

A person wearing a tan shirt and waders is holding a brown trout in a stream. The trout has a yellowish-gold body with dark spots and a reddish-orange tail. The background shows the stream water and some greenery.

Trout Regulation Change Proposal-Pierce County & Surrounding Streams

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St. Croix, Pierce and western Dunn Counties

Objectives

- Background of historic conditions and changes in trout streams locally
- Rush River history
- Current conditions
- Goals for the fishery
- Steps for improvement



History

- Trout populations have changed dramatically within the last 20-30 years
- Improved habitat and water quality and quantity
- Reduction in stream temperatures
- Stocking reductions
- Classifications and reclassifications of streams
- High natural reproduction of trout
- High density trout populations

Rush River

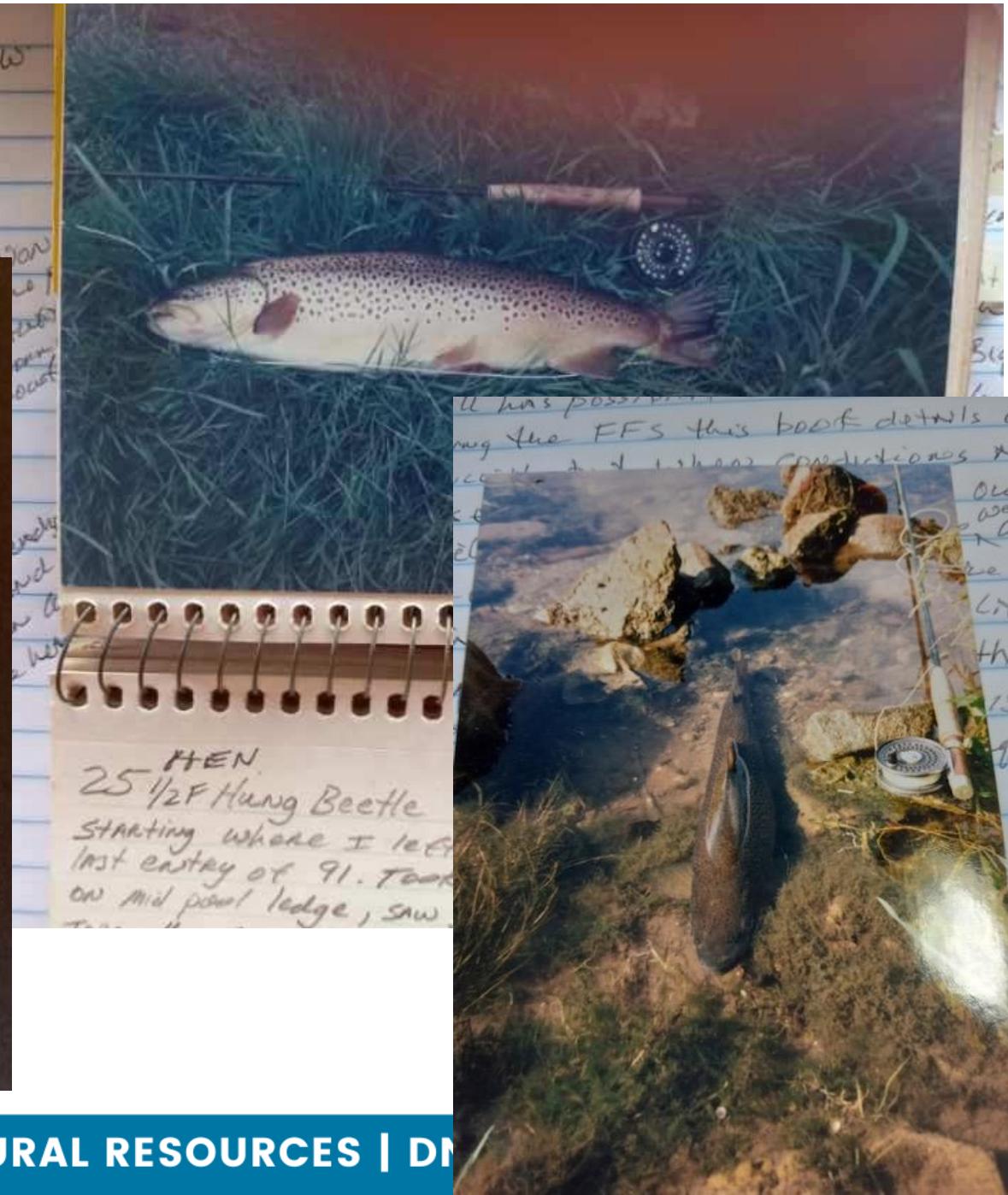
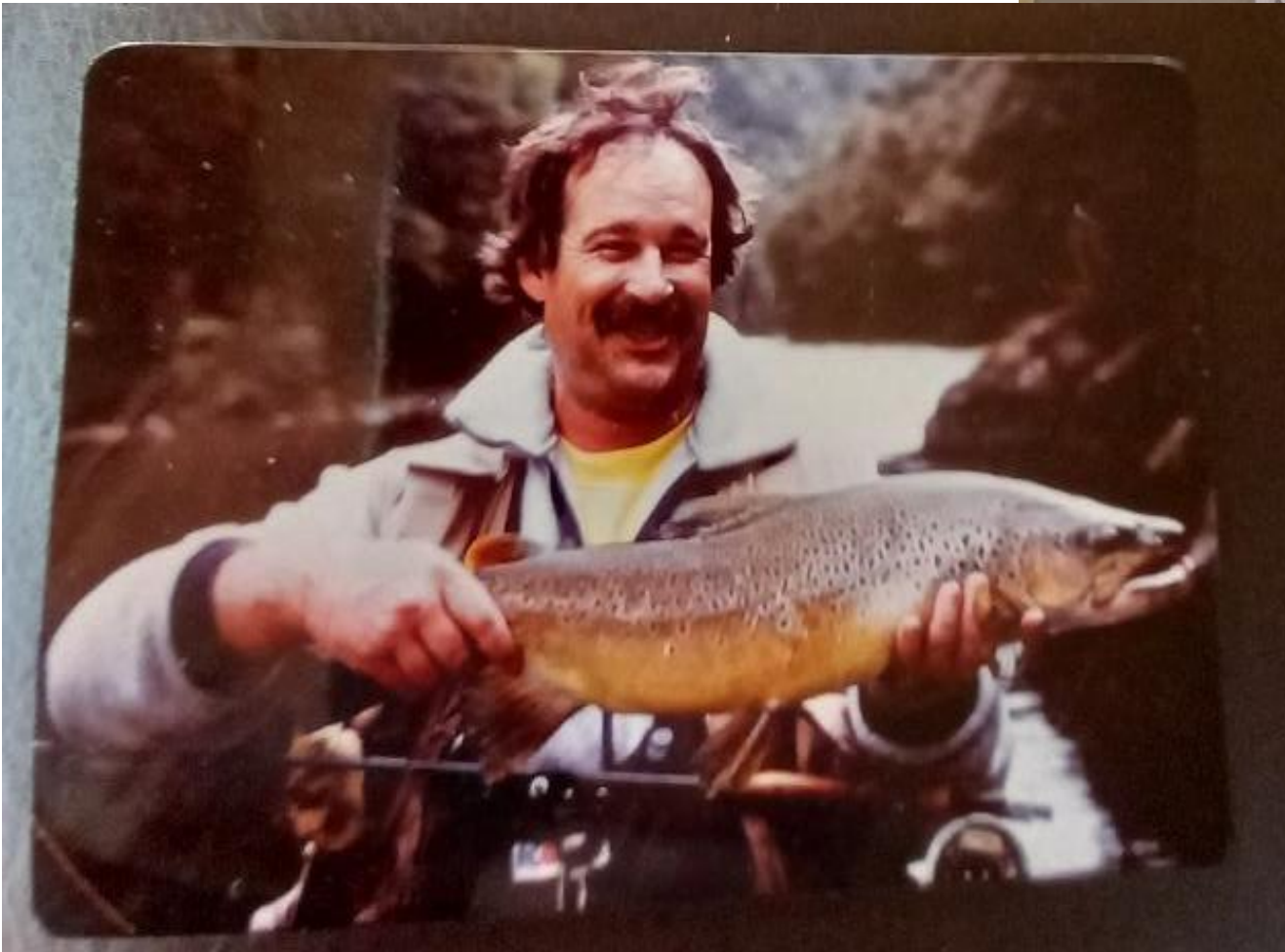
- Dependent on stocking from the 1960s – early 2000s
 - Brown and rainbow trout stocking to provide fishing
- Warm water temperatures and poor habitat
 - Lack of natural reproduction and survival
- Stocking ceased in 2007
- Pierce County portion was reclassified to Class I
- Colder water temperatures and improved habitat
 - Improved farming practices, CRP, increased precipitation etc...

Rush River

- High natural reproduction
- High annual survival
- No stocking
- Reduced forage base because of colder water temperatures



Rush River

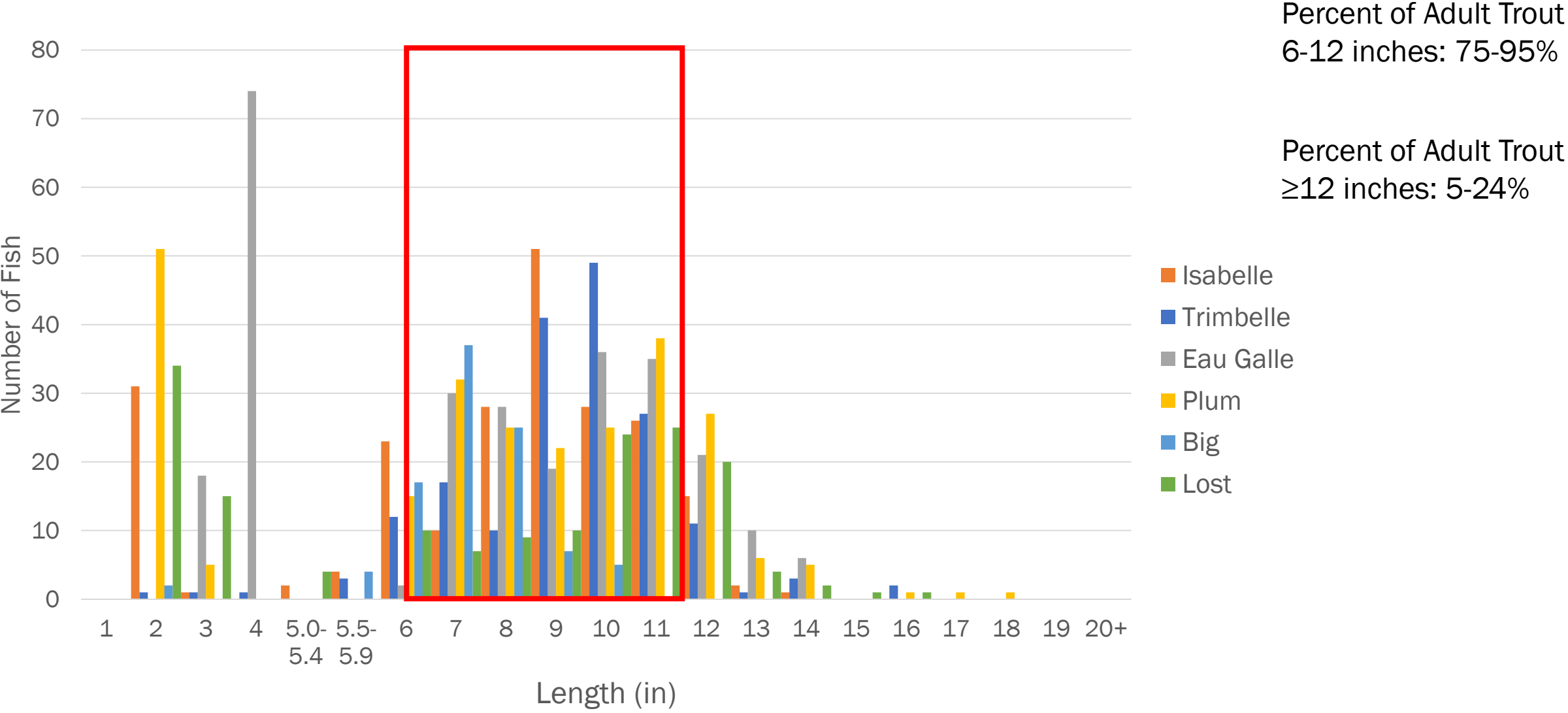


Rush River currently...

- Size structure has changed dramatically
- Fish condition is lower because of change in forage base and high densities
- Fewer fish reach large trophy size

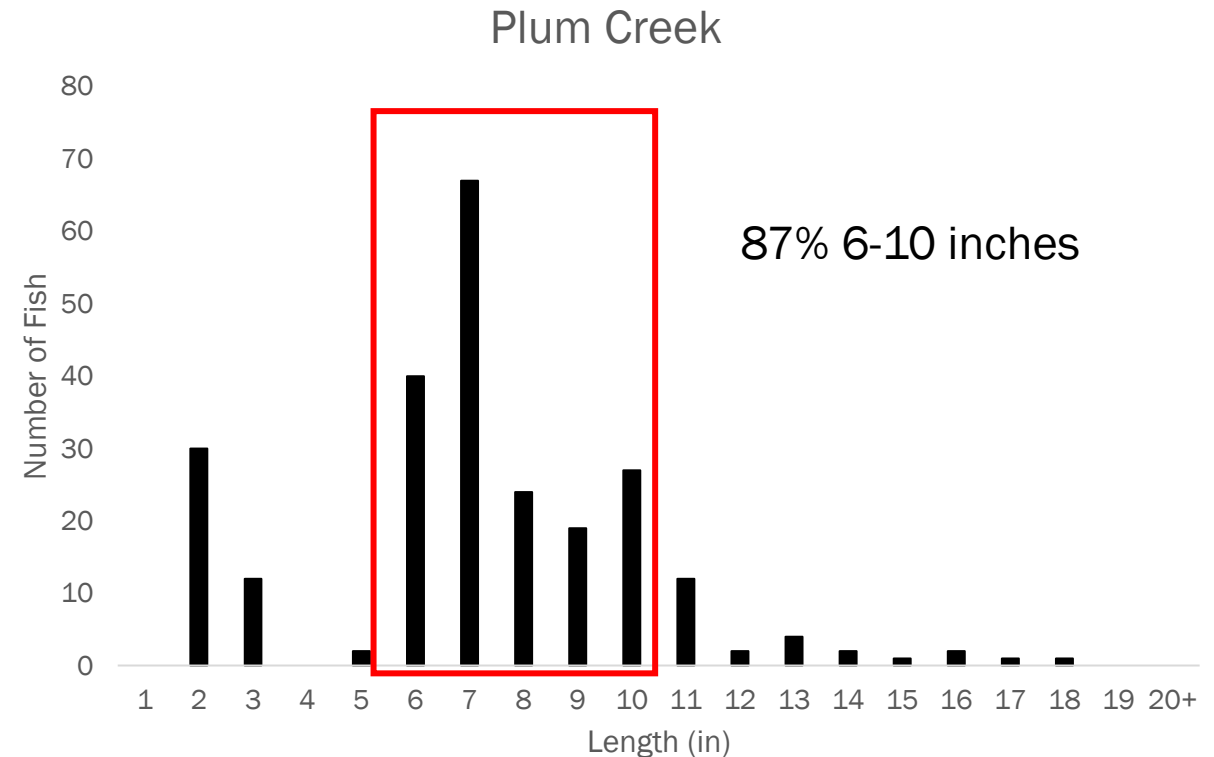
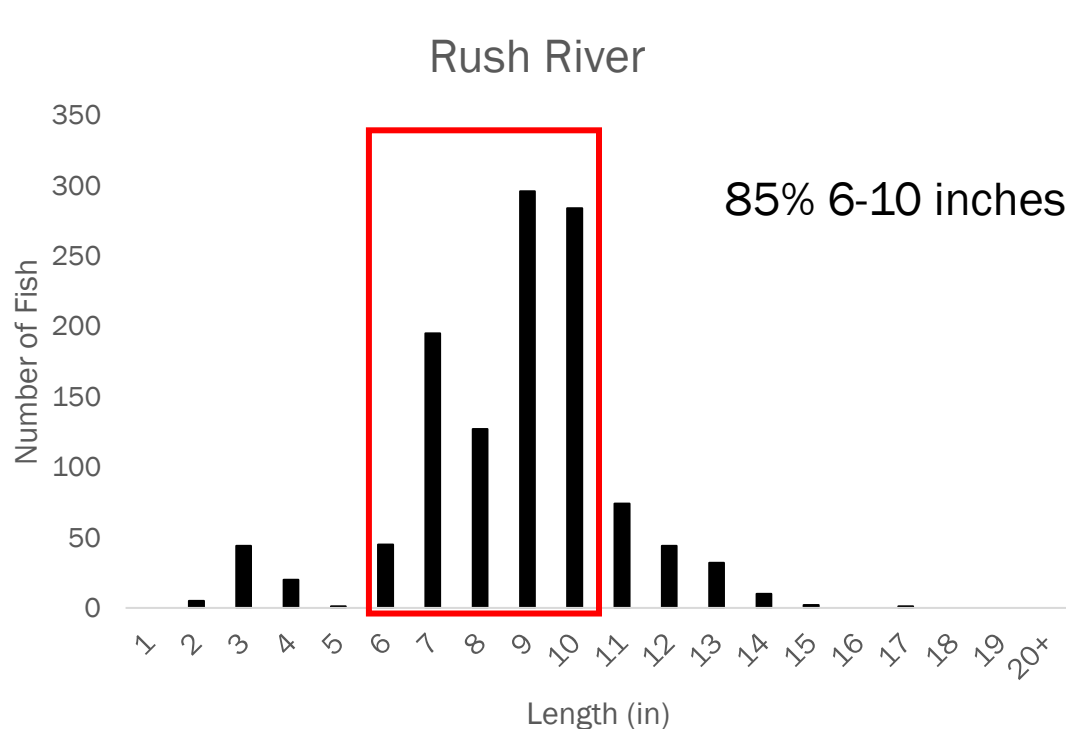


Trout Length Distribution



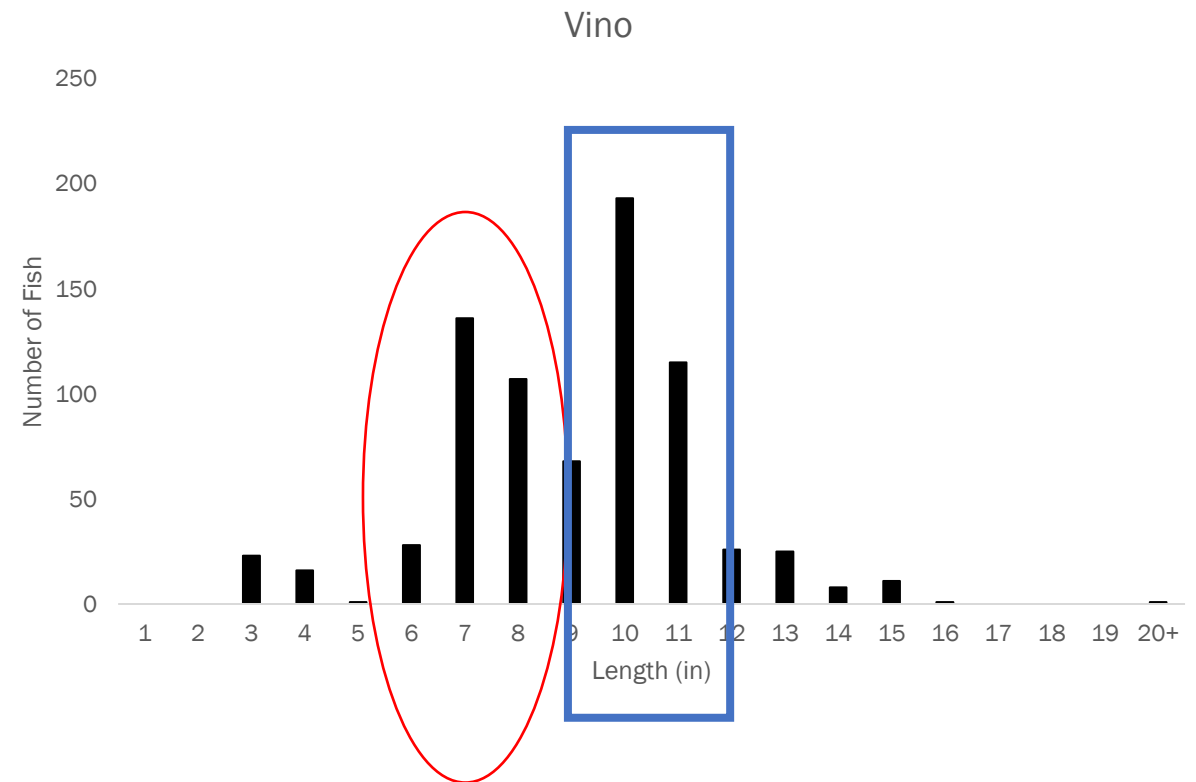
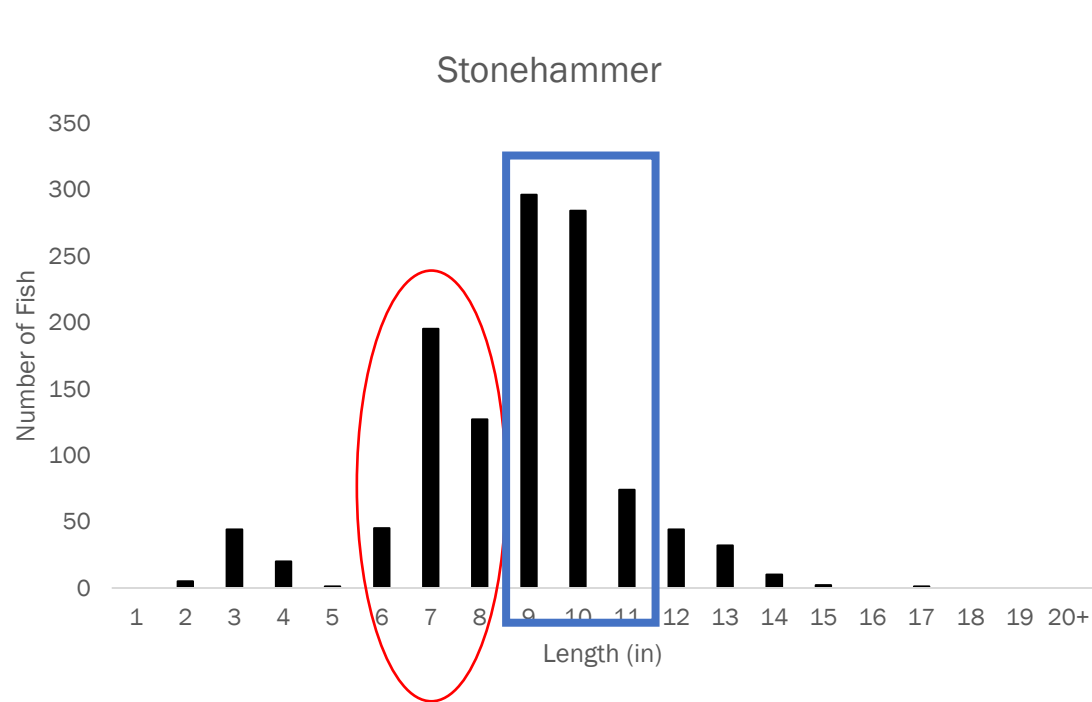
High Densities of Small Fish

- Majority of fish are in the 6-10 inch range
- Consistent patterns annually because of high and consistent rates of natural reproduction and recruitment



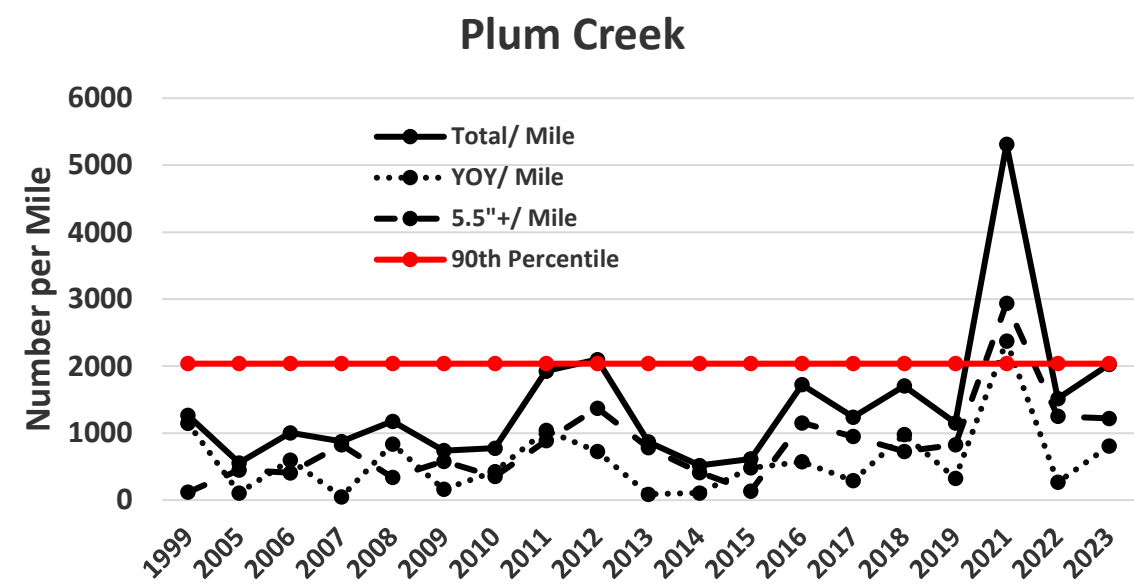
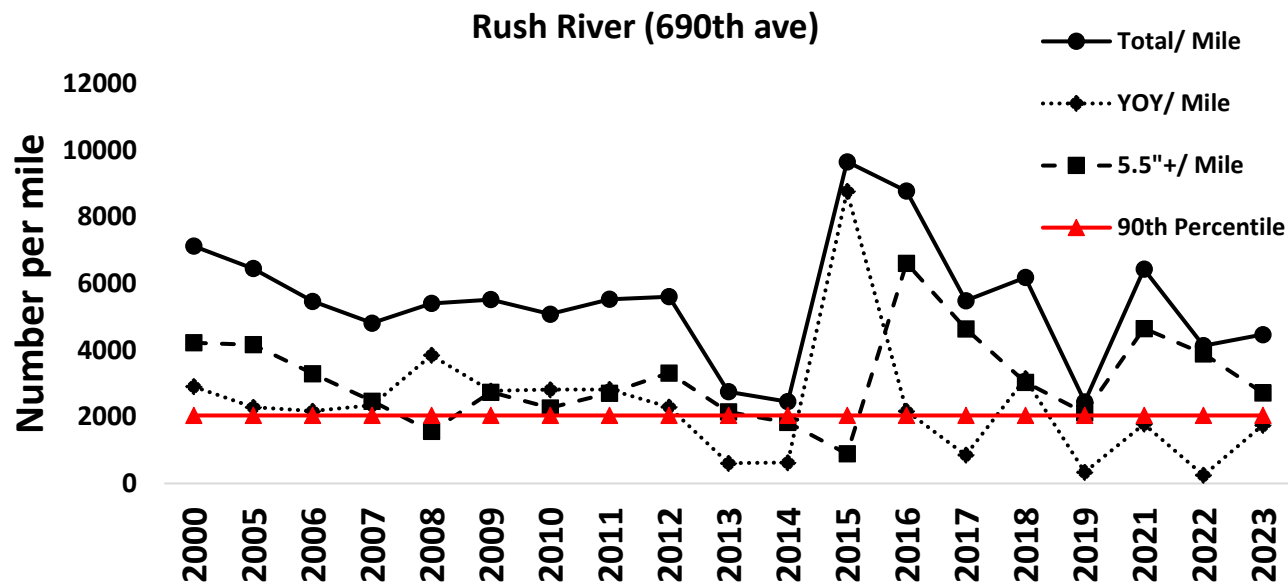
Survival and Recruitment

- Survival and recruitment is high



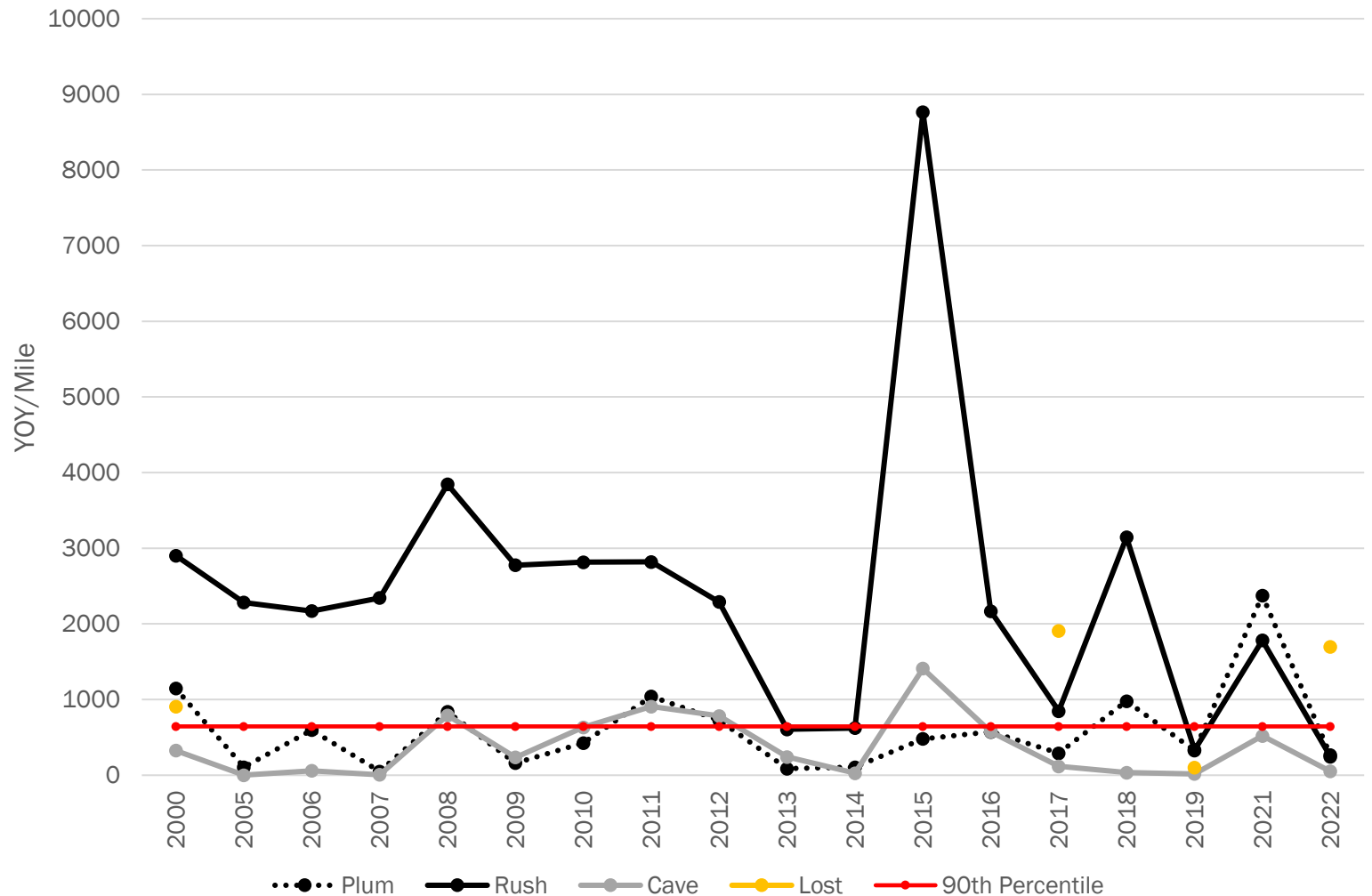
Status of Trout Populations

- Class I streams have very high-density brown trout populations
 - Abundance on average ranges from 3000-5000 fish per mile annually
 - 95th percentile for Class I trout streams in the Driftless Area



Natural Reproduction

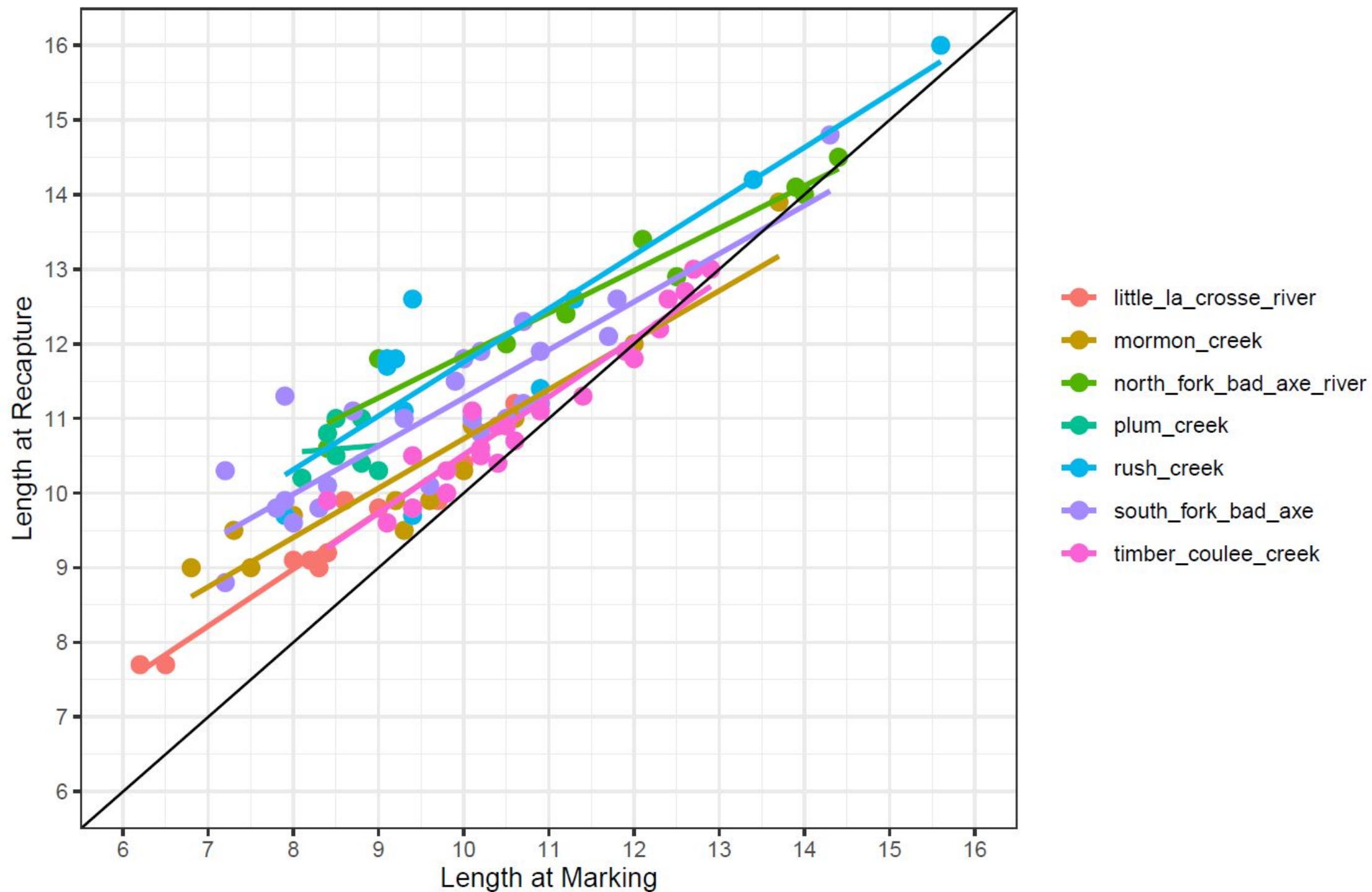
- Natural reproduction is strong and consistent
- *Cave Creek averages 400 YOY/mile-80th percentile



Density Dependence

- High densities can lead to:
- Slow growth rates
- Poor condition of fish
- Poor size structure
- Reduced maximum size





Goals for the Trout Fishery

- Reduce over-abundant small fish (6-12 inches)
- Improve size structure of populations
- Increase the number of fish larger than 12 inches
- Improve trout condition and growth potential
- Provide higher quality trout fisheries



Regulations

- Current regulation of 12 inch minimum is no longer appropriate on these streams
- Protects the majority of fish from harvest
 - Causes a “stacking up” of fish under the length limit
 - Increases the effects of density dependence
 - Protecting young fish until they reach maturity is not necessary with the high abundance of fish
 - Fish reach maturity at smaller sizes
- Focuses harvest on large individuals

Regulation Proposal

- Proposed 12 inch maximum length limit and 1 over 12 inches may be kept, 5/day bag limit
 - Focus harvest of abundant, small trout
 - Improve growth rates by reducing density of fish in the 6-12 inch range
 - Protect large fish
 - Aid in improving size structure

Kinnickinnic River Regulation Evaluation

- 12 inch maximum length limit, 5 bag
 - Effective in 2016
- 7 inch minimum length limit
 - 72% of trout 7-11 inches
 - 1% of adult trout ≥ 12 inches
- Current regulation
 - 67% of trout 7-12 inches
 - 3% of trout ≥ 12 inches
- Resulted in a 2% increase of larger trout and reduced densities of 7-11 inch trout by 5%

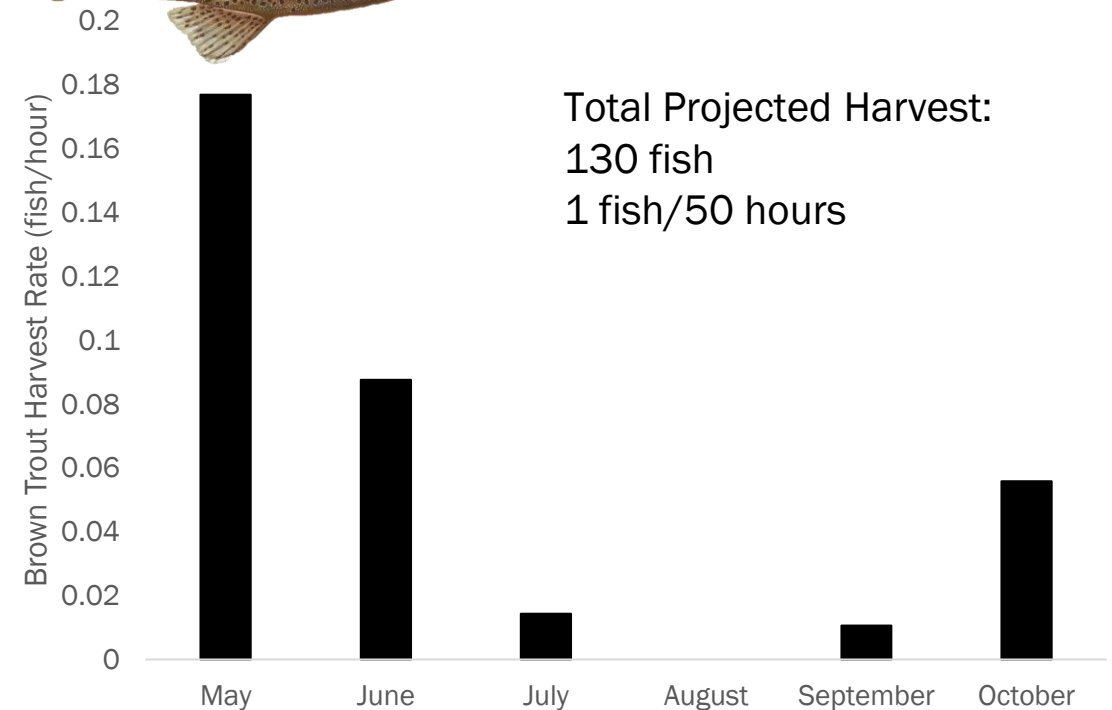
Trout Harvest

- Harvest is minimal!
 - Very few trout anglers harvest
 - Catch and release
- 2021 Rush River Creel survey
- Extreme decline in harvest by 73% in 1988
- Similar low harvest in West Fork Kickapoo River-540 fish or 1 fish/167 hours

Rush River: Harvest

- Extremely low harvest-51 trout were harvested
 - 0.04 brown trout/hour
- Projected harvest-130 brown trout for the season
- No difference between NR and resident anglers
- Reported lengths of fish harvested-10-17 inches, mean length of 13.4 inches

	1988		1992		2021	
	Martell	El Paso	Martell	El Paso	Martell	El Paso
Harvest	152	97			21	30
Ave Daily Harvest	0.3/hour	0.3/hour	0.1/hour	0.01/hour	0.03/hour	0.05/hour
Total Harvest	644	328	242	94	145	114

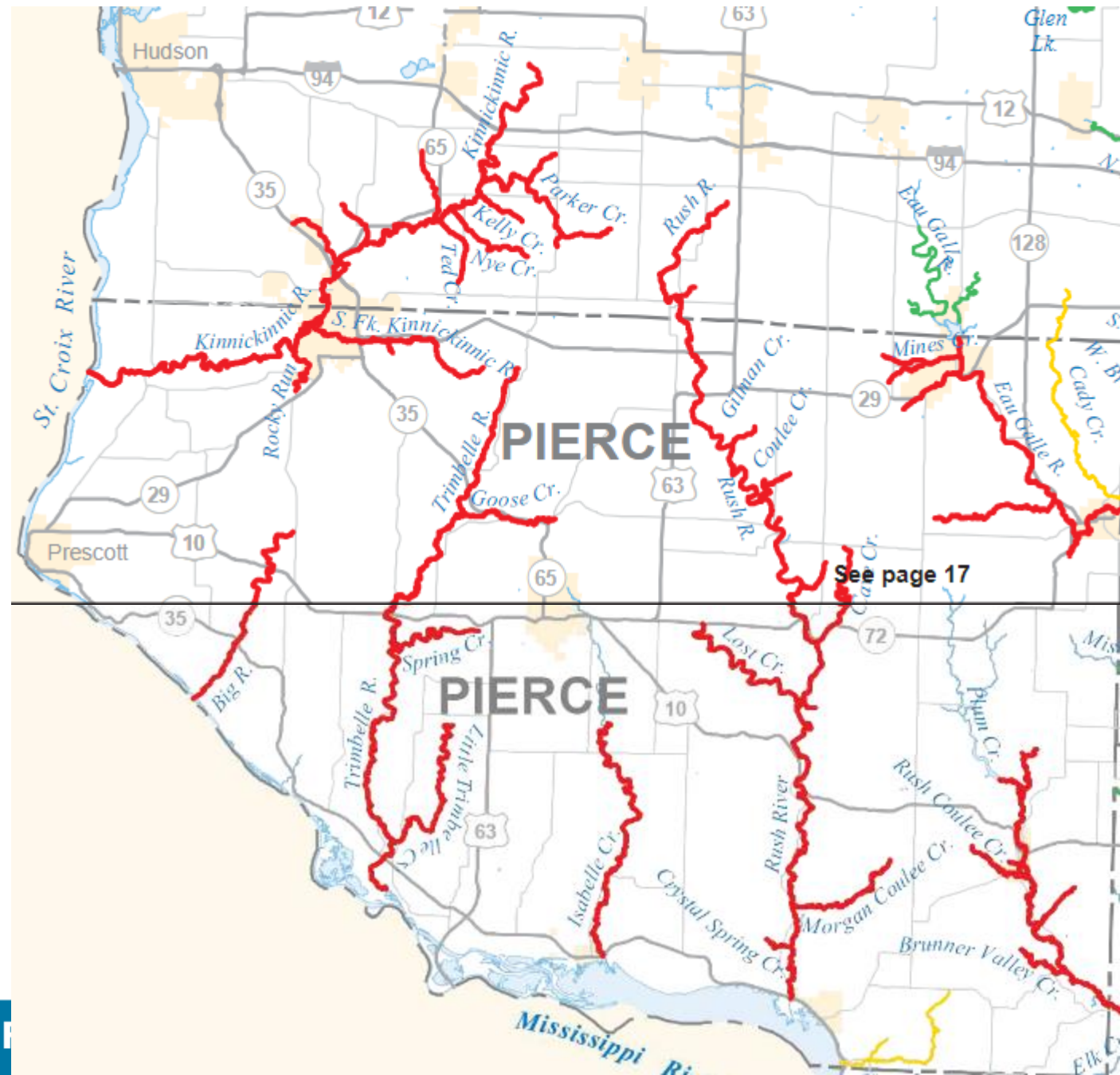


Proposed Regulation

- 5 trout under 12 inches, 1 over 12 inches may be kept
- Promote harvest of small fish
- Protect large fish, still allow for 1 over 12 to be kept-trophy/harvest
- Promote quality and trophy potential
- Other options considered in the toolbox
 - 10 bag, no minimum
 - 5 bag, no minimum
 - No protection of large fish

Streams Included:

- Pierce County:
 - Rush River
 - Plum Creek
 - Eau Galle River
 - Big River
 - Isabelle Creek
 - Lost Creek
 - Cave Creek
 - Kinnickinnic River
- St. Croix County:
 - Kinnickinnic River and tributaries
- Not including Cady or Pine Creeks or upper Eau Galle





Questions and Comments??

CONNECT WITH US

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OFF THE RECORD"