Reach 3 Habitat Use and Movements of Flannelmouth Sucker Below Davis Dam using Radio and Sonic Telemetry

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Background

- Not historically common
- 611 fish stocked in 1976 (AZGFD)
- Established self-sustaining population ~2400 adults
Contacts with smaller size classes of FMSU in reach 3 are limited.

Adults mostly found in upper 20 miles of Reach 3.

Smaller size classes make up the majority of catch DS Needles.
Reach 3

- Upper half = Reinforced shorelines and Rocky substrates
- Lower half = Canyon walls, large backwaters, softer substrates
Methods

• Target FMSU from Lake Mead inflow

• Implanted with tags at LM Hatchery and allowed to recover

• 30 sonic and 12 radio tags.
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Balancing Resource Use and Conservation

Radio
- Work in turbulent water
- Not impacted by thick bulrush
- Mort tags on shore could be located
- Limited depth detection

Sonic
- Work well in deep environments
- SURs allow for logging of data
- Limited by thick bulrush/veg
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- FMSU released at Trampas and Pulpit
- Range 342-470 mm
- Night track every other week March – June
- Collect habitat data for FMSU detections
- Welfare check when possible
Results

- Lost – 8 radio / 10 sonic
- Confirmed Morts. – 1 radio and 2 sonic
- Good data – 3 radio / 9 sonic
- SUR fish but no manual – 9
• Day Habitat Utilization
  - Backwaters and shoreline/bulrush
    - Depths avg. 1.5 meters (0.5-2.5 m)
    - Silty substrates

• Night Habitat Utilization
  - Channel habitats
    - Depths avg. 2.5 meters (1-5.5 m)
    - Mostly sandy substrates
  - Backwaters
    - Similar to day utilization but not associated with thick cover
Summary

Majority of FMSU utilizing bulrush adjacent the channel during the day

Direct pointed movements from open water to cover as daylight approached

Fish selected areas that would not dewater during low flows.

Given depths utilized in the channel at night fishing probably not effective
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