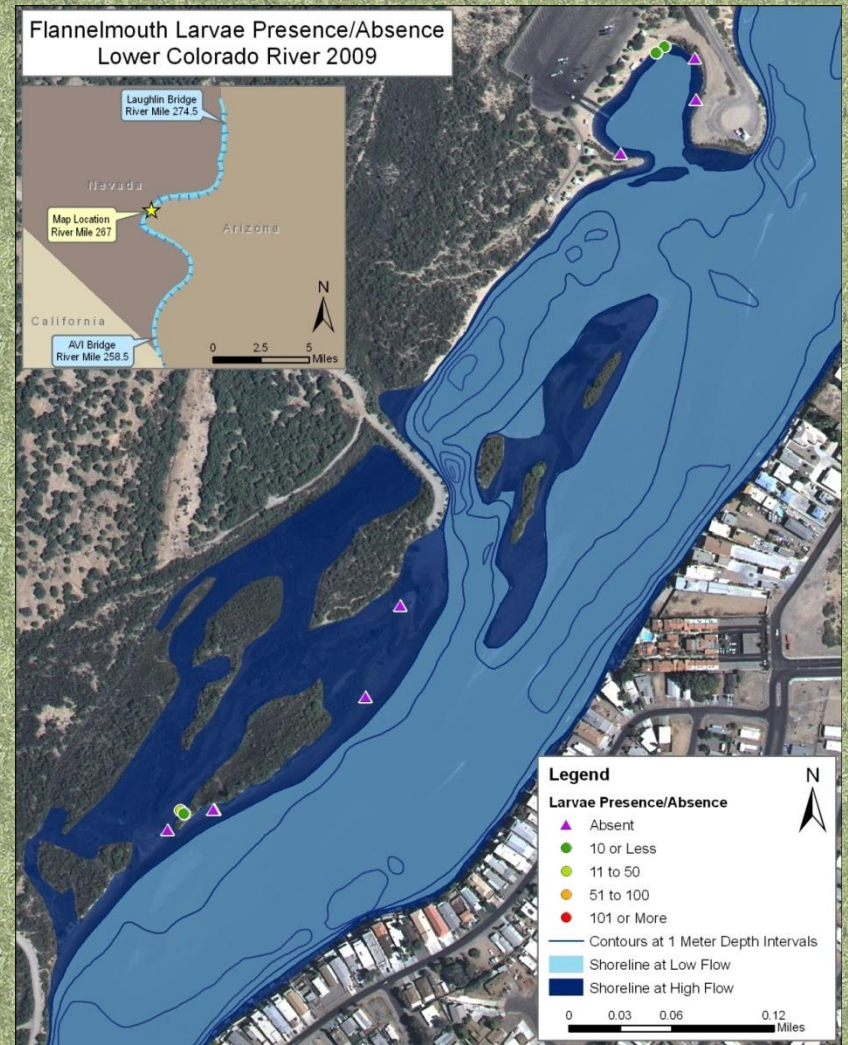
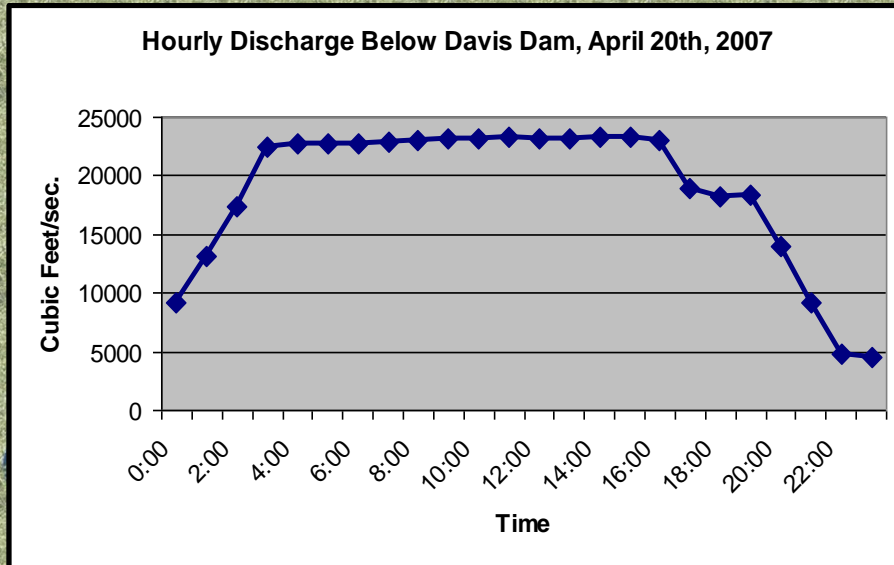


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Daily river fluctuations

- Daily fluctuations >10,000 cfs
- >8 acres/mile dewatered





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Young of Year (<70mm)
**Effort to determine relative
abundance and habitat use**

- Dip netting with light
- Seining
- Backpack shocking
- Snorkel surveys





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Results

- March to May – 100's larvae collected
 - June – 100's of young juv. (<30mm)
 - July – 10's of young juv. (<70mm)
 - August – 0 young fish
-
- Most common along undeveloped shorelines
 - River habitats almost exclusively FMS
 - Backwater vs. slackwater CPUE similar in April
 - Undetectable in backwaters in June







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Juvenile (70-350mm) Effort

- ½ inch trammel nets
- E-fishing at extremely low flows
- Snorkel surveys
- Seines

Results

- Few collected since 2006
- Range 135 - 341 mm
- Majority of contacts in Topock Gorge are sub-adults



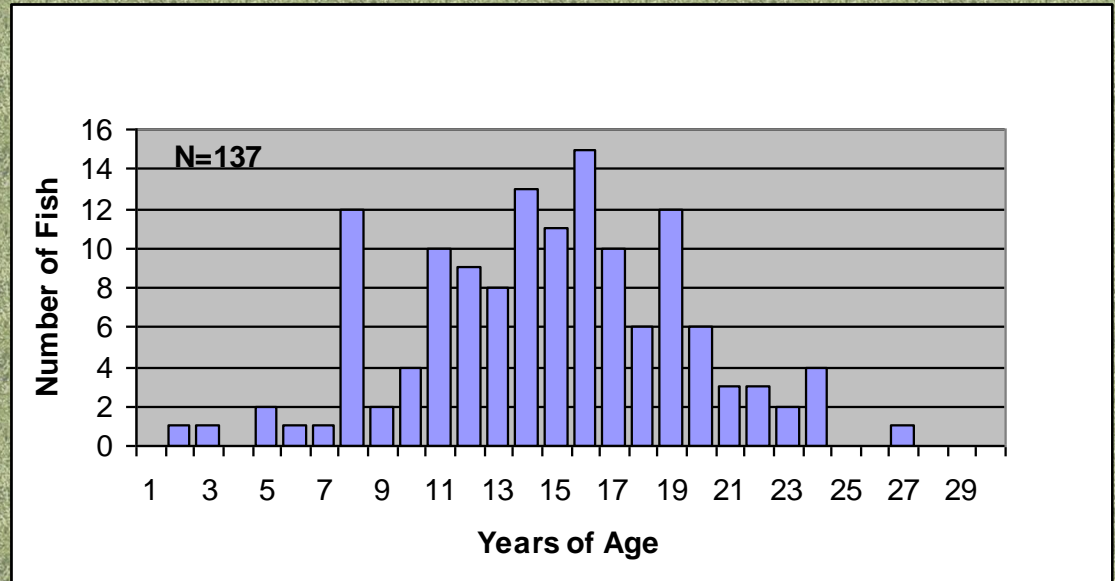


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Aging

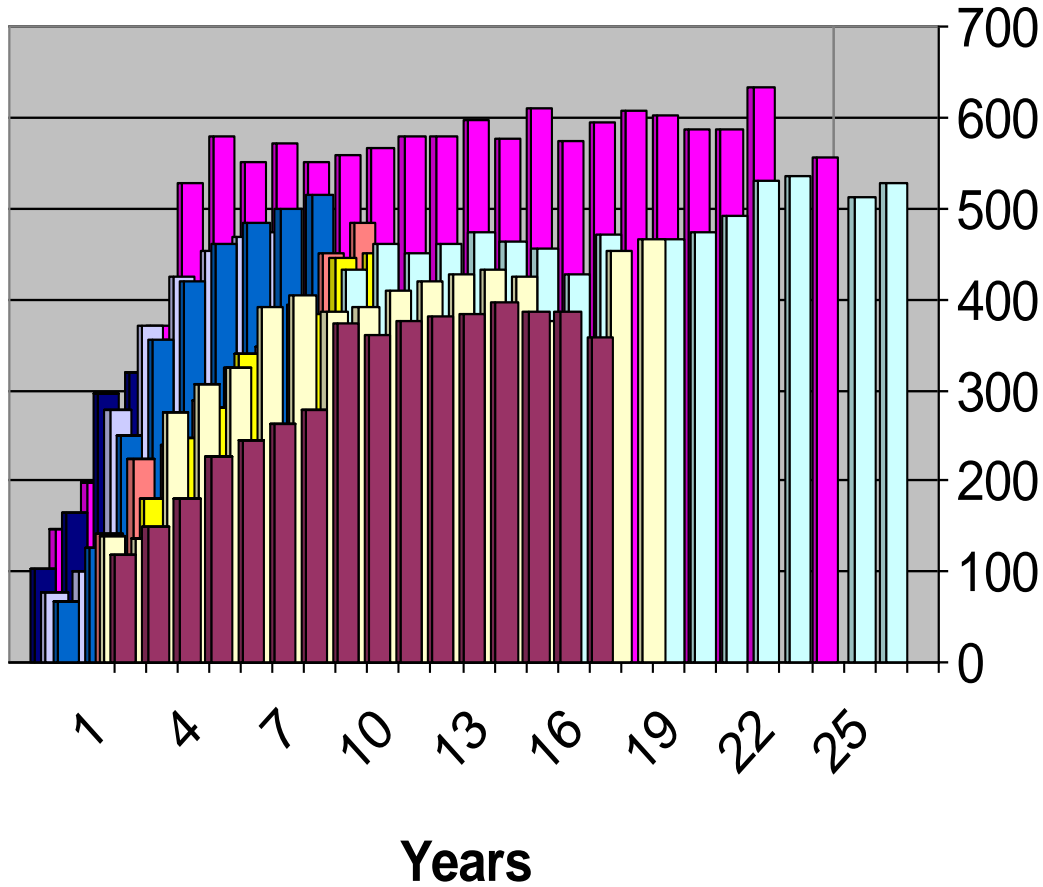
137 FMSU were fin
clipped for aging



- TL averaged 574 mm (148-673)
- Avg. age = 14 Yrs (2-27)



FMSU Length at Age



- Muddy Ck., WY
- Little Sandy Ck, WY
- Big Sandy R.WY
- Yampa R., CO
- WhiteR. CO
- Colorado R., CO
- Yampa & Green R. CO
- Green R. UT
- Colorado R. AZ



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Sonic Telemetry

- 15 males in 2006 (14 month tag)
- 20 fish in 2007 (36 month tag)
- Manual tracking
- Collection of habitat data
- SUR's





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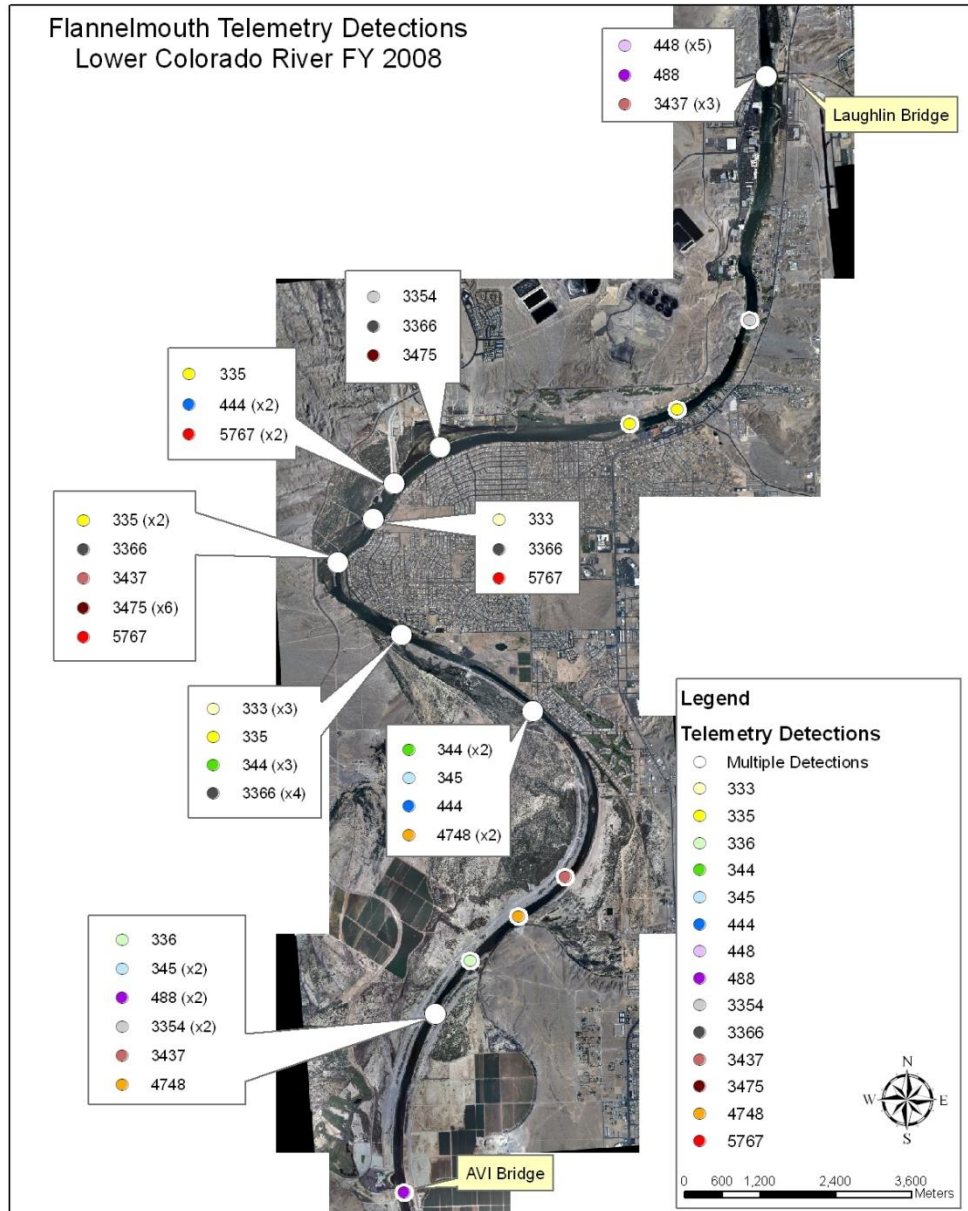
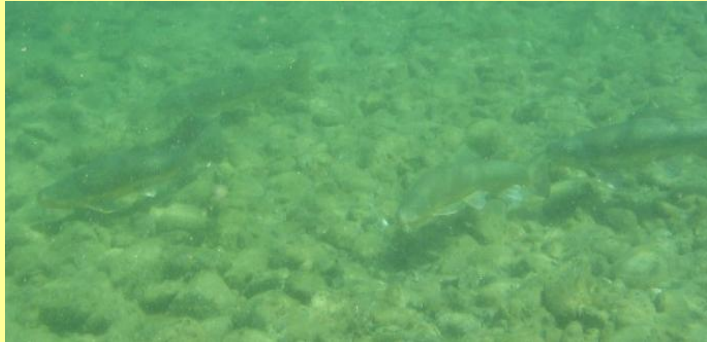
Telemetry Results

- Habitat Utilization
 - cobble dominant substrate
 - depths 2-4 meters
- Males range up to 9 miles
 - average 6 miles
- Females range up to 23 miles
 - average 9 miles

SUR's showed possible patterns
of night time use



Flannelmouth Congregations





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Balancing Resource Use and Conservation **Summary**

- Adult population appears stable
- YOY – majority found in slackwater habitats adj. channel. Less predators in slackwater habitats vs. backwater.
- Juveniles and Subadults – Rarely contacted. Present in channel or backwater habitats... but to what extent?
- Adults – Population appears stable and healthy. Majority of adult use is upstream of California. Utilization of backwaters and nearshore channel habitats increases during the spawning season (recoup during spawning?)





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- BLM

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