

# 2008 Dolores River Update

Dolores River Dialogue  
Jim White  
Colorado Division of Wildlife



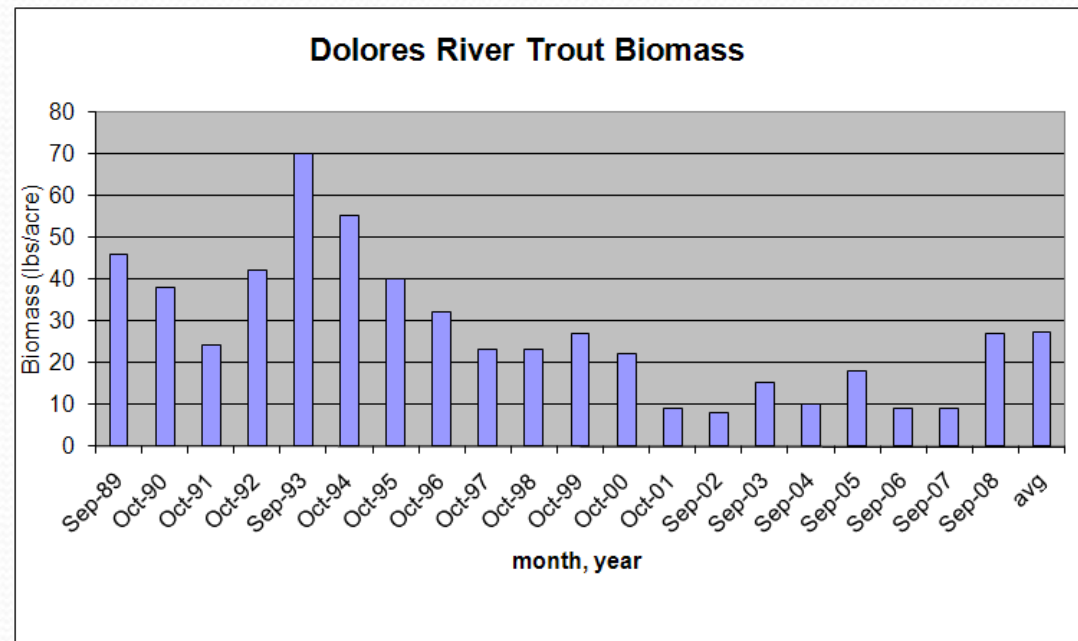
## Trout Fishery

- Bradfield to the Dam is managed primarily as a trout fishery (Dolores project commitment)
- Brown trout are self-sustaining
- Rainbow trout are stocked
- Catch and release only (flies and lures)
- Inventory three historic sites for 19 years at the same water level (40 cfs) and the same time of year (Sept) prior to fingerling stocking (except this year)



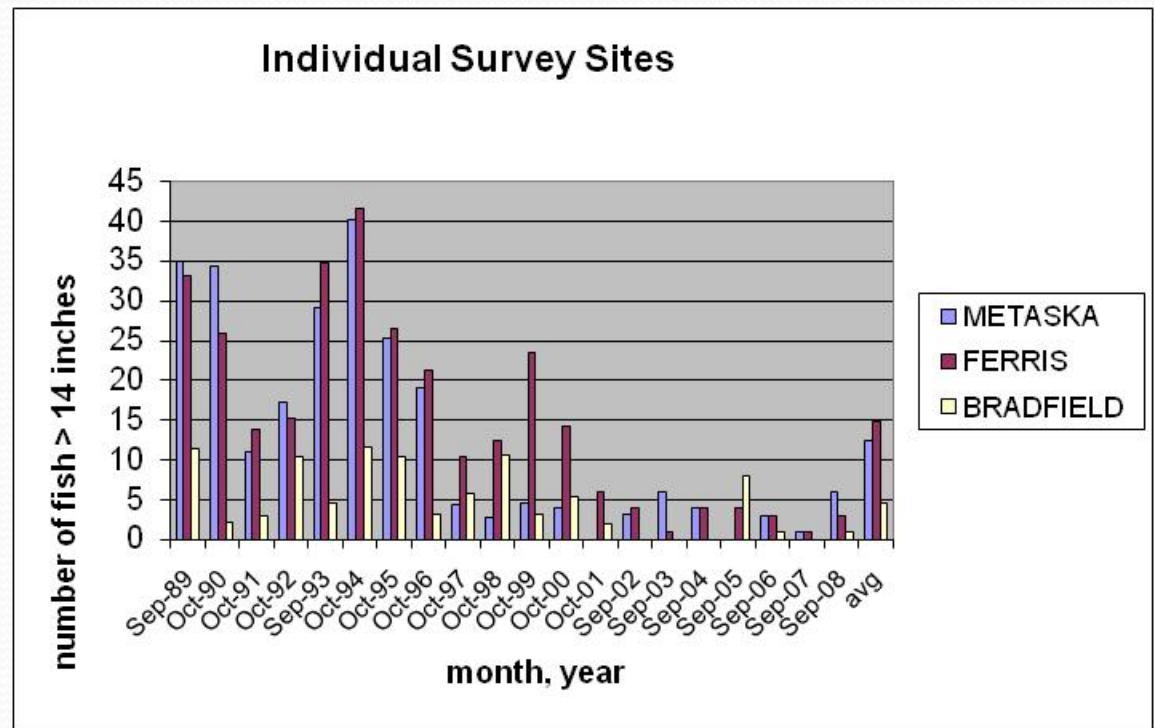
# Status of Trout Fishery (Dam to Bradfield Bridge)

- Biomass of trout up from 9 to 29 lbs/ac (long-term average is 27.3 lbs/ac)
- Management goal is 32 lbs/ac
- Percentage of rainbow trout is up (20%-23%)
- WD resistant rainbows stocked and found at all sites
- No native suckers captured



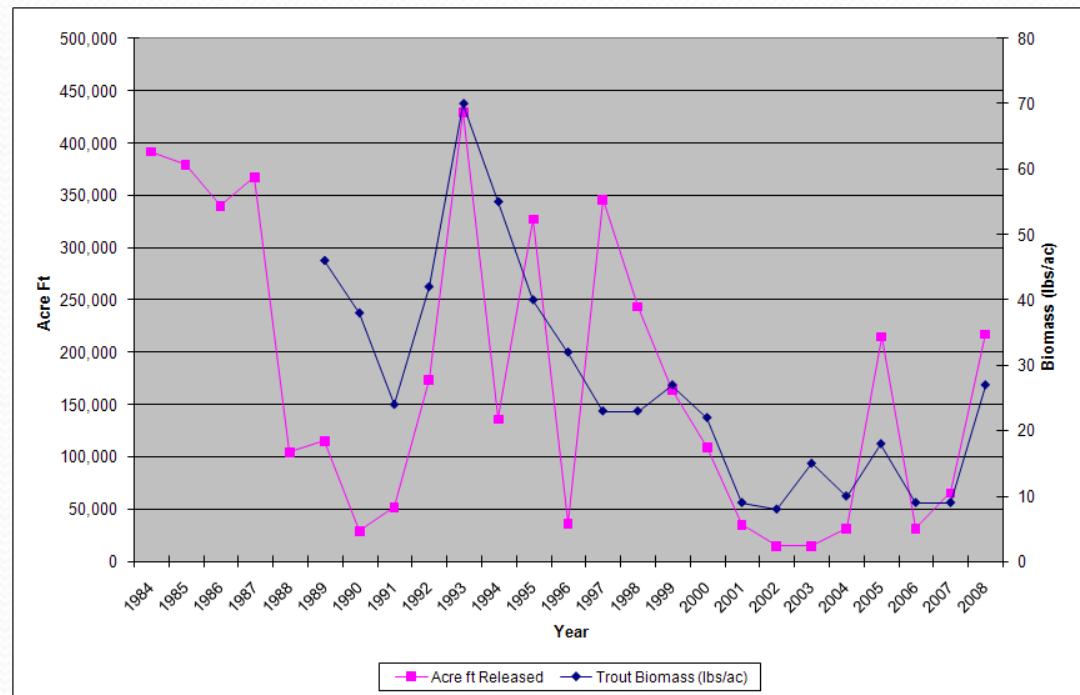
# Size distribution trends

- Marked increase in the number of big fish (primarily brown trout) in the Metaska site.



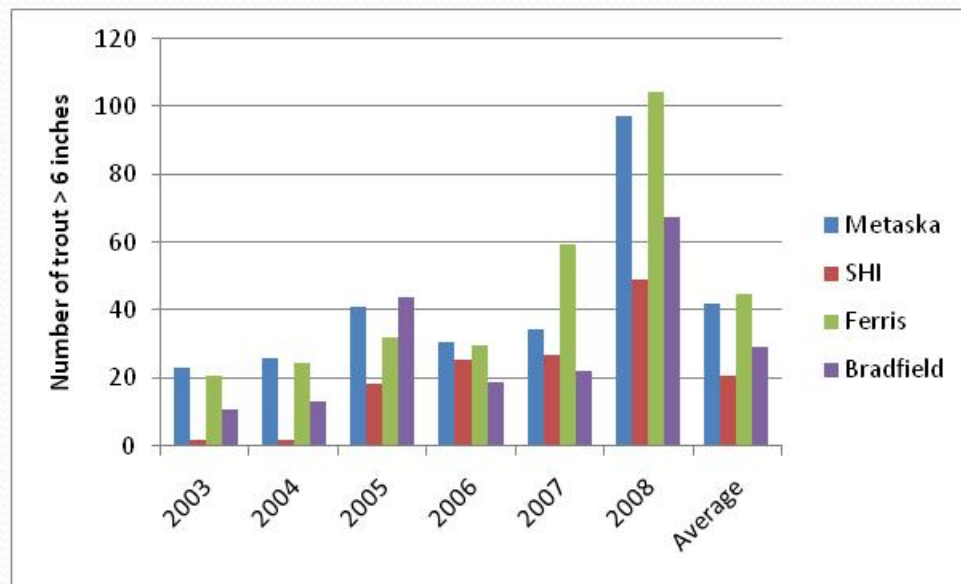
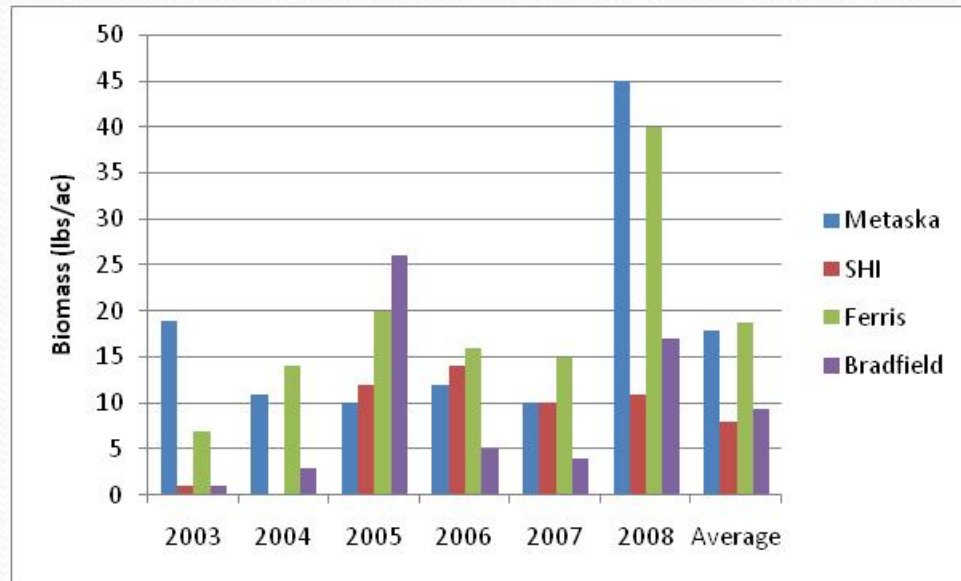
# Trout biomass and water year

- Trout biomass appears to correlate with downstream water deliveries



# Individual Site Results

- Stream improvement is not the answer.
- Average biomass monitored at three historic sites since 1989 = 27.3 lbs/ac
- SHI site = 9.4 lbs/ac (since 2004)
- No significant biological response yet



## New Dolores Native Species

### Paiute Sculpin (*Cottus beldingii*)

Confirmed with morphological  
and genetic testing (C. Gunn,  
CDOW and D. Shiozawa,  
BYU)



## Didymo or “rock snot”

(*Didymosphenia germinata*)

confirmed

Didymo is a native diatomaceous species which can flourish in an invasive manner and is increasingly found in lower elevation and latitude waters enriched by hypolimnetic water releases. Large infestations can reduce the available habitat for macroinvertebrates and young fishes.





## Status of Native Fish Species

- Dolores River from Pyramid Mountain to James Ranch sampled on April 16-17, 2008
- Flows were about 500 cfs
- Sampling time frame objectives were to try and capture native fishes during the spawning period and at higher (more manageable) flows.



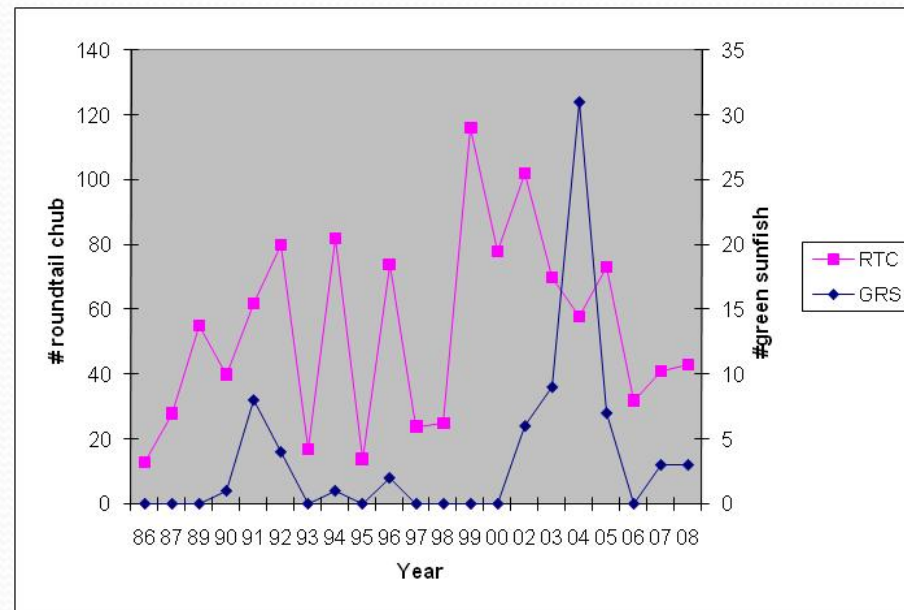
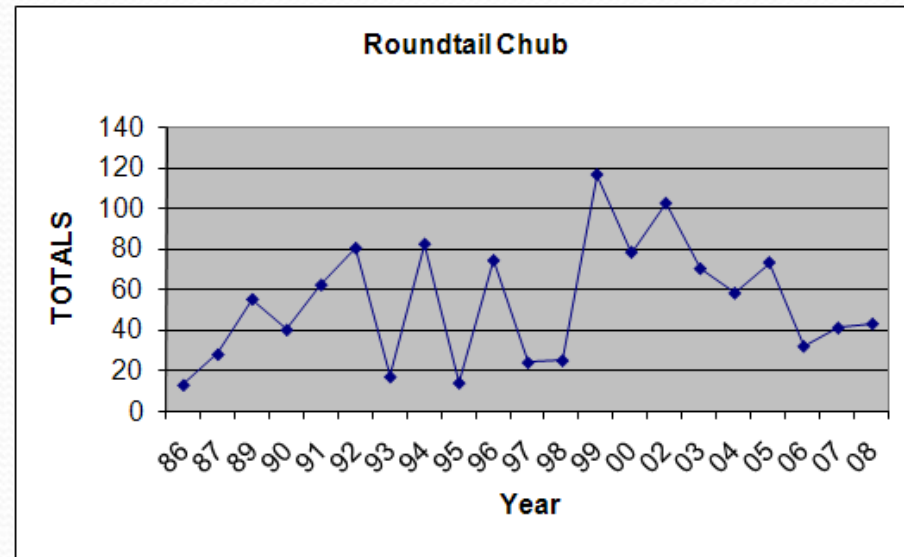
## Results

- A total of only 9 fish were collected in this 14 mile reach of the Dolores River
- 3 brown trout, 1 rainbow, 2 smallmouth bass, 1 speckled dace and 2 roundtail chubs (67% non-native)
- No flannelmouth or bluehead suckers captured
- Water clarity was poor but manageable
- Flow level too high, cold, and turbid. Recommend 400 cfs and survey done in mid-May when possible.



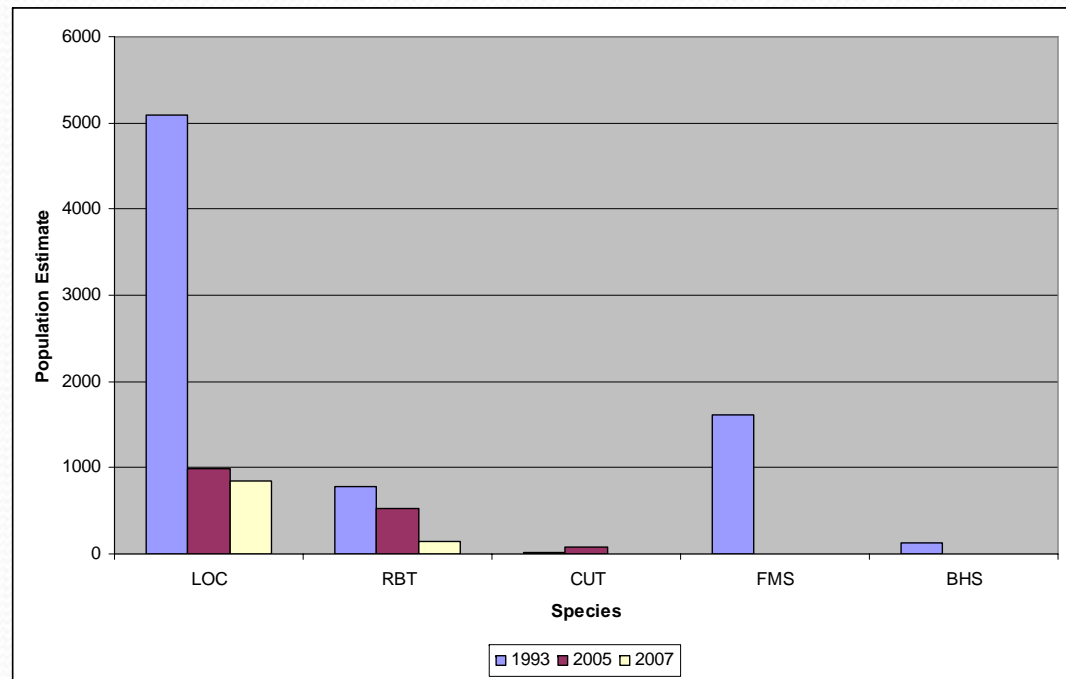
# Dove Creek Pump Station

- RTC abundance was up from last year (29 to 40 fish captured > 80 mm TL)
- No native suckers captured
- 1 YOY smallmouth bass captured; 1<sup>st</sup> recorded at this site



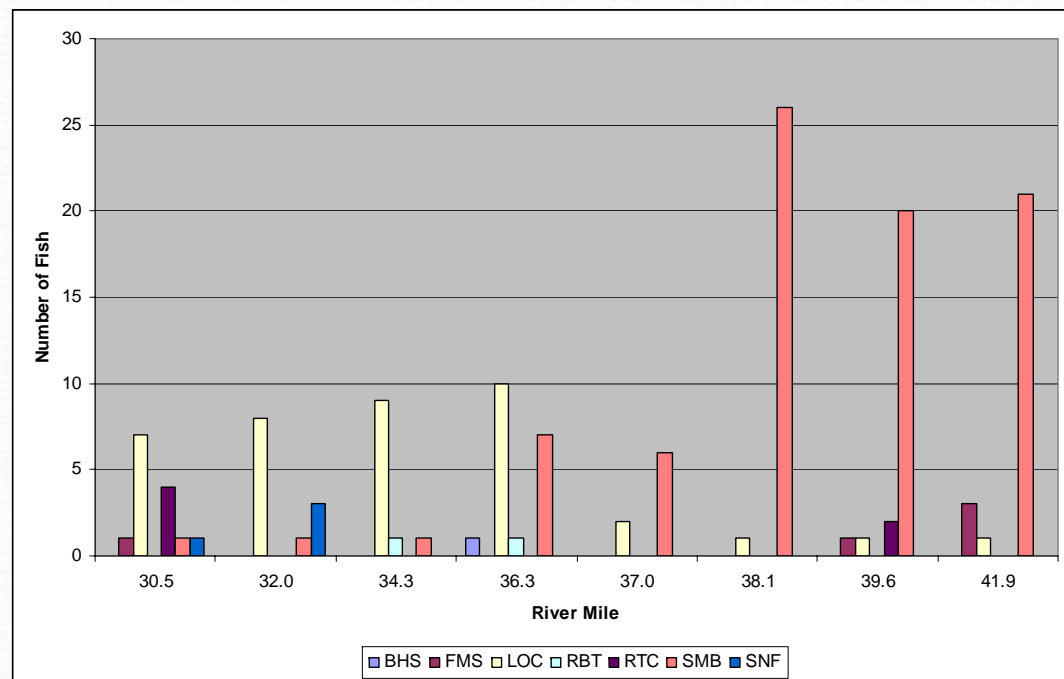
# 2007 Native Fish Surveys

- Nehring's Ponderosa Canyon (Bradfield to Dove Creek pumpstation) survey results
- Note – no FMS or BHS were captured in this two pass mark and recapture 20 mile reach of stream



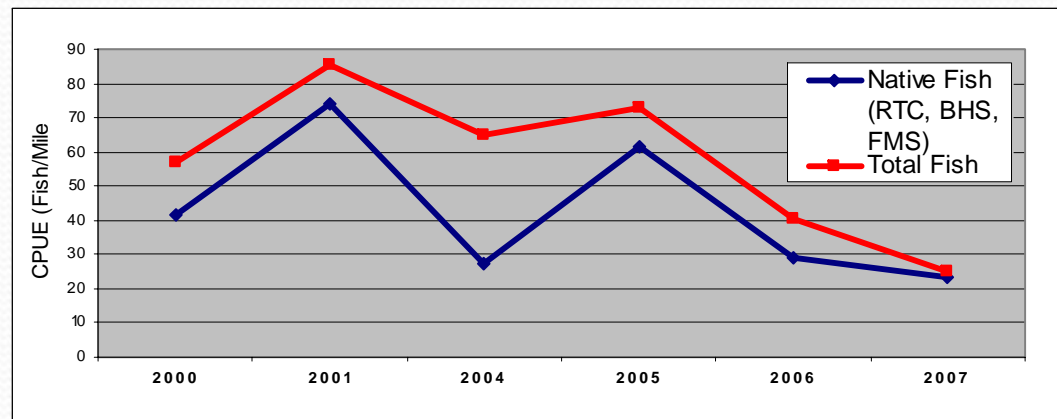
## 2007 Pyramid to Slickrock

- Majority of fish captured were smallmouth bass and trout.
- Few native suckers were captured
- Most of the bass were in a short section of the canyon called the narrows
- Higher baseflows may “squeeze” the reproductive and habitat preferences of these fish



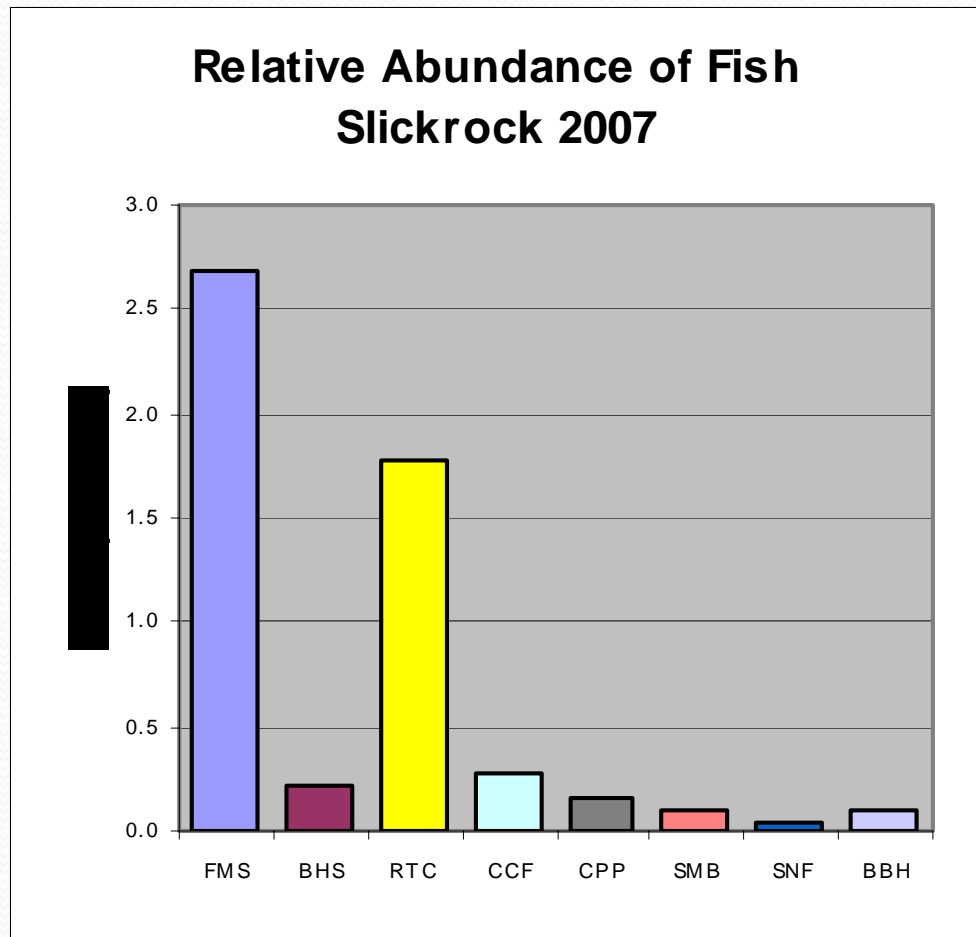
# Big Gypsum Valley

- Below Disappointment Creek
- Data collected during stream flow recommendation study conducted by Rick Anderson
- 2.2 mile section
- Also shows a decline in the abundance of native fish but the assemblage is doing better here than above Disappointment Creek



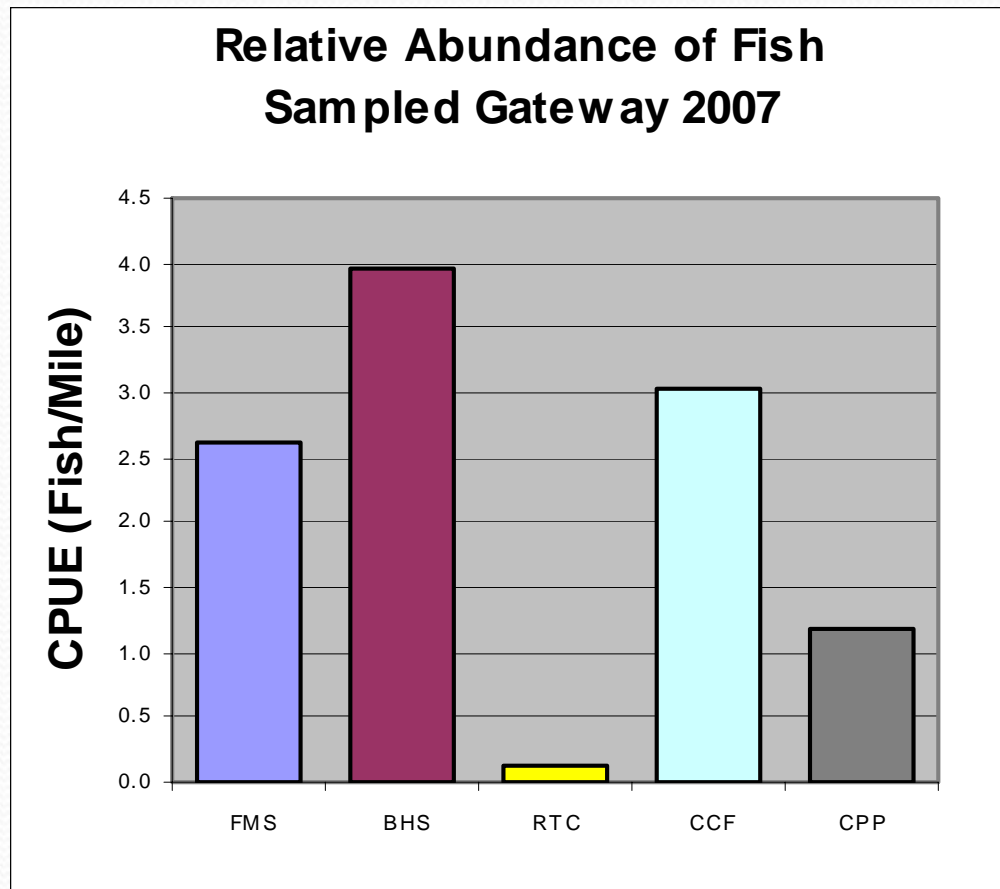
# Slickrock Canyon

- 32 mile reach of the Dolores
- Inventory was a 1-pass effort conducted by Dan Kowalski during early June 2007
- Abundance of natives low but species composition was mostly native fish



# Gateway

- 7 mile reach of stream from Gateway to the Stateline
- Surveyed in 2007 by Dan Kowalski (1-pass)
- Only site where bluehead sucker was relatively abundant
- This site is below the San Miguel confluence which enhances baseflows





# Management Recommendation

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- Adequate base flows are critical to native suckers whose primary habitat consist of deep riffles (BHS) and runs (FMS; Anderson and Stewart 2007).
- Better baseflows benefit trout as well as the native fish assemblage
- Work with DRD and Dolores Biology team to identify willing water leasers during dry years per HB 1280
- Thermal criteria could be used to evaluate effectiveness of any additional water leased during critical time periods
- Continue releasing flows through the bottom outlet works
- Continue fish monitoring in historic sites as well as native longitudinal surveys (if water available) in May at 400 cfs.
- Continue removing SMB
- Continue stocking WD resistant rainbow trout

