

Goal 5: Other Native Fishes

2024 Metrics Update

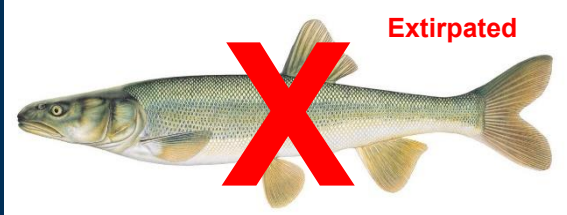
Dibble, Kimberly; Healy, Brian; Dzul, Maria; and Yackulic, Charles

U.S. Geological Survey, Southwest Biological Science Center, Grand Canyon Monitoring and Research Center

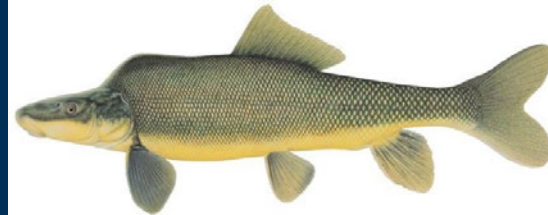


Glen Canyon Dam Adaptive Management Program
Annual Reporting Meeting (virtual)
April 8, 2025

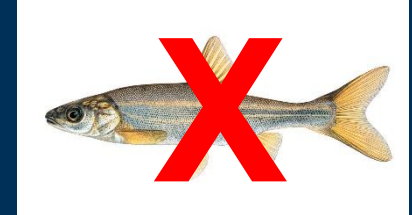
Native Colorado River Fishes (historic)



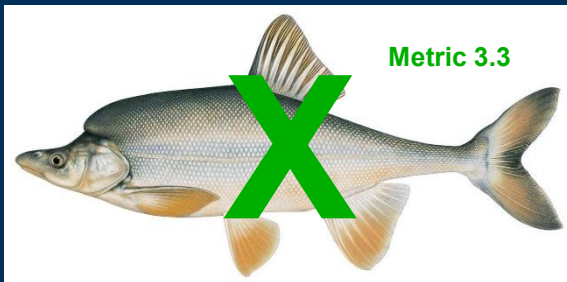
Colorado Pikeminnow, *Ptychocheilus lucius*



Razorback Sucker, *Xyrauchen texanus*



Roundtail Chub, *Gila robusta*



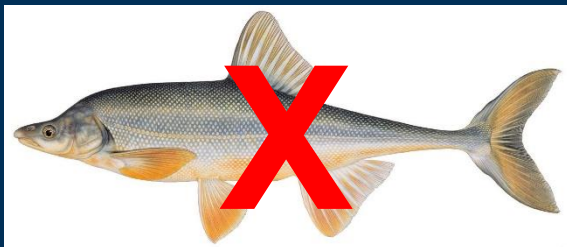
Humpback Chub, *Gila cypha*



Flannelmouth Sucker, *Catostomus latipinnis*



Speckled Dace, *Rhinichthys osculus*



Bonytail Chub, *Gila elegans*



Bluehead Sucker, *Catostomus discobolus*

Species also found in nearby river systems

- Long-lived species
- Large adult body size
- Fusiform, streamlined
- Small, compressed skulls
- Humps, keels
- Small eyes



**Endemic species in Colorado River Basin
(found nowhere else in the world)**

Illustrations: Joe Tomelleri

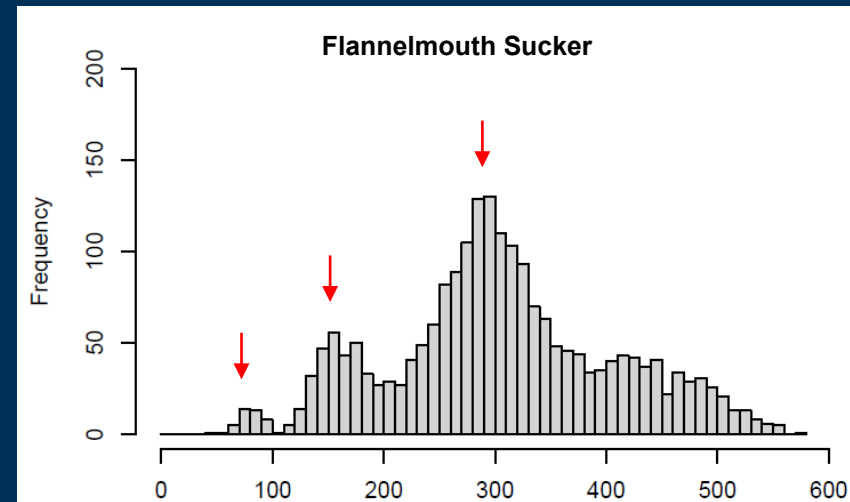
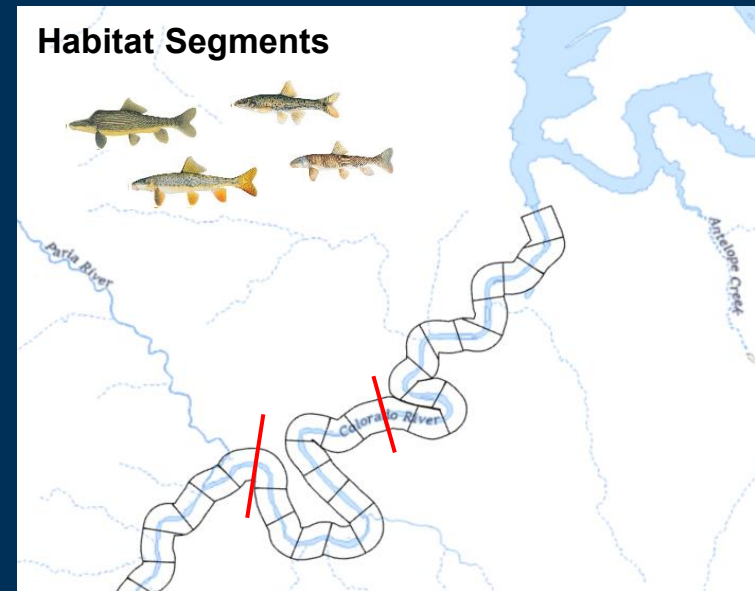
Background

“Maintain self-sustaining native fish species populations and their habitats in their natural ranges on the Colorado River and its tributaries.”

- **Five metrics defined in Goal 5:**
 - *5.1: Proportion of the Grand Canyon ecosystem with evidence of all three life history stages of Bluehead Sucker (juvenile, subadult, adult).*
 - *5.2: Proportion of the Grand Canyon ecosystem with evidence of all three life history stages of Flannelmouth Sucker (juvenile, subadult, adult).*
 - *5.3: Proportion of the Grand Canyon ecosystem with evidence of all three life history stages of Razorback Sucker (juvenile, subadult, adult).*
 - *5.4: Proportion of the Grand Canyon ecosystem with evidence of Speckled Dace (any life stage).*
 - *5.5: Proportion of the Grand Canyon ecosystem with evidence of extirpated species (Bonytail Chub, Roundtail Chub, Colorado Pikeminnow; any life stage).*

Methods

- Compiled 2024 data for 'other native fish' from collaborators
- Defined habitat segments at meaningful scale (12-13 km)
- Created length-frequency plots and identified juveniles, subadults, and adults
- Bluehead, Flannemouth, Razorback Sucker:
 - 0: 0-2 life stages present
 - 1: all 3 life stages present
- Speckled Dace, Extirpated Spp.:
 - 0: not detected
 - 1: detected



Colorado River

■ Bluehead Sucker

- All life stages found in Marble Canyon, at LCR, near Tapeats Cr, and in Western GC

■ Flannelmouth Sucker

- All life stages present downstream from Lees Ferry in most habitat segments

■ Razorback Sucker

- No segments with all life stages

■ Speckled Dace

- Present downstream from Lees Ferry in most segments

■ Extirpated Species

- Not present



Habitat Segment (rkm from dam)	Bluehead Sucker	Flannelmouth Sucker	Razorback Sucker	Speckled Dace	Extirpated Species
0-13	0	0	0	0	0
13-25	0	0	0	0	0
25-37	0	1	0	1	0
37-49	0	1	0	0	0
49-61	1	1	0	1	0
61-73	0	0	0	0	0
73-85	0	1	0	0	0
85-97	0	1	0	1	0
97-109	0	1	0	1	0
109-121	0	1	0	1	0
121-133	1	1	0	1	0
133-145	1	1	0	1	0
145-157	0	1	0	0	0
157-169	0	1	0	1	0
169-181	0	1	0	1	0
181-193	0	0	0	1	0
193-205	0	1	0	1	0
205-217	0	1	0	1	0
217-229	0	1	0	1	0
229-241	0	1	0	1	0
241-252	1	1	0	1	0
252-265	0	1	0	1	0
265-277	0	1	0	1	0
277-289	0	1	0	1	0
289-301	0	1	0	1	0
301-313	1	1	0	1	0
313-325	0	1	0	1	0
325-337	0	1	0	1	0
337-349	1	1	0	1	0
349-361	1	1	0	1	0
361-385	1	1	0	1	0
385-397	1	1	0	1	0
397-409	0	1	0	1	0
409-421	0	1	0	1	0
421-433	1	1	0	1	0
433-445	0	0	0	1	0
445-457	0	1	0	1	0
457-469	1	1	0	1	0
469-481	1	1	0	1	0
Mean Score	0.3	0.9	0	0.8	0

Tributaries

- **Bluehead Sucker**
 - All life stages present in Little Colorado River, Havasu Creek, Bright Angel Creek
- **Flannelmouth Sucker**
 - All life stages present in Little Colorado River
- **Razorback Sucker**
 - No tributaries with all life stages
- **Speckled Dace**
 - Present in all tributaries
- **Extirpated Species**
 - Not present

Tributary	Habitat Segment (rkm from confl)	Bluehead Sucker	Flannelmouth Sucker	Razorback Sucker	Speckled Dace	Extirpated Species
Little Colorado R	0-6.9	1	1	0	1	0
Little Colorado R	7-13.6	1	1	0	1	0
Little Colorado R	13.7-17.8	0	0	0	1	0
	Mean Score	0.7	0.7	0	1	0
Kanab Creek	0-1	0	NA	0	1	0
	Mean Score	0	NA	0	1	0
Shinumo Creek	0-1	0	0	0	1	0
	Mean Score	0	0	0	1	0
Havasu Creek	0-1	1	0	0	1	0
	Mean Score	1	0	0	1	0
Bright Angel Cr	0-2.9	1	0	0	1	0
Bright Angel Cr	2.9-7.2	0	0	0	1	0
Bright Angel Cr	7.2-10.1	0	0	0	1	0
Bright Angel Cr	10.1-12.4	0	0	0	1	0
Bright Angel Cr	12.4-15.5	0	0	0	0	0
	Mean Score	0.2	0	0	0.8	0



Photo: Freshwaters Illustrated