

San Juan River Small-bodied Monitoring: 2014 Data and Analysis

Gilbert, E.I. and M.E. Ruhl, New Mexico Department of Game and Fish
SJ RIP Coordination Committee, May 2015



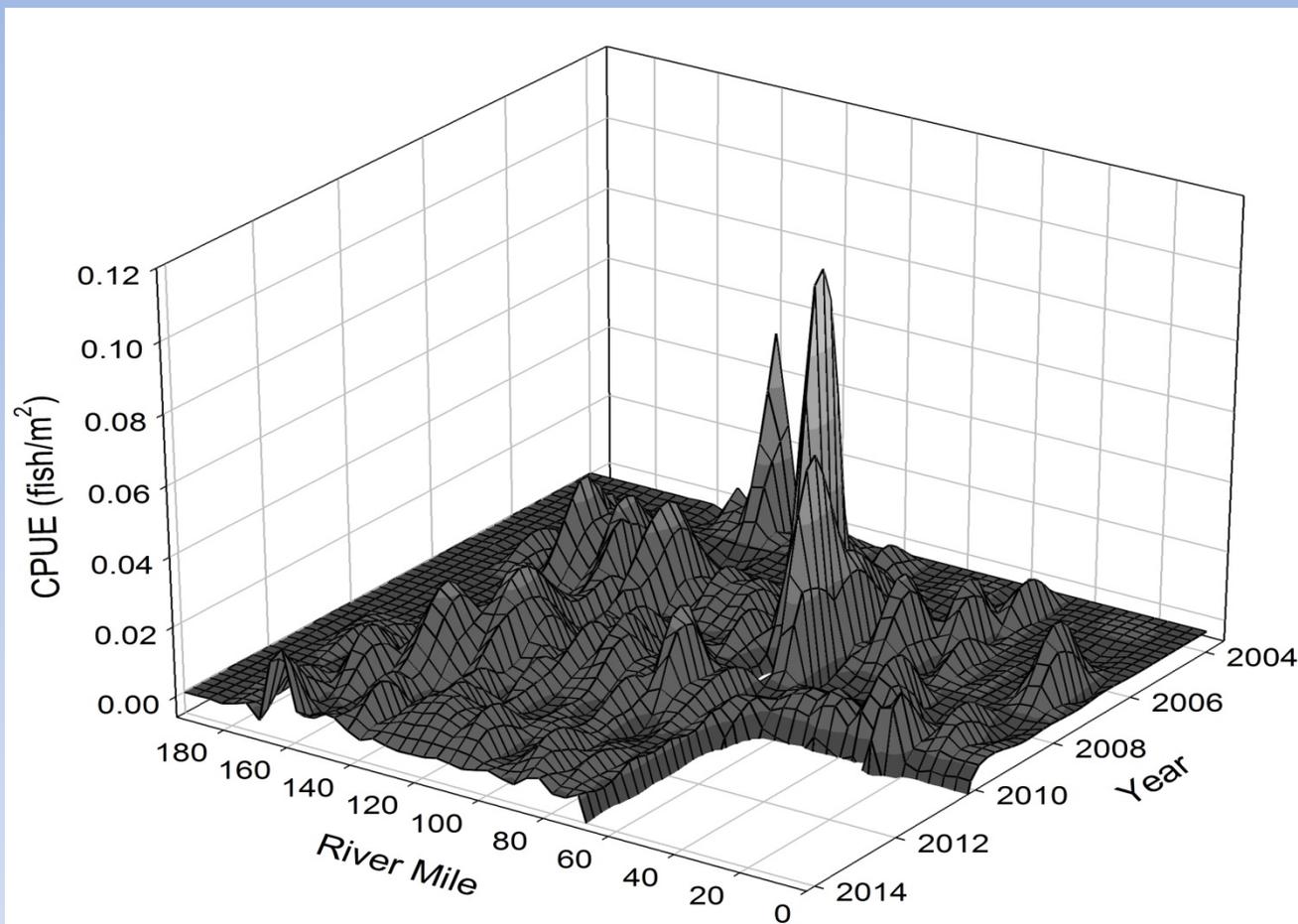
Element 4 - Monitoring and Evaluation of Fish and Habitat in Support of Recovery Actions

- **Goal—4.1** Monitor Fish Populations of the San Juan River Basin.



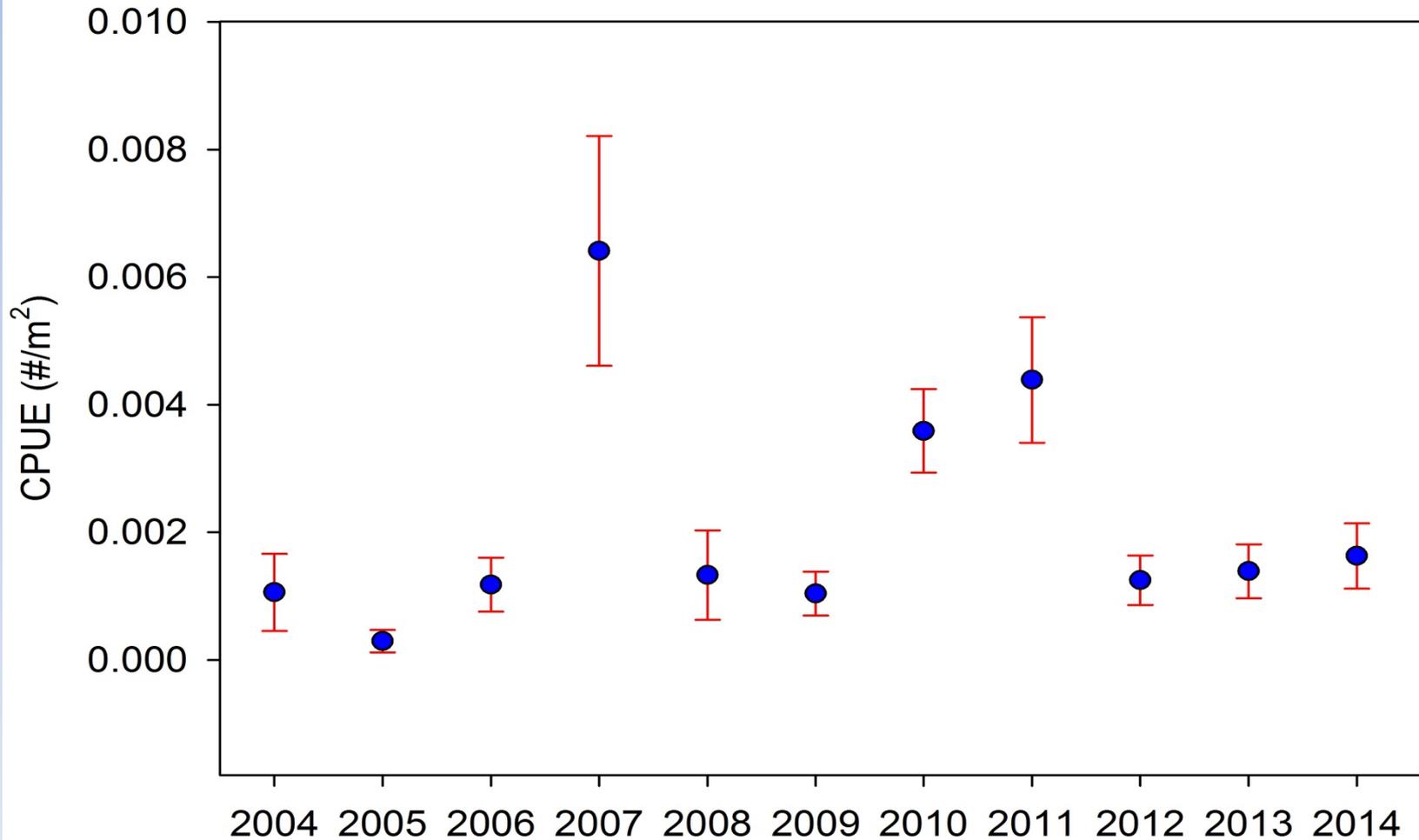
- **Action 4.1.2** Implement a Standardized Monitoring Plan to track the presence, status and trends of endangered fish populations.
 - **Task 4.1.2.2** Conduct juvenile and small-bodied fish sampling to determine if young fish are surviving and recruiting into the population and locate areas and habitat used for rearing.

Colorado Pikeminnow:



	1998-2000	2001-2003	2004-2012	2013	2014	TOTAL
Number Captured	10	0	240	16	27	293

Colorado Pikeminnow Mean CPUE



Element 4 - Monitoring and Evaluation of Fish and Habitat in Support of Recovery Actions

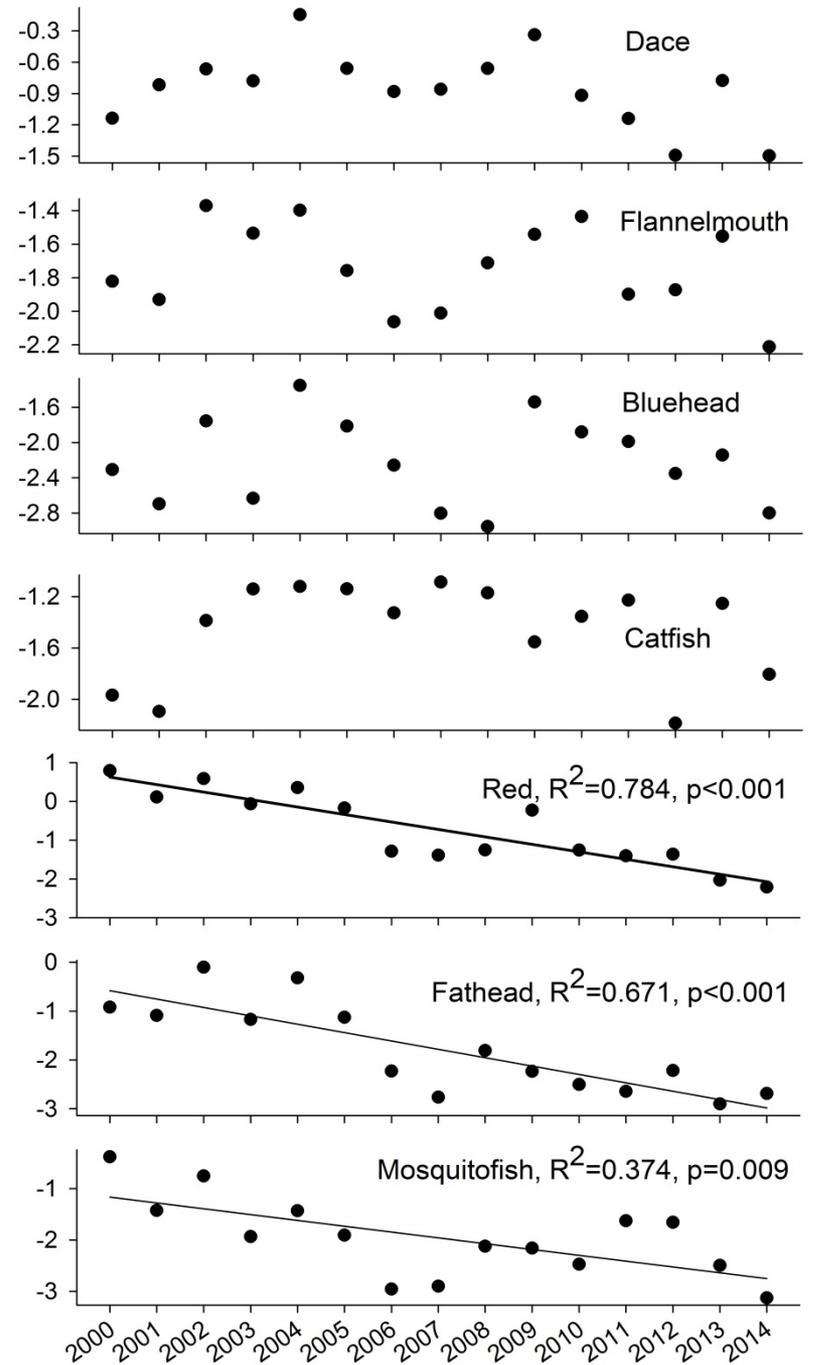
- **Goal—4.1** Monitor Fish Populations of the San Juan River Basin.
 - **Action 4.1.1** Develop and implement a standardized monitoring program for fish.
 - **Task 4.1.1.1** Develop and revise a Standardized Fish Monitoring Plan to assess the presence, status, and trends of Colorado pikeminnow and razorback sucker and fish community.
 - **Task 4.1.1.2** Analyze and evaluate monitoring data and produce Annual Fish Monitoring Reports to ensure that the best sampling design and strategies are employed.

Other Fishes

Natives

Nonnatives

Density Log(fish/m²)



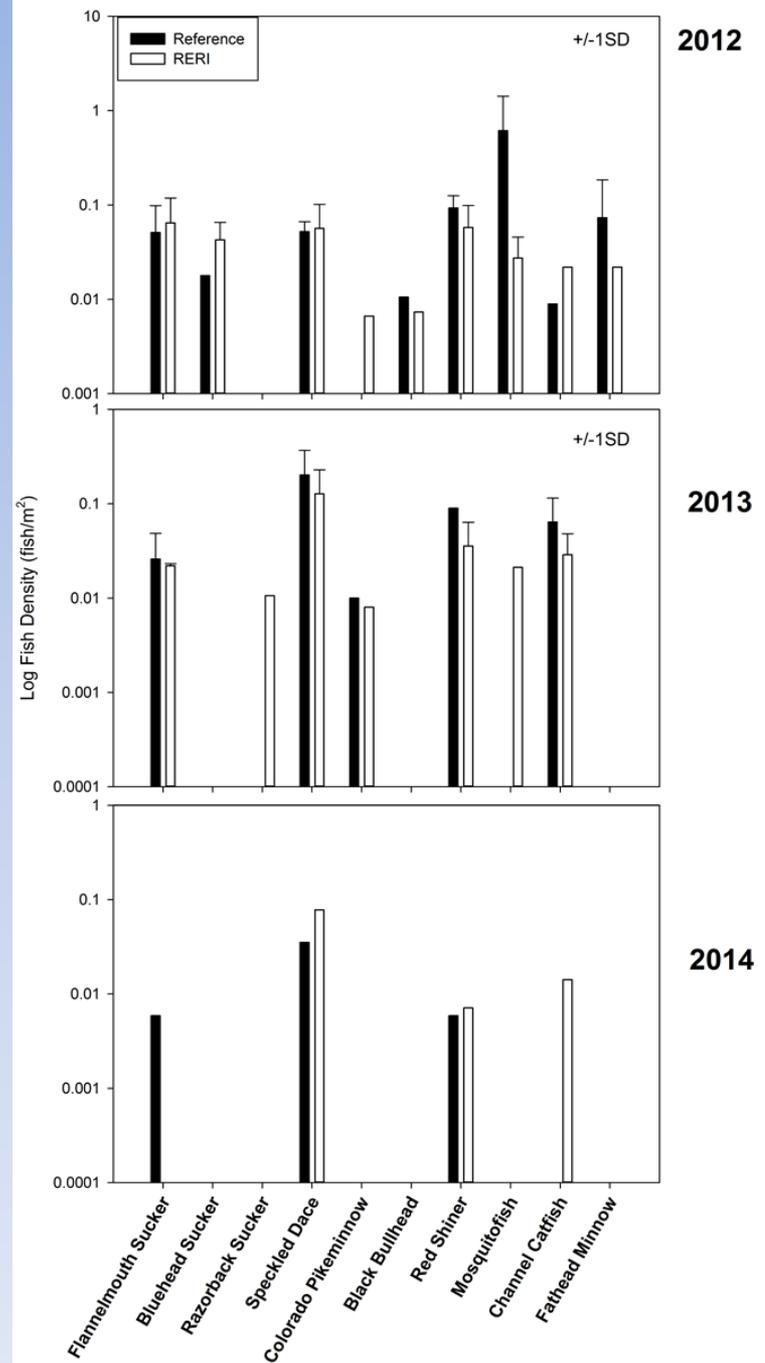
Element 4 - Monitoring and Evaluation of Fish and Habitat in Support of Recovery Actions

- **Goal—4.3** Monitor and Evaluate Habitat Restoration Strategies and Projects
 - **Action 4.3.2** Monitor Habitat Restoration Projects
 - **Task 4.3.2.1** Monitoring TNC's restoration sites



RM 132.2S Outlet after restoration ; B. Westfall 2012

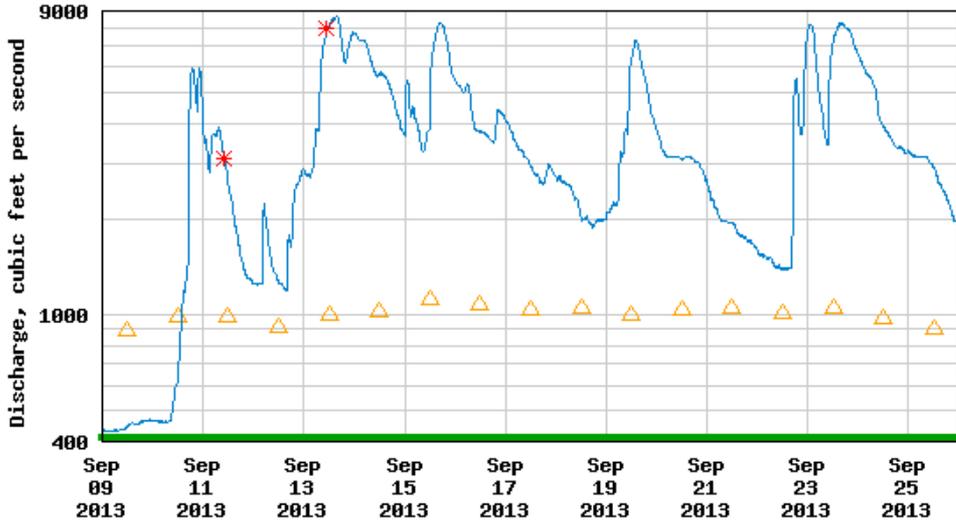
RERI and Control Channels Fish Densities



RERI and Reference Sites Sampled by Year

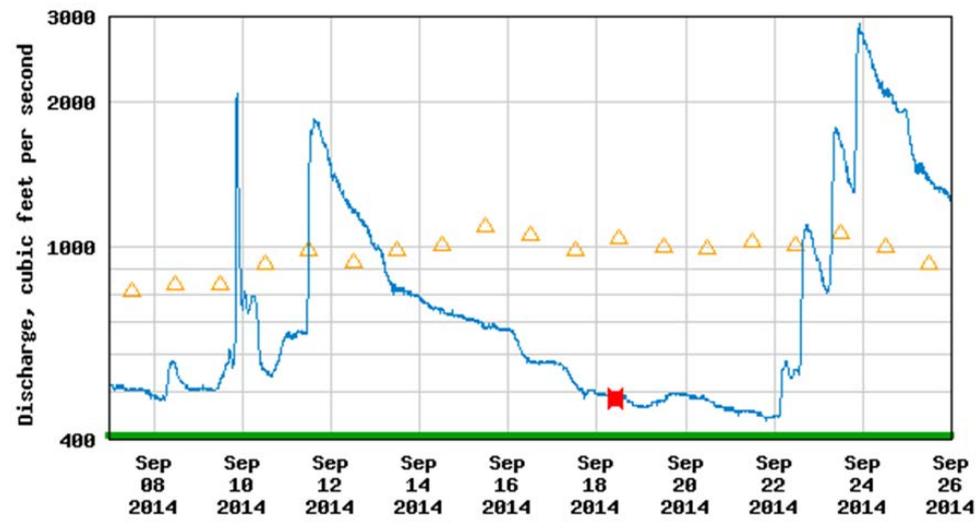
Site Type	RM	2012	2013	2014	Notes
Reference	134.3	Sampled	Not Sampled	Sampled	
Reference	133.5	Sampled	Not Sampled	Dry	
RERI	132.2	Sampled	Sampled	Sampled	
RERI	132	Dry	Sampled	Dry	
Reference	130.1	Sampled	Sampled	Sampled	No Fish Captured
RERI	130.7A	Sampled	Sampled	Dry	
RERI	130.7B	Sampled	Not Sampled	Sampled	No Fish Captured
RERI	128.6	Not Sampled	Not Sampled	Dry	
RERI	127.2	Sampled	Sampled	Dry	
Reference	122.7	Sampled	Sampled	Dry	

USGS 09371010 SAN JUAN RIVER AT FOUR CORNERS, CO



△ Median daily statistic (36 years) * Measured discharge
— Discharge — Period of approved data

USGS 09371010 SAN JUAN RIVER AT FOUR CORNERS, CO



△ Median daily statistic (37 years) — Period of approved data
— Discharge * Measured discharge

Graph courtesy of the U.S. Geological Survey

Summary

Endangered Fishes

Colorado Pikeminnow captured in similar densities throughout the river in 2014

No captures of Razorback Sucker and captures of Colorado Pikeminnow were likely stocked fish

TNC Restored Secondary Channels/RERI

The fish assemblage appeared similar in composition and density as compared to naturally flowing secondary channels in previous years

However, very limited data from 2014 limits additional conclusions

Sampling on San Juan River above Animas River

No Colorado Pikeminnow or Razorback Sucker captured



Acknowledgements

SJRIP

NMDGF Field Crew

USFWS Field Crew

Nate Franssen