Razorback Sucker







Colorado Pikeminnow

Eliza Gilbert Assistant SJRIP Coordinator May 16th 2022 WIIN Act Group – Brown Bag

PURPOSE:

- 1) Recover Colorado Pikeminnow and Razorback Sucker
- 2) Provide for water development

- * Introduce the fish
- * Why the SJRIP was formed
- * Who is the SJRIP
- * What we do
- * Successes
- * Current hot topics



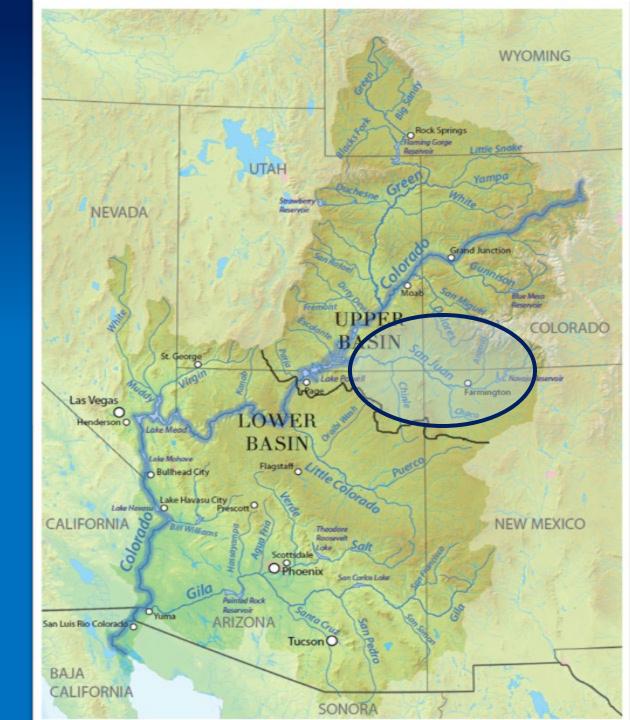
Geography



Razorback Sucker



Colorado Pikeminnow



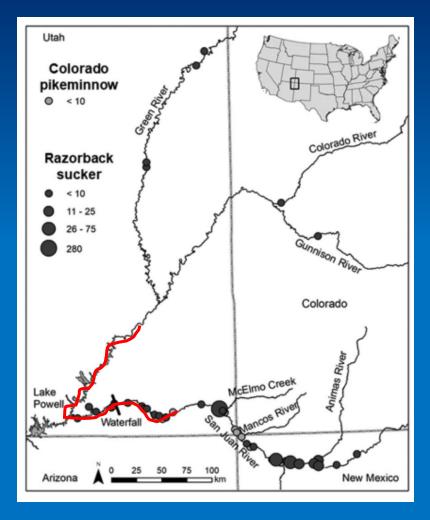




Both are "Big River Fish" and highly migratory



Transbasin movement through Lake Powell



For Razorback Sucker Not detected for Colorado Pikeminnow

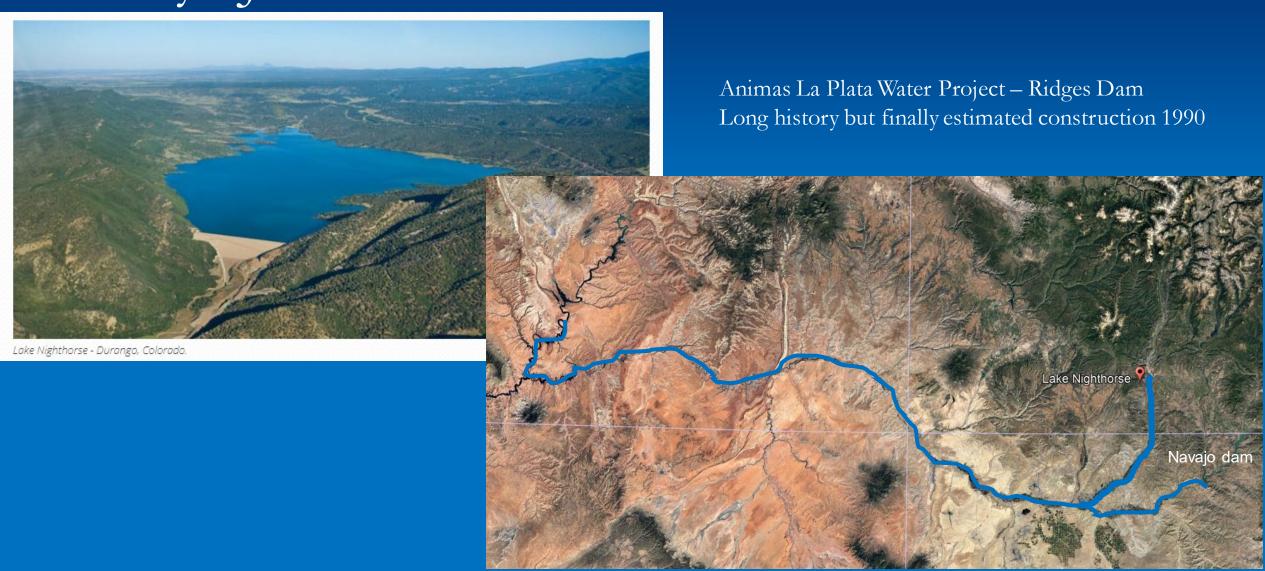


Historical and 1990 distributions





Why SJRIP formed











7-year research Navajo Reservoir flow recommendations



SJRIP PURPOSE

Recover Colorado Pikeminnow and Razorback Sucker to the San Juan River Basin AND provide for water development

Repatriate Colorado Pikeminnow and Razorback Sucker Serves as Endangered Species Act compliance for 356 water projects comprised of ~ 885,510 acre-feet/year

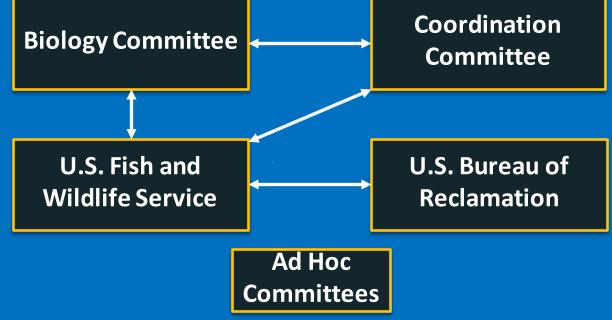
Who is the SJRIP





Water Users

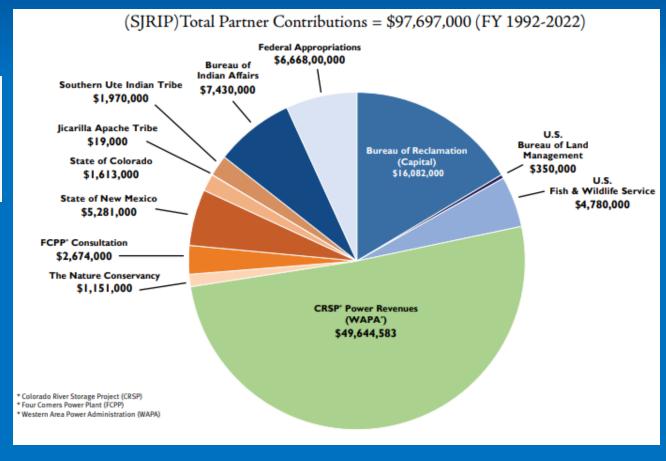
RECLAMATION



How we go about recovery: Money







How we go about recovery: Reestablish and remove

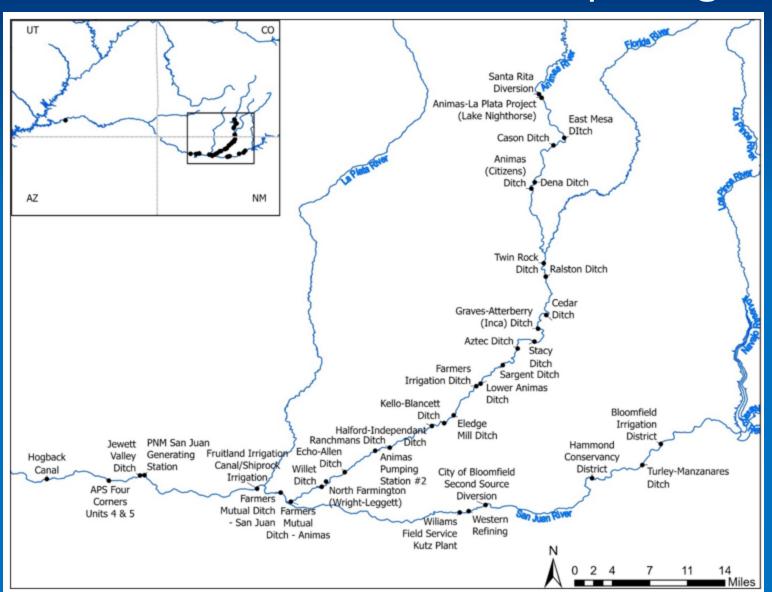
1) Reestablish endangered fish



2) Remove nonnative fish



How we go about recovery: Remediate entrainment and passage



How we go about recovery:

3) Entrainment



\$3.5 million





How we go about recovery: Remediate passage

4) Passage





How we go about recovery: Navajo Reservoir flow recommendations



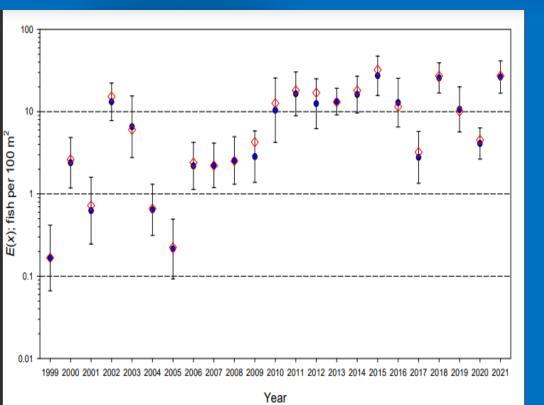


Annual Flow Statistics		# OF DAYS MEETING FLOW				YEARS MEETING GOAL			
YEAR	Hydrograph Released	>9,700	>7,760	>4,850	>2,425	>9,700	>7,760	>4,850	>2,425
		cfs	cfs	cfs	cfs	cfs	cfs	cfs	cfs
	Minimum Target	5	10	21	10	10	6	4	2
1993	Non-Standard (pre- flow recs)	4	20	114	128	11	0	0	0
1994		0	12	50	68	12	0	0	0
1995		13	29	74	139	0	0	0	0
1996		0	0	0	36	1	1	1	0
1997		12	36	50	104	0	0	0	0
1998	2-wk	0	4	35	66	1	1	0	0
1999	1-wk	0	1	31	72	2	2	0	0
2000	ns 1-wk	0	0	6	40	3	3	1	0
2001	2-wk	0	4	36	56	4	4	0	0
2002	none	0	0	0	0	5	5	1	1
2003	none	0	0	0	14	6	6	2	0
2004	none	0	0	1	26	7	7	3	0
2005	full+	11	18	52	85	0	0	0	0
2006	1-wk	0	0	8	24	1	1	1	0
2007	2-wk	0	3	21	56	2	2	0	0
2008	3-wk	6	25	62	121	0	0	0	0
2009	1-wk	0	0	20	41	1	1	1	0
2010	none	0	0	0	19	2	2	2	0
2011	1-wk	0	7	12	29	3	3	3	0
2012	1-wk	0	0	6	10	4	4	4	0
2013	none	0	0	0	0	5	5	5	1
2014	none	0	0	0	22	6	6	6	0
2015	none	0	1	16	38	7	7	7	0
2016	30pk/55tot	0	7	35	53	8	8	0	0
2017	40pk/69tot	0	7	49	73	9	9	0	0
2018	none	0	0	0	0	10	10	1	1
2019	MR	6	9	25	63	0	11	0	0
2020	none	0	0	0	0	1	12	1	1
2021	none	0	0	0	4	2	13	2	2



How are we doing? Razorback Sucker

Larvae





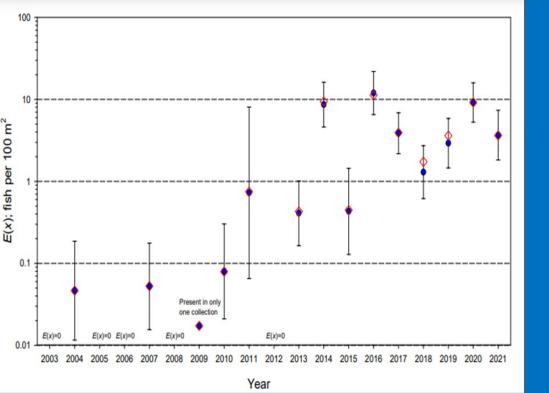
Sub-adults/adults 6000 Number of adult Razorback Sucker 5000 4000 3000 2000 2019 2020 2021

Year

How are we doing? Colorado Pikeminnow

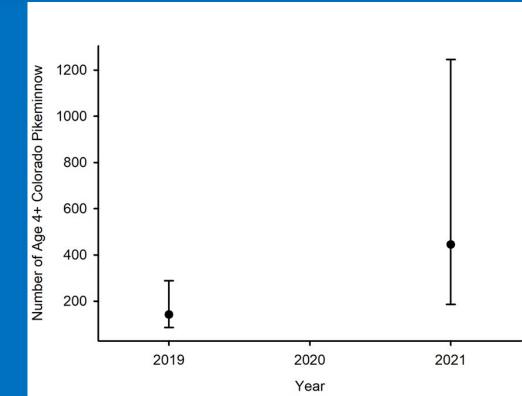


Larvae





Sub-adults/adults



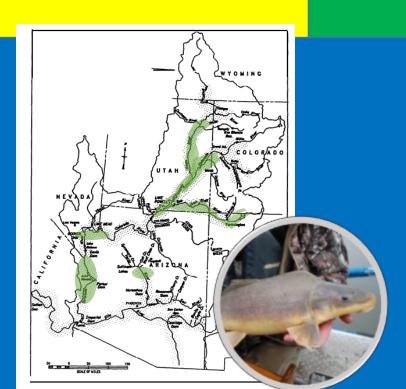
Endangered species status



Endangered



Threatened



Recovered

Water development status



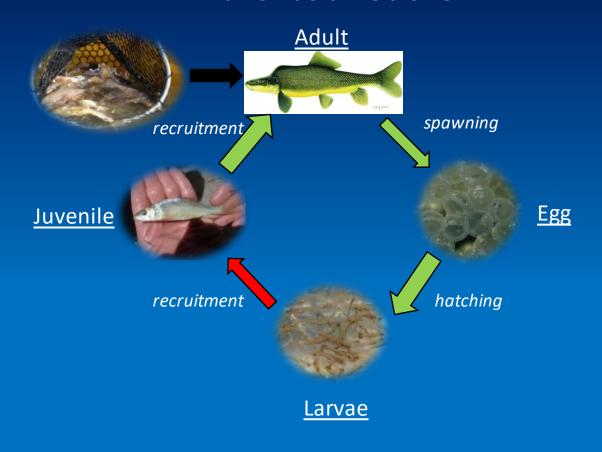
Water development continues to proceed

Persistent Hot Topic Issues



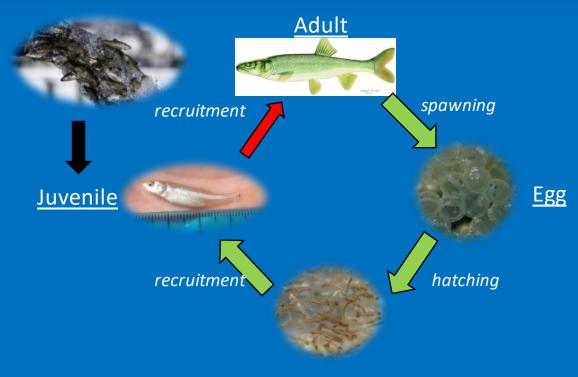
- Species bottlenecks
- Water demands
- Piute Farms waterfall
- Russian olive

Razorback Sucker

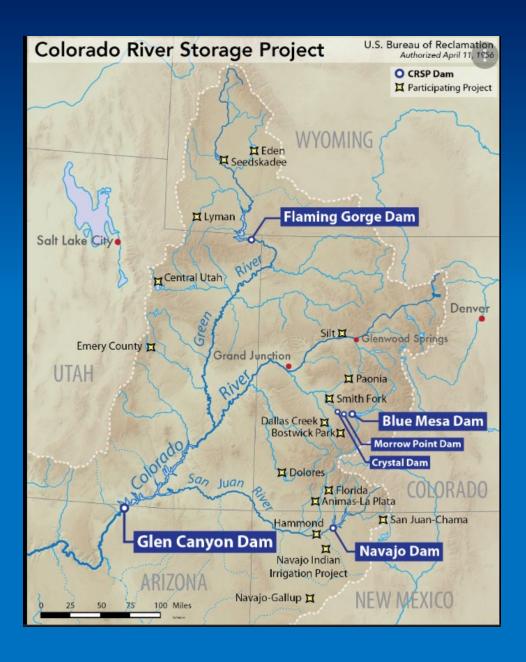


Species bottlenecks

Colorado Pikeminnow



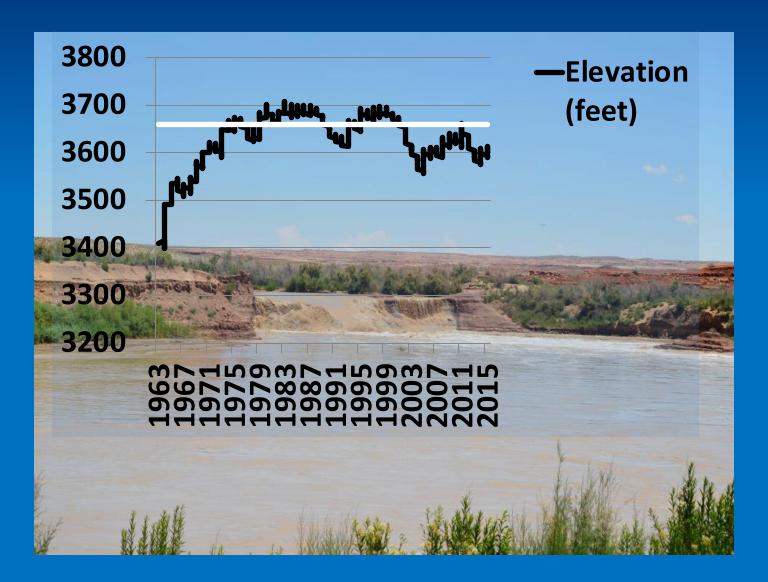
<u>Larvae</u>



Water demands

- Difficult to meet flow recommendations
- Drought contingency plan releases
- Water rights not fully developed

Piute Farms waterfall Barrier – good and bad





Russian Olive and restricted floodplain



