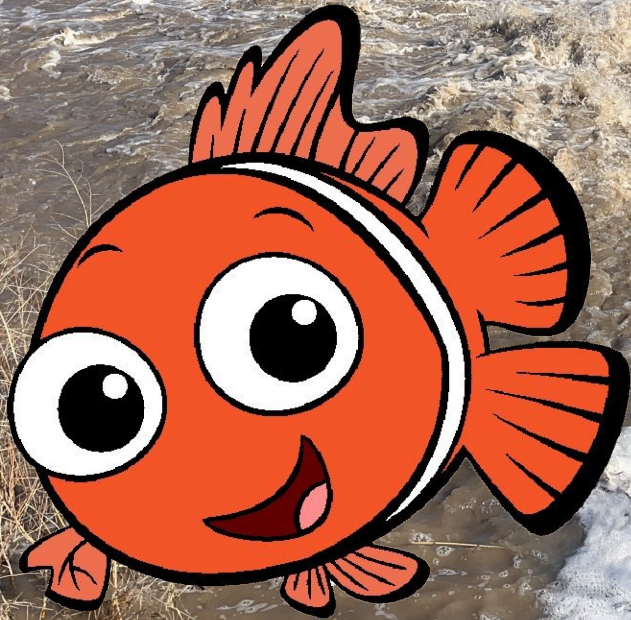


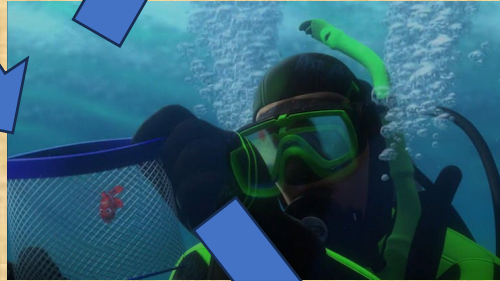
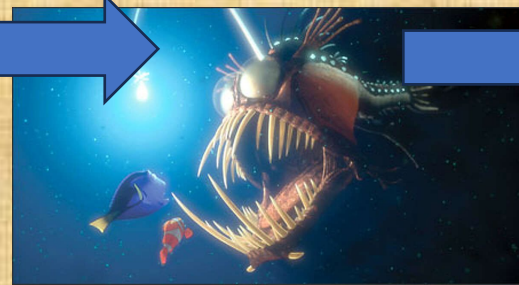
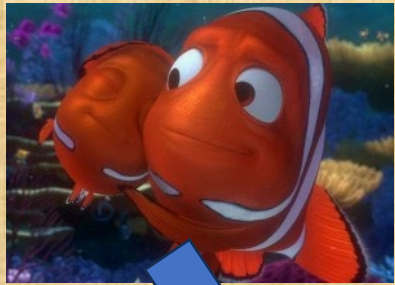
Native Fish Movements in the Dolores and San Miguel Rivers: A True Finding Nemo Story



Russ Japuntich
Bureau of Land Management
Dan Cammack
Colorado Parks and Wildlife

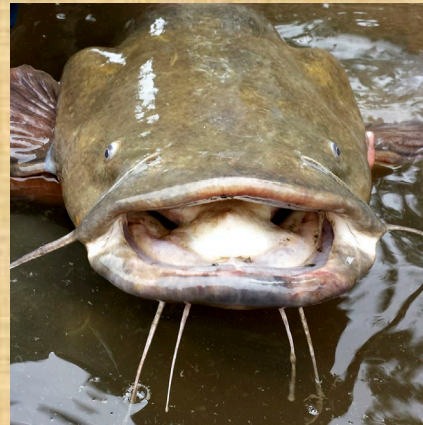


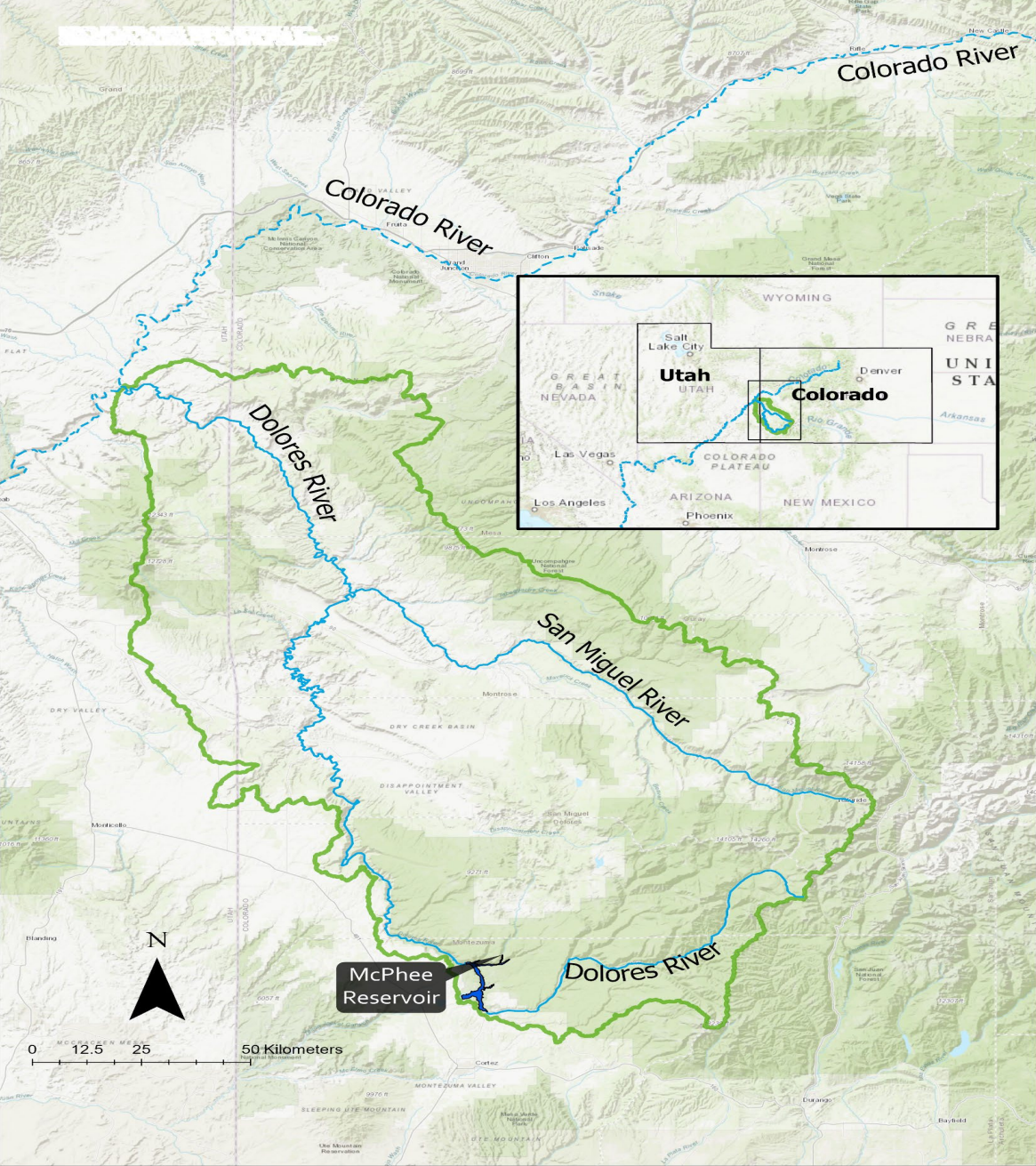
In case you haven't seen the most watched fish movement film ever made.....

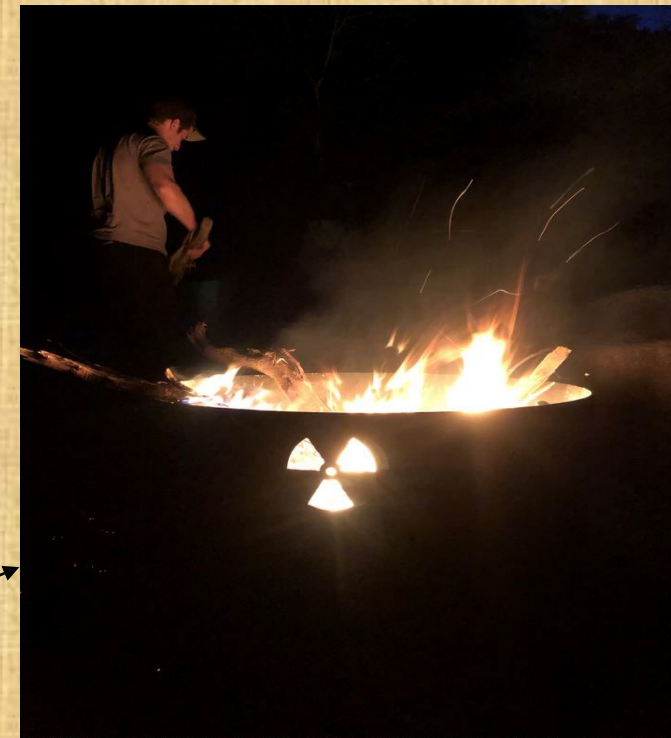
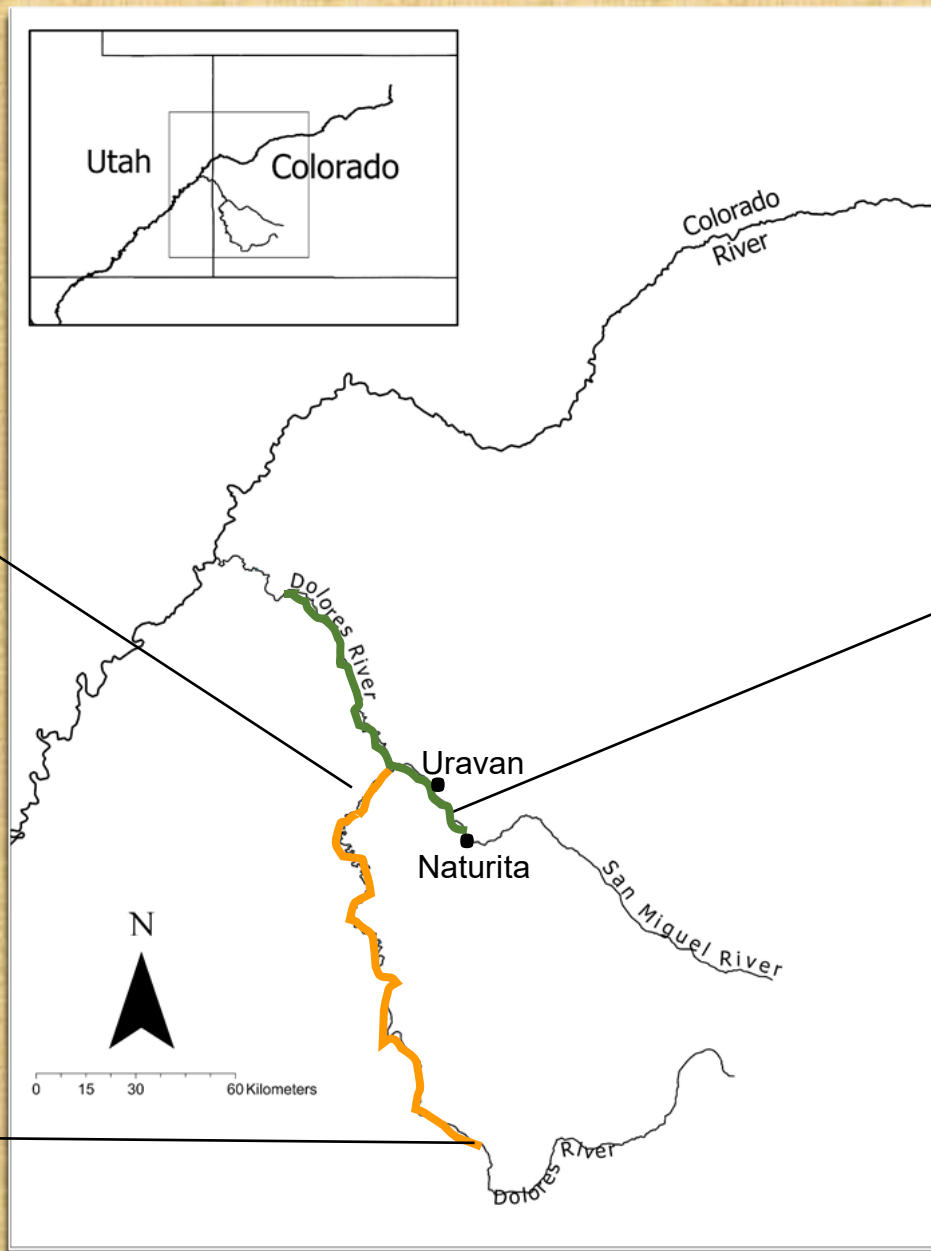
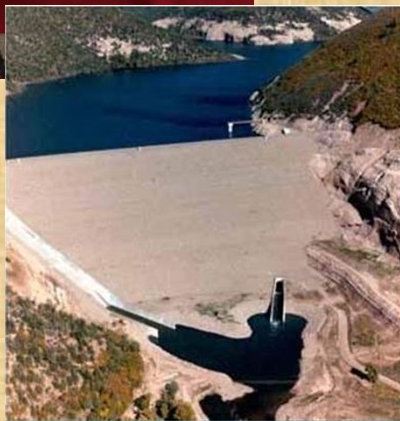


How does the movie relate to native fish?

- Barriers, obstacles, predators are all threats to native fish and movements
- It was a kids movie, so they didn't include hybridization as a threat







THE EFFECTS OF URANIUM MILL WASTE DISPOSAL ON THE FISH POPULATIONS AND AQUATIC PRODUCTIVITY OF THE LOWER SAN MIGUEL AND DOLORES RIVERS.

*Nolting (1959)

Native Species to the Dolores/San Miguel

The “Three Species”

Roundtail Chub



Bluehead Sucker



Flannelmouth Sucker



USFWS Threatened and Endangered Native Fish

Colorado Pikeminnow



Razorback Sucker



Bonytail



Humpback Chub

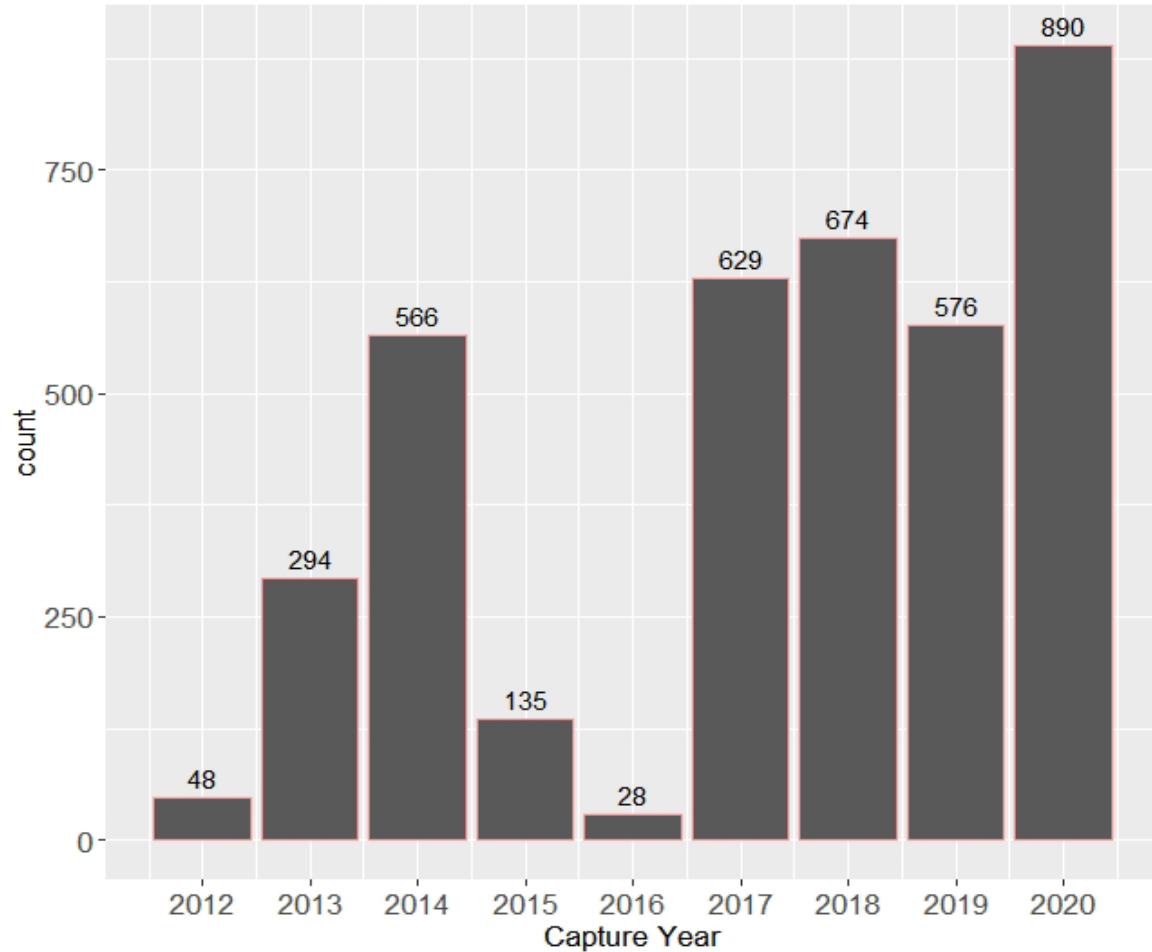


Fish Tagging

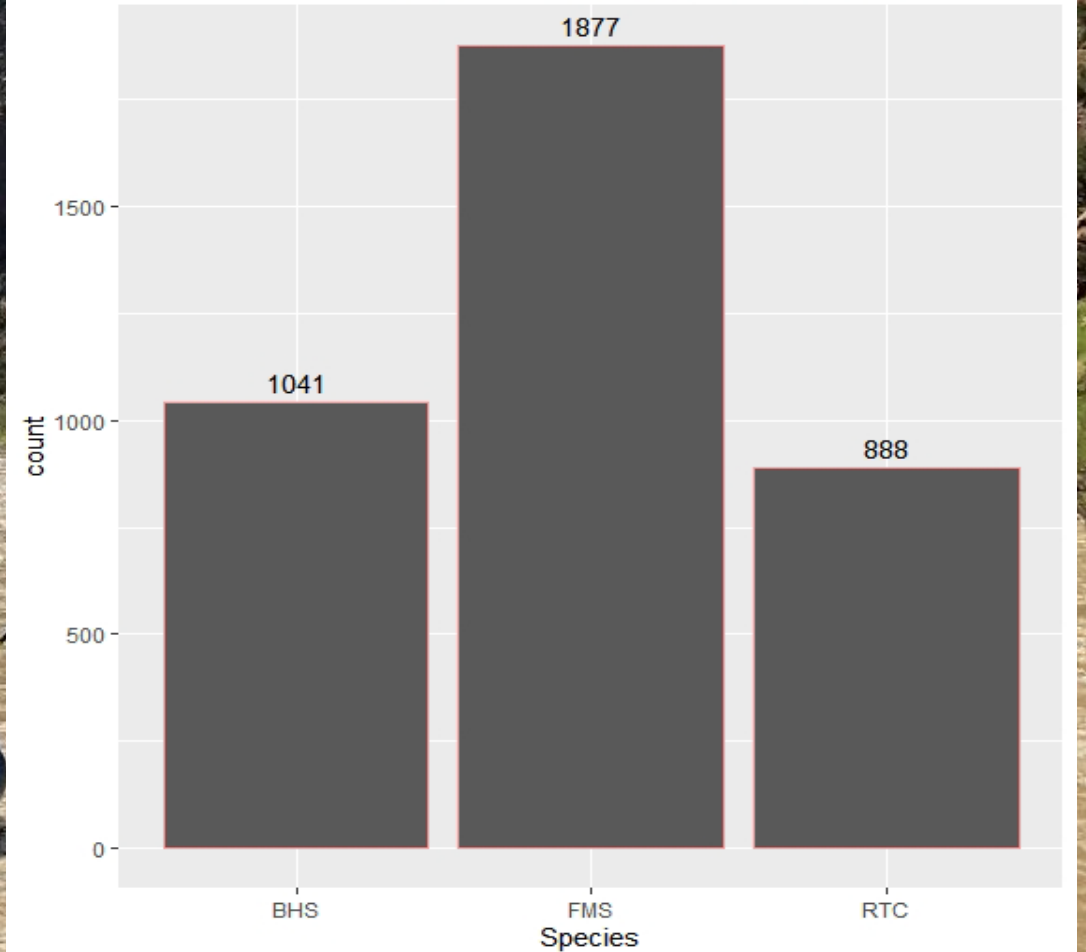


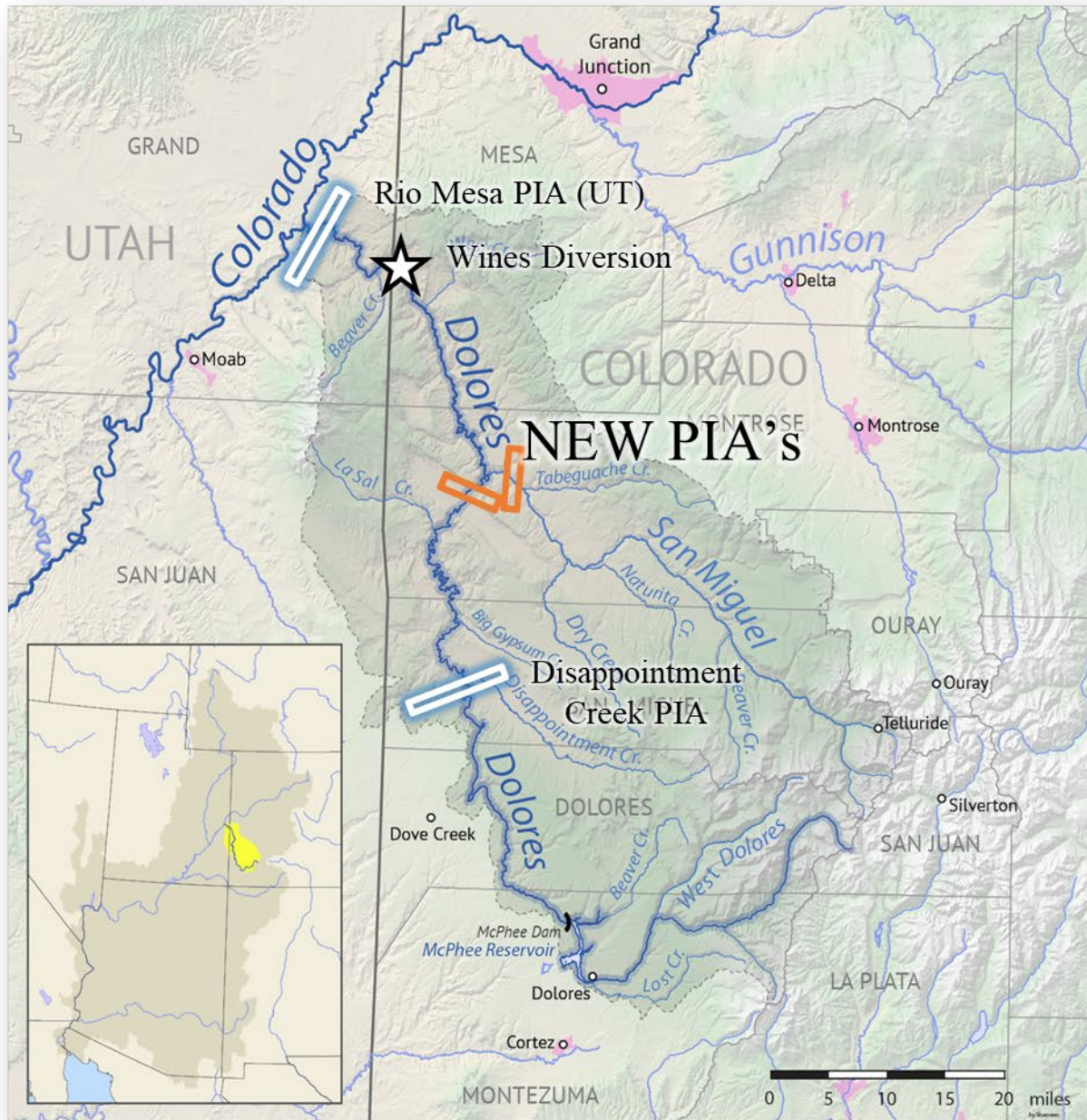
- 3,753 unique tags deployed from 2012-2023

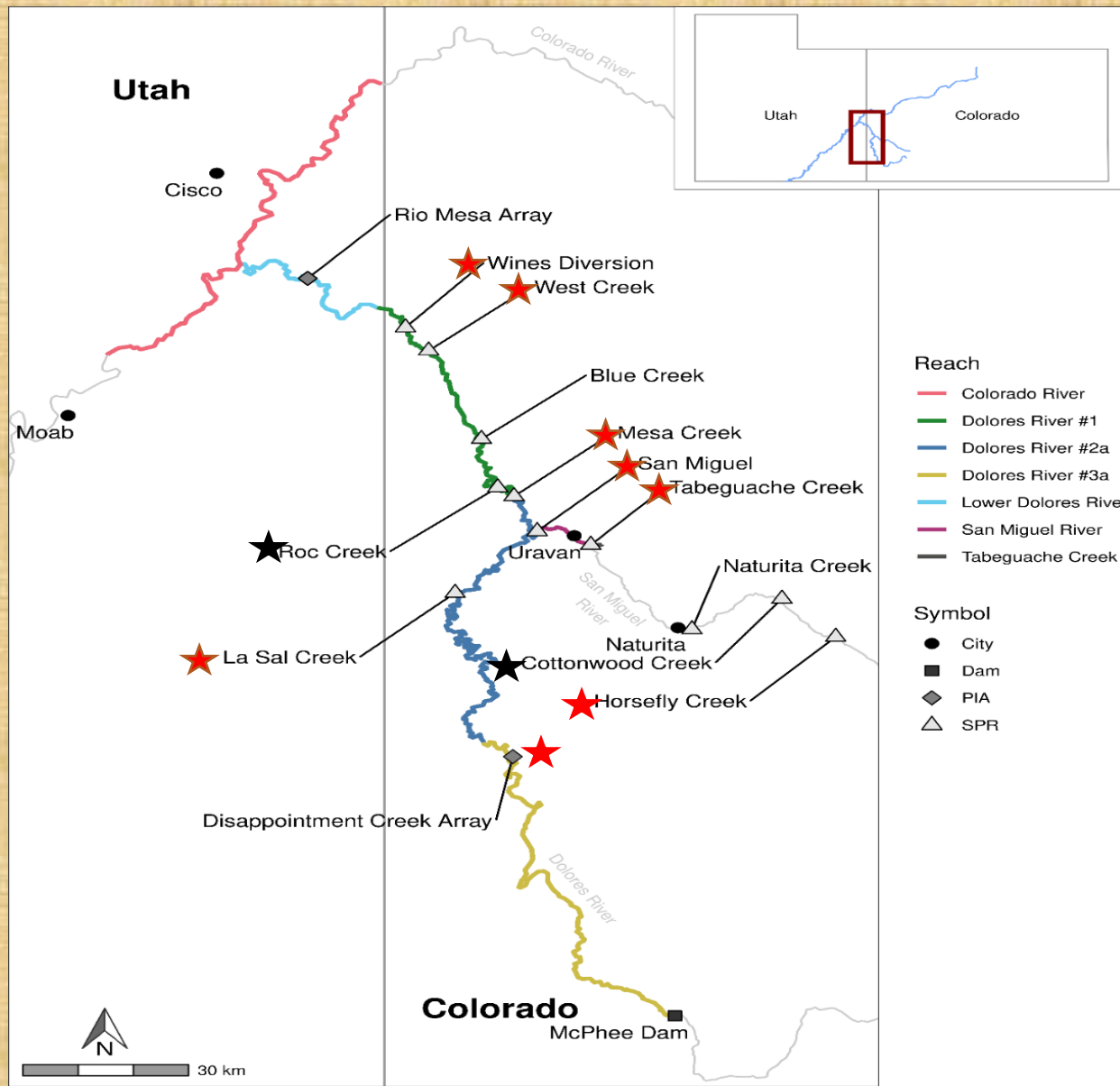
Total Number of Fish Tagged by Year



Total Number of Fish Tagged by Species



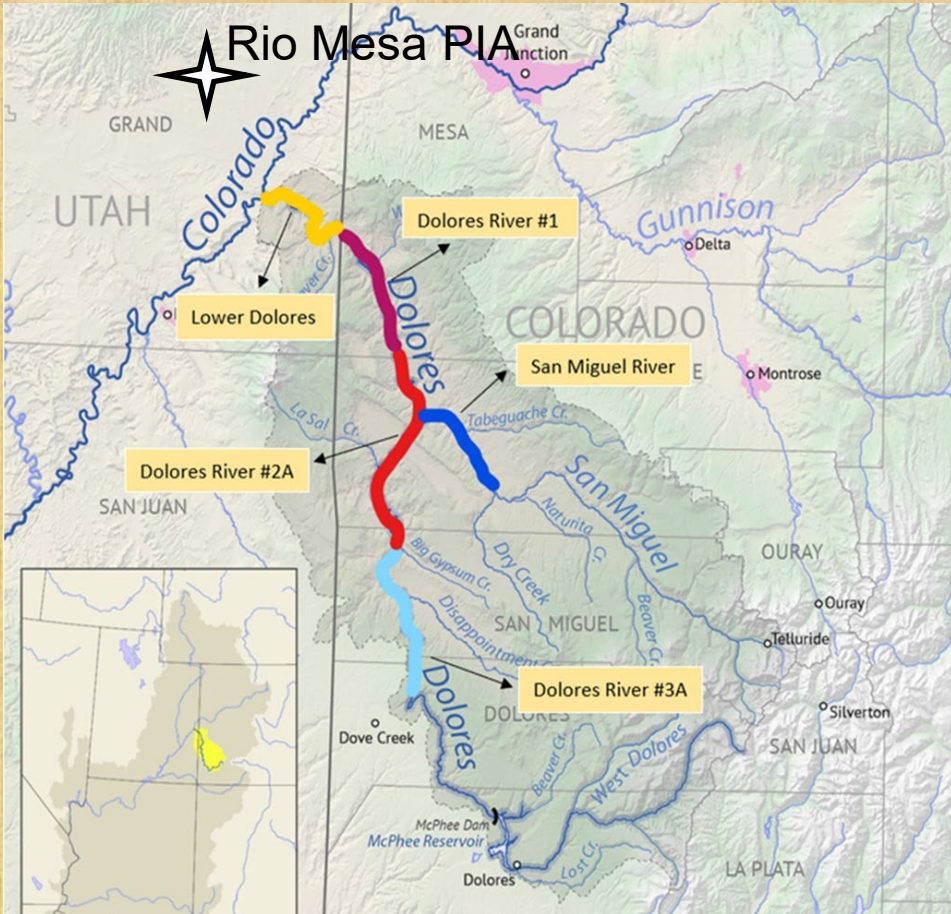




Some Challenges to Passive Monitoring



Species	Description	Colorado River	Lower Dolores	Dolores River #1	Dolores River #2A	Dolores River #3A	San Miguel River
BHS	Total Number Tagged	250	194	26	24	34	293
	Rio Mesa Encounter %	7%	22%	23%	38%	3%	35%
FMS	Total Number Tagged	402	94	89	454	68	333
	Rio Mesa Encounter %	61%	27%	40%	39%	61%	47%
RTC	Total Number Tagged	0	10	8	268	227	61
	Rio Mesa Encounter %	0%	50%	25%	8%	4%	11%



What about endangered fishes?

Historical accounts of upper Colorado River Basin endangered fish

Final report

Revised edition
September 1995

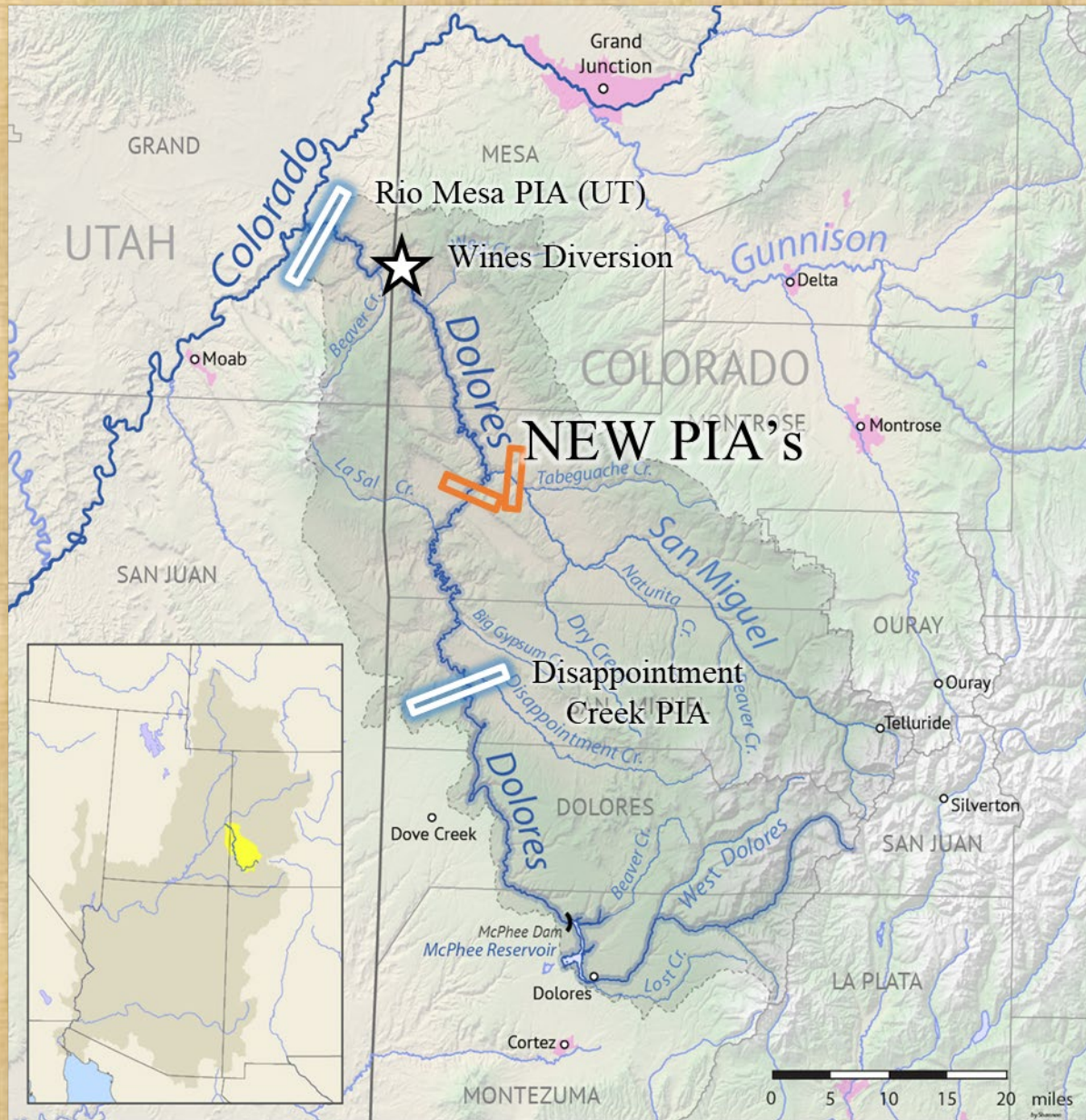
Written by Fred Quartarone

Edited by Connie Young

"One time I hooked one, and I hung it on my saddle, or over my saddle horn, and crawled on and he flapped about then, and I had riding job to stay on that horse. That horse was trying to buck him and me off. After the horse got quieted down a little, I got it up and throwed it over my shoulders to keep him from whipping my horse."

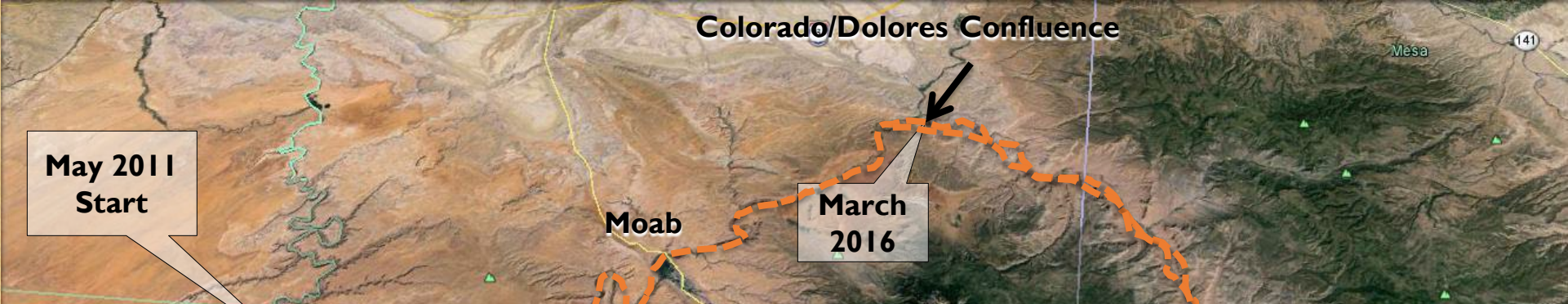
Ortho Ayers- Paradox, CO circa 1920





2022: n=3 Colorado Pikeminnow and n=2 Razorback Sucker @ Wines Diversion

2023: n=1 Pikeminnow @ Bedrock and n=2 @ San Miguel



What We Know Now.....

- Connection to the Colorado River is critical and the majority of native fish only utilize the Dolores River for spawning.
- More work needs to be done on tributary use during non drought years.
- We were viewing the Dolores as a main river instead of viewing it as a tributary to the Colorado.
- Fish passage at Wines diversion is critical.
- Three Species move much more than we ever thought.
- Small proportion of non-natives compared to the Colorado and other rivers

