

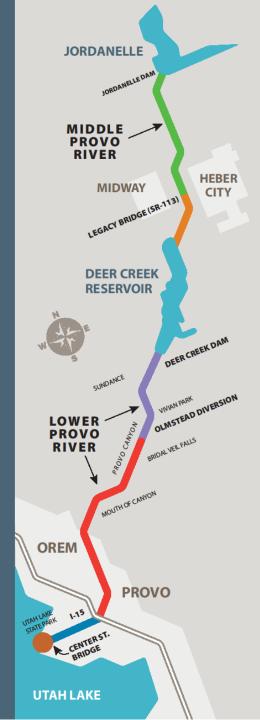
## MIDDLE PROVO RIVER



## **OBJECTIVE**

- Address questions and public comments from 2018 Wildlife Board meeting
  - Concerns and perception of a "stunted/unhealthy" trout population in the MPR
    - Present results from 2019 MPR fish population surveys
  - Survey the angling public about their MPR fishing experience
    - Present results from 2019 MPR creel survey

## MIDDLE & LOWER PROVO RIVERS



#### **Middle Provo River**

Jordanelle Dam to Legacy Bridge on Midway Ln. (SR-113):
• Limit 2 trout under 15 inches • Artificial flies, lures only

Legacy Bridge on Midway Ln. (WR-113) to Deer Creek Res.:

 General fishing rules apply (Bait allowed, general fish limits, no fish size restrictions, etc.)

#### **Lower Provo River**

Deer Creek Dam to Olmstead Diversion:

Limit 2 trout under 15 inches
 Artificial flies, lures only

Olmstead Diversion to Center St. Bridge (Utah Lake State Park):

• General fishing rules apply (Bait allowed, general fish limits, no fish size restrictions, etc.)

I-15 to Center St. Bridge (Utah Lake State Park):

- Immediately release all suckers
- Closed March 1 through 6 a.m. on first Sat. in May.

#### See current *Utah Fishing Guidebook* for all details.

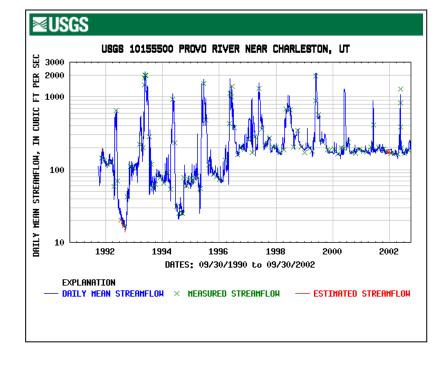
To promote larger fish, we encourage anglers to harvest a limit of trout.



## MIDDLE PROVO RIVER

Pre-1997
Low flows limited food production and habitat severely restricted





Post-1997
Minimum flows (125 cfs) improved food production and habitat



- 1. Decreased Mortality
- 2. Increased Recruitment
- 3. Increased Productivity and Competition

## POPULATION MONITORING: OCT 2019

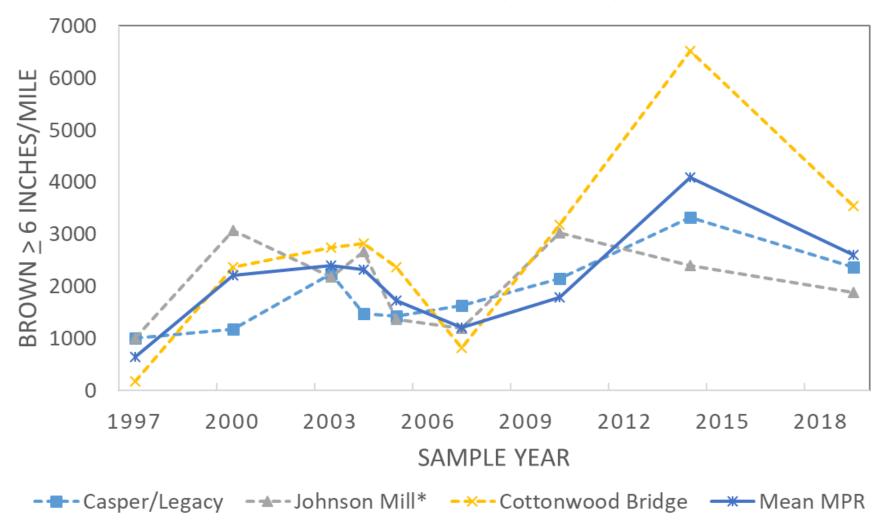


- Sampling Sites
- Jim O'Neal & Fly Fish Food YouTube videos posted Oct 29, 2019



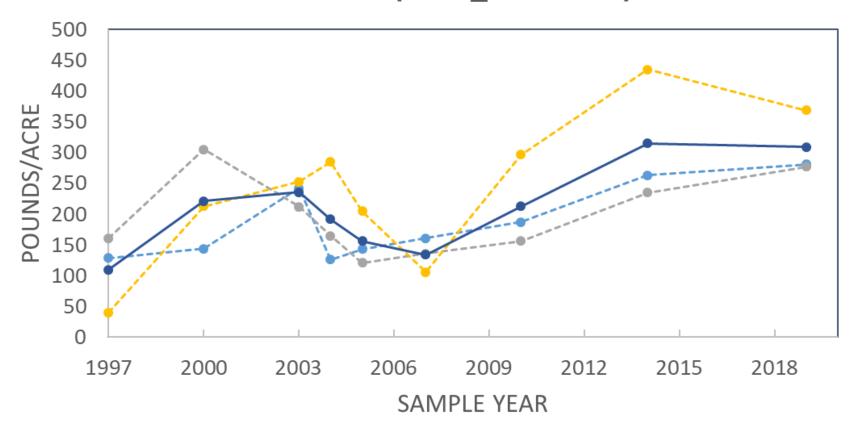
#### BROWN TROUT POPULATION ESTIMATES

## MPR BROWN TROUT POPULATION SUMMARY 1997-2019



#### BROWN TROUT BIOMASS ESTIMATES

## MPR BROWN TROUT BIOMASS SUMMARY 1997-2019 (BRN > 6 INCHES)



- ~1,800lbs/mile on Middle Provo
- Wyoming Blue Ribbon classification = 600lbs/mile

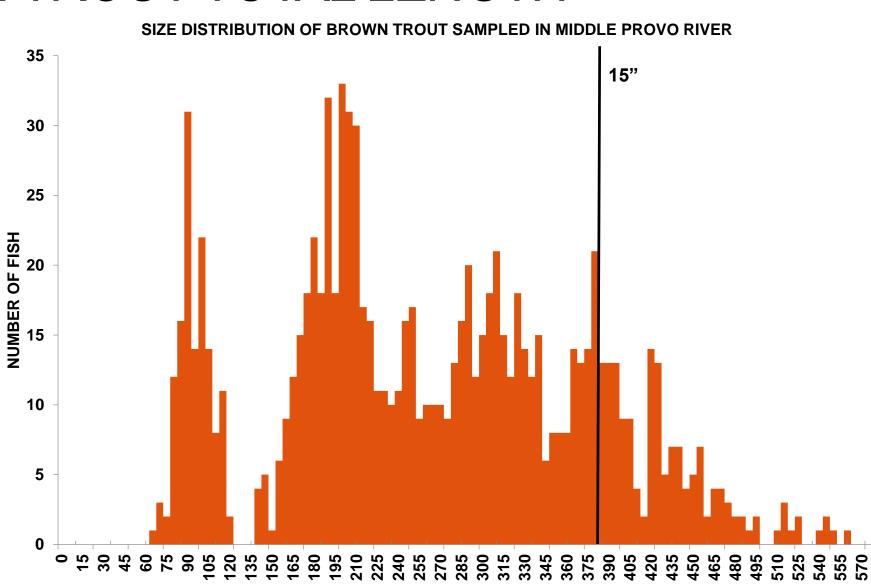
#### **BROWN TROUT TOTAL LENGTH**

## MPR BROWN TROUT LENGTH SUMMARY 1997-2019 (BRN > 6 INCHES)



----Casper/Legacy ----Johnson Mill\* ----Cottonwood Bridge ---- Mean MPR

## **BROWN TROUT TOTAL LENGTH**



**TOTAL LENGTH (mm)** 

## PROPORTIONAL SIZE DISTRIBUTION (PSD)

```
PSD-X = Number of fish ≥ specified length

* 100

Number of fish ≥ minimum stock length
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- X indicates length categories (species specific)
  - Based on percentages of World Record Catch
    - S= Stock ("catchable")
    - Q= Quality
    - P= Preferred
    - M= Memorable
    - T= Trophy
- Proportional size distributions are percentages of fish a certain size or larger
  - Example: PSD-Q = 60 means 60% of the fish are quality size or larger

## **BROWN TROUT PSD**



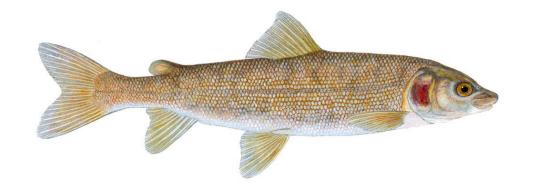
	PSD-Q	PSD-P	PSD-M	PSD-T
	Quality	Preferred	Memorable	Trophy
	≥230mm	≥300mm	≥380mm	≥460mm
Sample Year	≥9 in	≥12 in	≥15 in	≥18 in
2014	65	35	9	1
2019	65	44	20	3

PSD-X equals percent of catchable sized fish over a certain size (i.e. percent of 150mm Brown trout over a certain size)

- Idaho define Trophy waters as PSD-M ≥ 5 and PSD-T ≥ 2
- Generally PSD-Q ≥ 60 indicates a population in balance with prey source or "healthy" population

## MOUNTAIN WHITEFISH PSD

	PSD-Q	PSD-P	PSD-M	PSD-T
	Quality	Preferred	Memorable	Trophy
	≥185mm	≥241mm	≥297mm	≥372mm
Sample Year	≥7.3in	≥9.5 in	≥11.7 in	≥14.6 in
2014	37	36	35	19
2019	77	77	74	34



## TROPHY SPORTFISH

- Brown Trout ≥18" and Mountain Whitefish ≥14.6"
- Legacy Bridge Site
  - 22 trophy fish/reach or ~186 trophy fish/mile
- 2400 N. Site
  - 36 trophy fish/reach or ~317 trophy fish/mile
- Cottonwood Bridge Site
  - 27 trophy fish/reach or ~204 trophy fish/mile





#### **CONDITION: RELATIVE WEIGHT**

- Species specific standard weight equations
- Values well below 100 = issues with food or forage
- Values well above 100 = surplus prey items
- W<sub>r</sub> value (90-100) indicates a "healthy" condition and implies balance between predator/prey for an individual or population
- $W_r \le 85$  implies limited forage or other limitations to growth



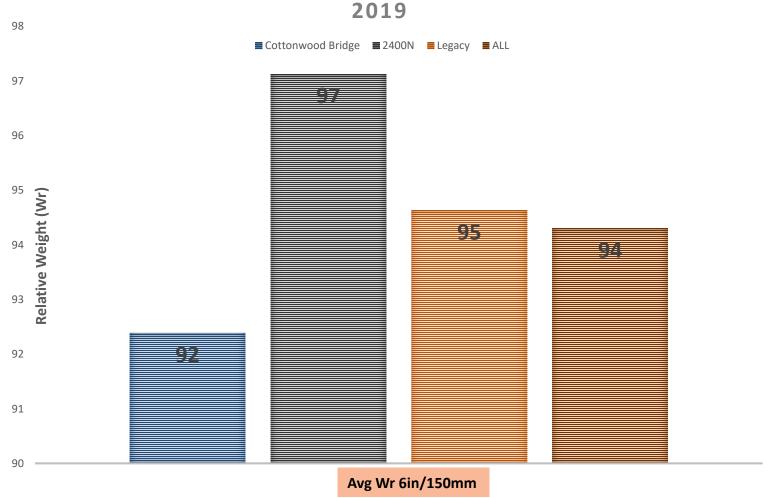
Low Relative Weight Under 85 "skinny, snakey"

High Relative Weight +102 "fatty, footballs"



## CONDITION: RELATIVE WEIGHT



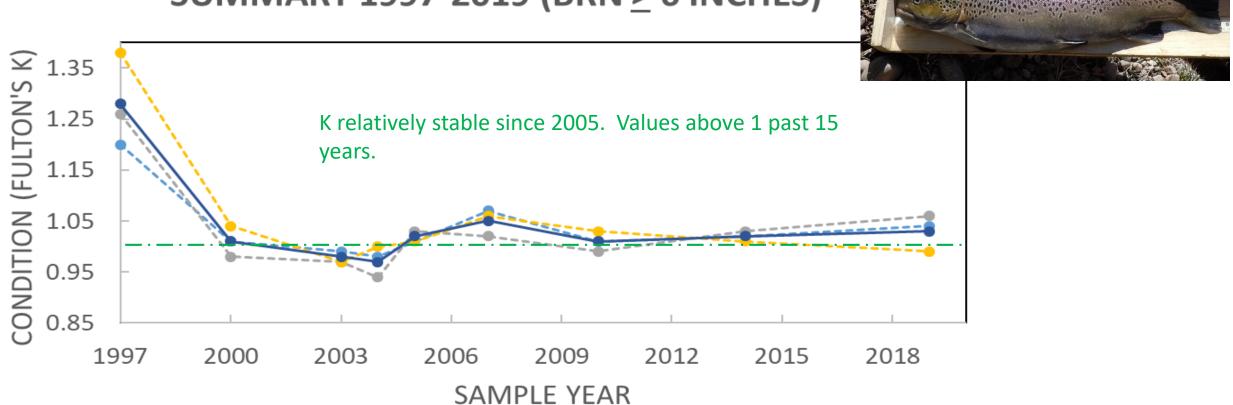


All values above 90 – healthy Brown Trout population

## CONDITION: FULTON'S KTL



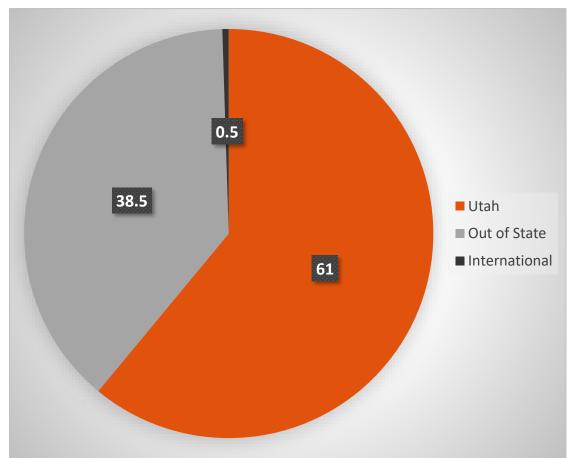
MPR BROWN TROUT CONDITION (KTL) SUMMARY 1997-2019 (BRN > 6 INCHES)



## **OBJECTIVES**

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## ANGLER DEMOGRAPHICS: RESIDENCY

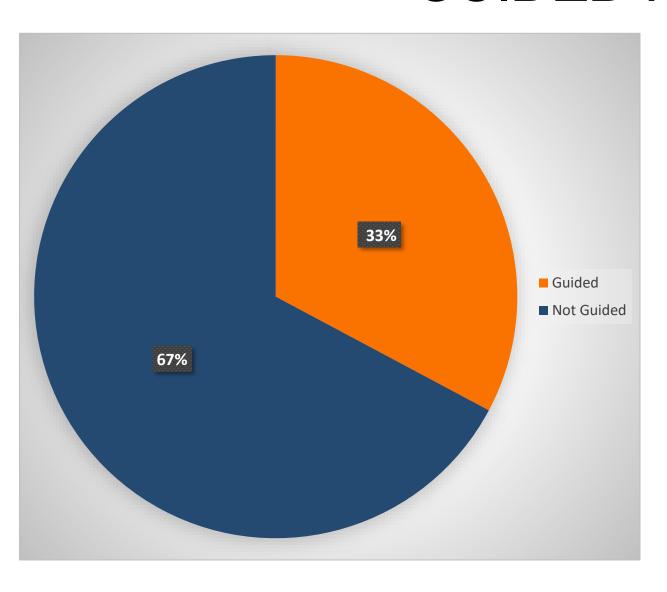


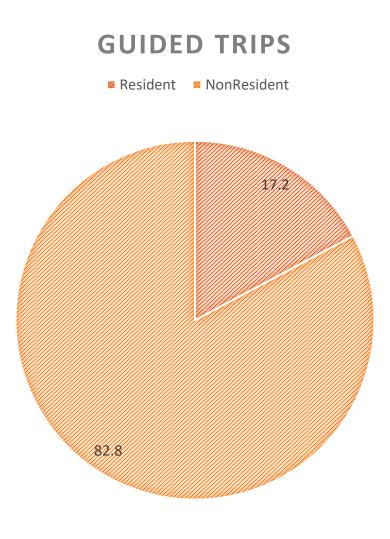
Nationally 21.5% of anglers are fishing from out of state

\*\*Values for national comparison were taken from the USFWS 2016 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation

- 45 states (in addition to UT) & 5 countries were represented
  - CA was the most represented state
  - Hawaii, Iowa, Nebraska, Rhode Island, and South Dakota were not represented
  - International Countries included: Canada, Australia, England, Japan, and Spain

## GUIDED FISHING





# Q2. HOW SATISFIED ARE YOU WITH YOUR TYPICAL FISHING EXPERIENCE HERE ON THE MPR? (I.E., THE NUMBER, SIZE, SPECIES, ACCESS) Answered: 2,476 Skipped: 76

Choice	# of Responses	% of Responses
Very Satisfied	520	21
Satisfied	940	38
Neither	201	8
Dissatisfied	15	0.6
Very Dissatisfied	2	0.08
No Opinion	798	32

# Q3. WHAT CAN UDWR DO TO INCREASE YOUR LEVEL OF SATISFACTION WHILE FISHING HERE ON THE MPR?

No development

Comment	#	%
Reduce crowding	74	18.5
No changes/Happy/Satisfied	55	13.8
Bigger fish	53	13.3
Access maintenance or improvement	41	10.3
Less fishing guides	24	6
Increase access	22	5.5
Remove trash	19	4.8
Regulate fishing guides	14	3.5
Bait above Legacy Bridge	12	3
Angler education (conservation, ethics, etiquette, flow data)	12	3
More harvest/Increase harvest	10	2.5
Increased LE	9	2.3
Too many fish	7	1.8
Road maintenance	6	1.5
More fish	4	1
Increased access for handicap/elderly	3	0.8

399 anglers commented, 15.6% of individual, interviewed anglers

2

No development	_
Require barbless hooks	2
Higher catch rates	2
Keep flows lowered	2
Remove/reduce size restriction above Legacy Bridge	2
Make it all general regs	2
Stock 16" RBT	2
Raise flows	2
One day license	2
Alternate guide days	1
Map at all access points	1
DNR needs to kill fish	1
Help local anglers	1
Manage flows for hatch	1
More catch & release	1
Remove beavers	1
Free fishing licenses for veterans	1
Improve tributaries	1
More Mountain Whitefish	1
River was better before restoration	1
More fishing holes	1
Season on the river	1
Stock BCT	1
Regulate flows	1
Stop landowners from cutting trees near the river	1

# Q4. HOW SATISFIED ARE YOU WITH THE CURRENT FISHING REGULATIONS ON THE MPR?

• Answered: 2,469 Skipped: 83

Choice	# of Responses	% of Responses	
Very Satisfied	330	13	
Satisfied	769	31	
Neither	463	19	
Dissatisfied	17	0.7	
Very Dissatisfied	2	0.08	
No Opinion	888	36	

# Q4B. WHAT COULD UDWR DO WITH FISHING REGULATIONS ON MPR TO INCREASE YOUR LEVEL OF SATISFACTION?

• 177 anglers (7%) commented – 156 comments were related to regulations

Comments	#	%
No changes	69	44.2
Increase the limit or Limit 4 fish entire MPR	33	21.2
Don't know (or care) about regulations	12	7.7
Allow harvest of larger fish	11	7.1
Artificial only on entire MPR	9	5.8
Allow bait on entire MPR	8	4.5
Barbless hooks	5	3.2
Catch & Release only	5	3.2
Regulate guides	2	1.3
More LE	2	1.3
More regulations on the river	1	0.6

#### CONCLUSIONS

- Brown Trout population is 2,000-3,500 individuals >6"/mile or 1,800lbs/mile
- Condition, based on Wr and Fulton's K, indicate a healthy population
- Trophy populations of Brown Trout and Mountain Whitefish observed
  - Currently the Middle Provo is designated as a Blue Ribbon Fishery
  - Would be considered a Trophy and Blue Ribbon Fishery based on Idaho (PSD-M = 5, PSD-T =2) and Wyoming (>600lbs/mile) standards, respectively

## CONCLUSIONS

- < 1% of interviewed anglers are dissatisfied with MPR fishing
- <1% were dissatisfied with MPR fishing regulations</p>
- Most common comments recorded were regarding overcrowding on the river followed by "no changes"
- Overall, there is a healthy sportfish population including trophy opportunities and anglers are satisfied with Middle Provo River fishing opportunities

# THANK YOU



