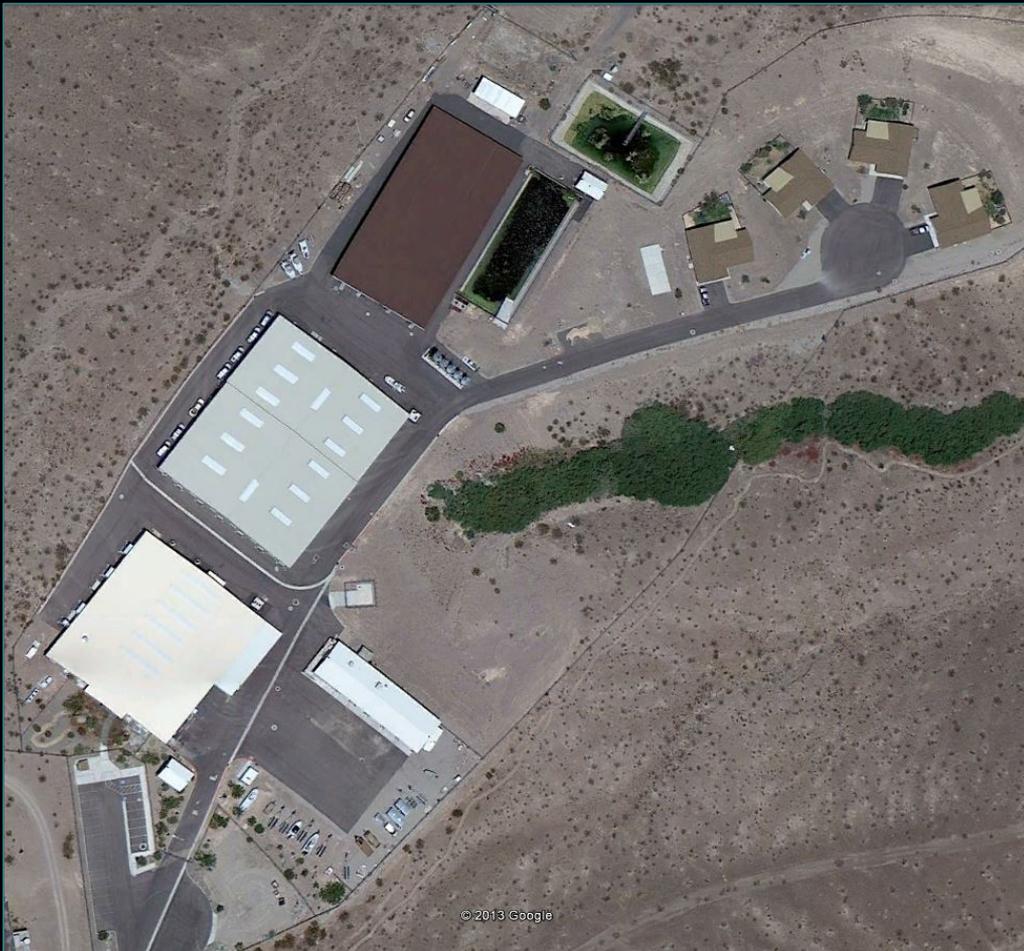
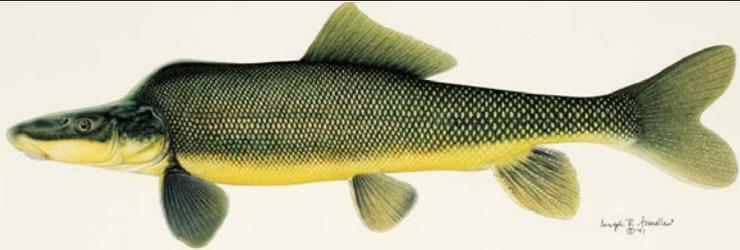


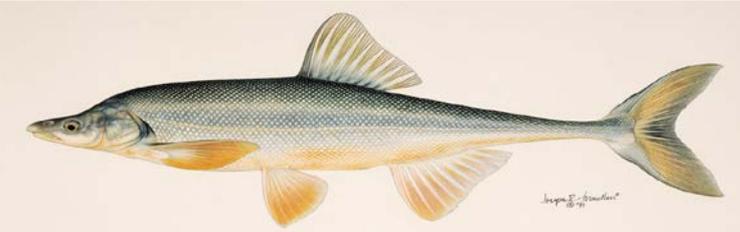
Lake Mead Fish Hatchery CRAB Meeting 2018



Fish Reared at LMFH



Razorback Sucker
(Xyrauchen texanus)



Bonytail Chub
(Gila elegans)



Flannelmouth Sucker
(Catostomus latipinnis)

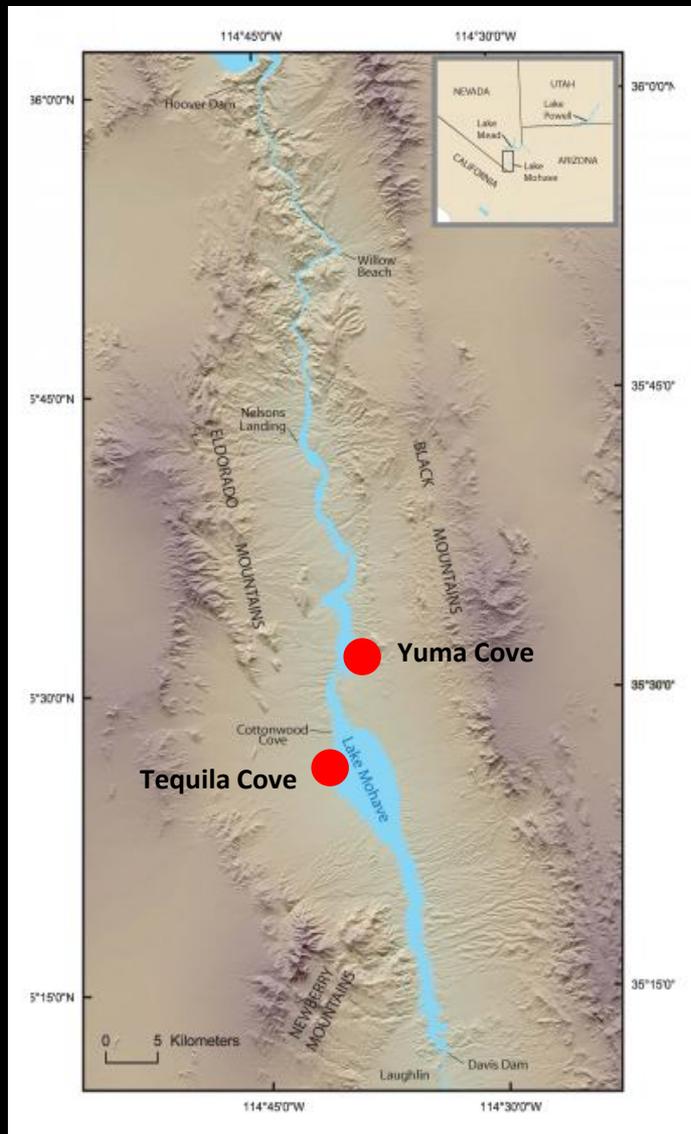


Moapa Dace
(Moapa coriacea)



Moapa Speckled Dace
(Rhinichthys osculus moapae)

Razorback Site Fidelity Study



Estimated Mortality due to water outage on 24 August 2017

Raceway 406 Yuma Cove ~400 mortalities

Raceway 407 Tequila Cove ~600 mortalities

November 2017 Stocked:

~650 RZB from Yuma Cove

~150 RZB from Tequila Cove

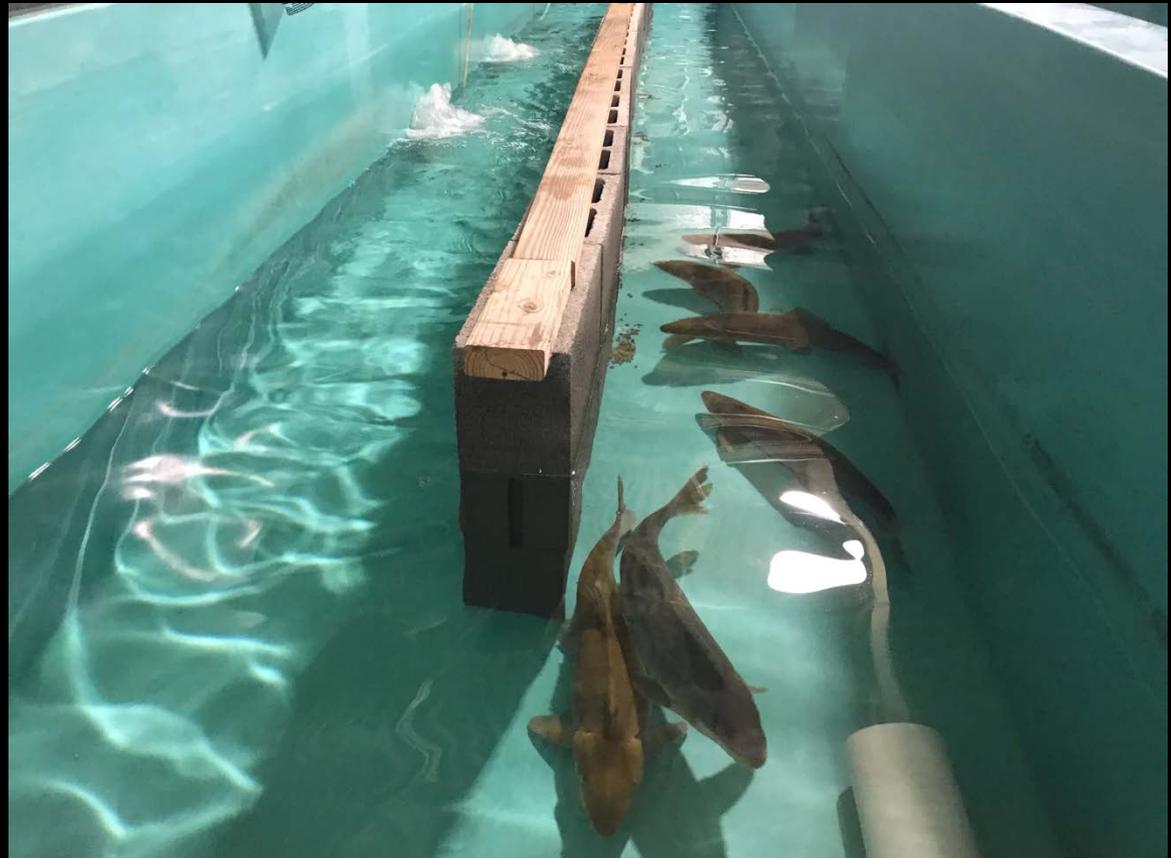
Flow Conditioning RZB and BTC 2017

~ 1000 BTC

~ 600 RZB

Fish Conditioned at 42
cm/s for 18 hour
intervals.

Fish displayed marked
increase in size and
activity.



LMFH Razorback Sucker on Station

Tank	Species	Year Class	Origin	# of Fish	Mean TL (mm)
201	RBS	2017	Lake Mohave	2028	N/A
202	RBS	2017	Lake Mohave	2892	N/A
203	RBS	2017	Lake Mohave	774	N/A
204	RBS	2017	Lake Mohave	~287	N/A
208	RBS	2017	Lake Mohave	1105	N/A
209	RBS	2017	Lake Mohave	1182	N/A
401	RBS	2016	Lake Mohave	~955 Loss	N/A
402	RBS	2016	Lake Mohave	~1687 Loss	N/A
403	RBS	2017	Lake Mohave	400	N/A
404	RBS	2016	Lake Mohave	~651 Loss	N/A
813	RBS	2016	Lake Mohave	2125	N/A
814	RBS	2015	Lake Mohave	603	N/A
815	RBS	2015	Lake Mohave	724	N/A
817	RBS	2015	Lake Mohave	1517	N/A

Total Fish 13,350

Total Lake Mead RBS 10

Total Lake Mohave RBS 13,350

LMFH Bonytail Chub on Station



Tank	Species	Year Class	Origin	# of Fish	Mean TL (mm)
206	Bonytail	2017	Achii Hanyo	502	260
802	Bonytail	2013	Wahweap	803	404
803	Bonytail	2013	Wahweap	2,132	N/A
804	Bonytail	2013	Wahweap	2,195	N/A
805	Bonytail	2013	Wahweap	3,173	N/A
806	Bonytail	2013	Wahweap	2,410	N/A
807	Bonytail	2013	Wahweap	2,445	N/A
808	Bonytail	2013	Wahweap	3,220	N/A
			Total Fish	17,880	

Sampling Event Lakes at Sahara, April 2017

Species	# Fish	Avg. TL (mm)
Razorback Sucker	14	576.1

Razorback	# Fish
Female	6
Male	8
Total	14

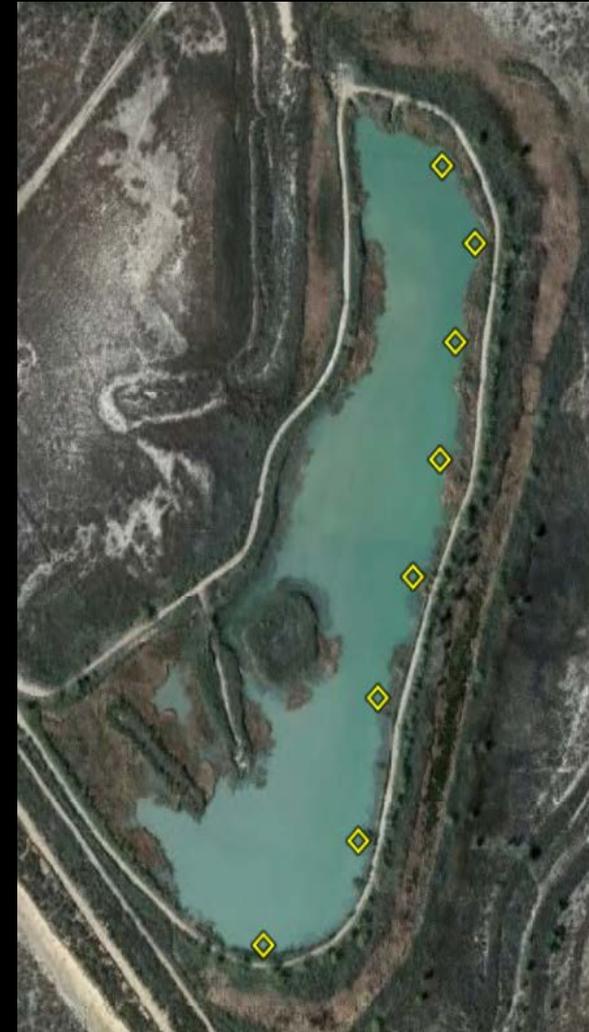


Sampling Event

Center Pond at Overton Wildlife Management Area, 2017

Species	# of Fish	Avg. TL (mm)
Razorback	35	482
Channel Catfish	2	382.5
Common Carp	12	300.9
Green Sunfish	0	N/A
Largemouth Bass	7	310
Tilapia	1	180
Total Fish	57	

- Set (8) 150' Trammel Nets for the Annual Sample
- Set an Additional (7) 150' Trammel Nets in hopes of Harvesting additional RZB for BioWest Research
- RZB Stocked into Center Pond April 2017 , ~155 at 300mm
- RZB Caught in Nov identified as April released cohort Avg TL(mm) over 400.



Safe Harbor Agreement Desert Shores 2017

New location secured for future safe harbor grow out for Razorback and Bonytail Chub.

Stocking to be completed 2018

~180 Razorback completed Jan 2018

~800 Bonytail Chub to be released soon.



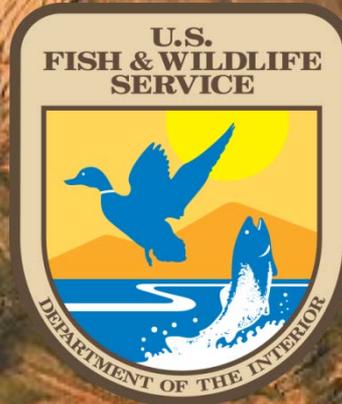
Water Outage LMFH August 24,2017

- -The Basic Water Company is the water utility and supplier for the Lake Mead Fish Hatchery
- -On August 24th the Basic Water facility at Lake Mead was struck by lightning, which prevented water delivery to its customers for approximately 14 hours
- -Lake Mead Hatchery staff implemented their protocol for planned water outages as soon as the outage was noticed
- -Despite the efforts of hatchery staff, approximately 4,350 razorback sucker and 3,500 bonytail were lost
- -No additional fish loss has been observed as of 12:00 pm August 29th
- -Approximately 33,000 healthy fish remain on station at the hatchery
- -The loss of these fish will have little impact on FY18-20 augmentation numbers

Upcoming Work Activities 2018

- Continue rearing of Razorback Sucker and Bonytail on station from previous years.
- Begin stocking Bonytail received in FY14 that have attained a TL > 300mm.
- Receive and rear up to 6,000 fingerling Bonytail for future repatriation.
- Continue spawning of Moapa Dace for research projects.
- Continue spawning of Moapa Speckled Dace for research and repatriation.
- Long-term monitoring of Lake Mead RBS population w/BIO-WEST, Inc.
- Flow condition razorback suckers and Bonytail Chub for release into Lake Mohave
(Spring 2018).
- Stock Desert Shores Safe Harbor Agreement 2017

Acknowledgements



**American Southwest
Ichthyological Researchers**