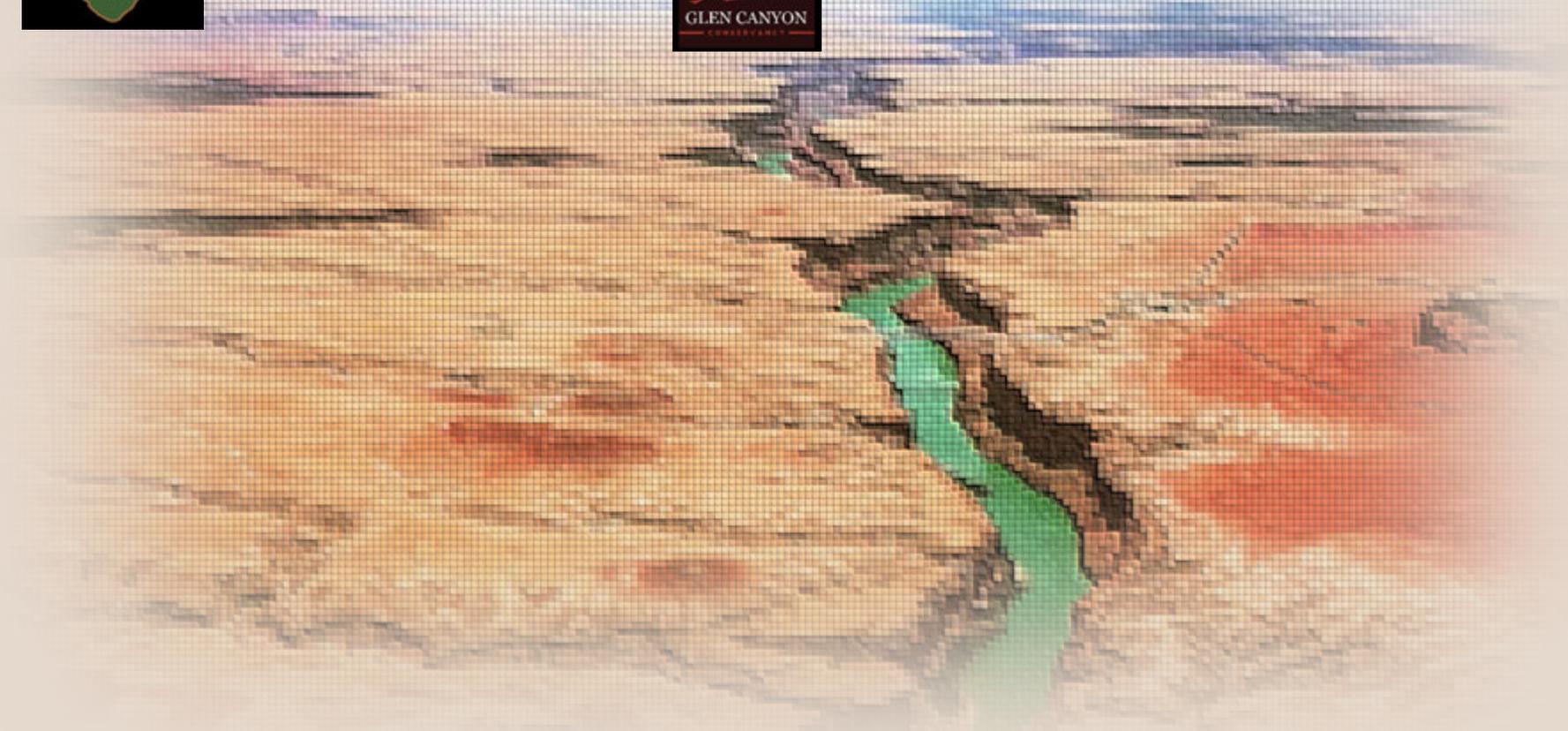


# Brown Trout Incentivized Harvest Program Glen Canyon National Recreation Area



# Background

There are increasing threats to native fish populations in the Colorado River downstream of Lees Ferry.

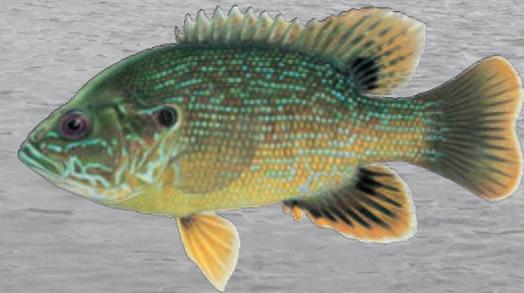
## Brown Trout

Can successfully spawn below dam and numbers have been increasing since 2014



## Green Sunfish

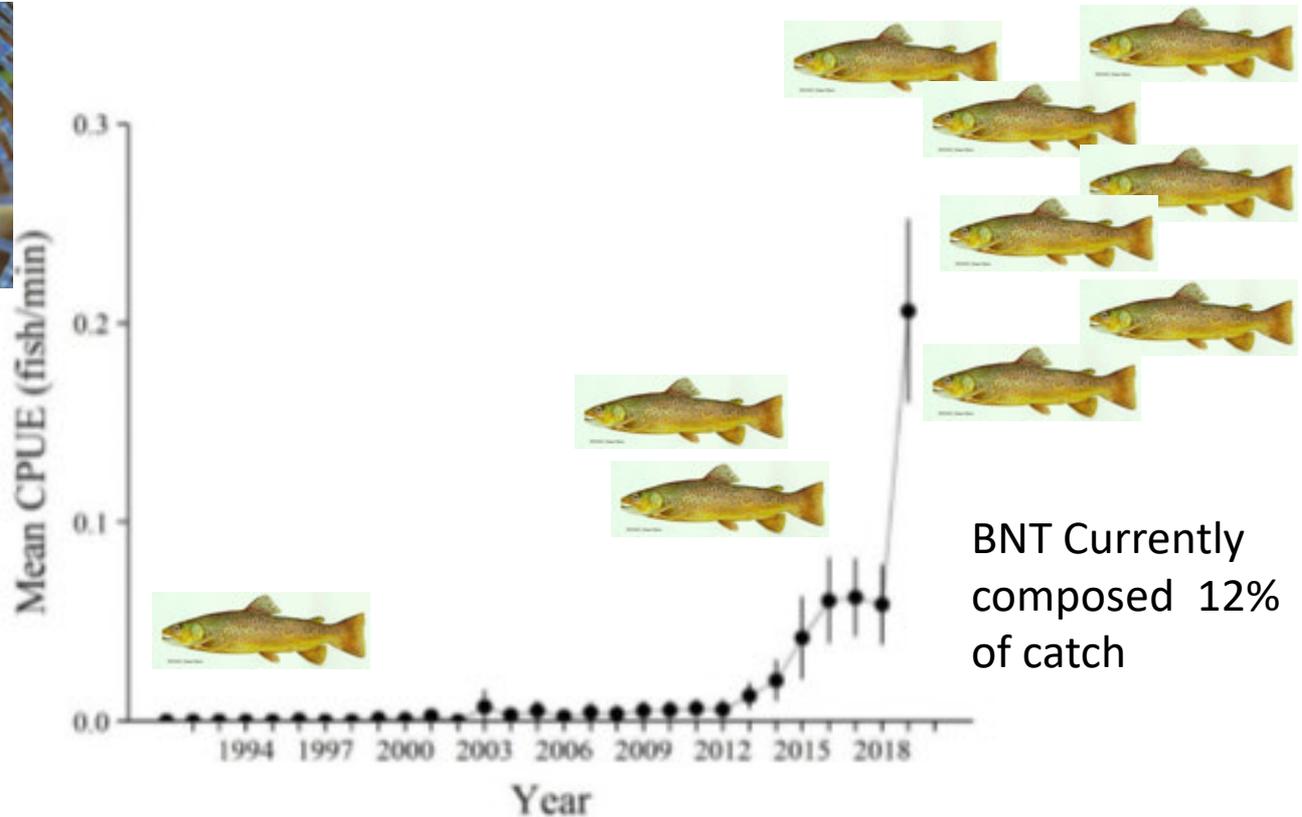
Successfully spawning in a small backwater area below Glen Canyon Dam. First discovered in 2015 but possibly there since the 1990's.



# Brown Trout Population is Growing



BNT historically composed 2% of catch



BNT Currently composed 12% of catch

**Figure 10. Annual Brown Trout CPUE (95% confidence intervals) from AGFD standardized monitoring (electrofishing) at Lees Ferry, Colorado River by year from 1991-2019.**

# Why Incentivized Harvest?

A tool within the EA that utilizes a tiered management approach to control non-native fish and other aquatic organisms to protect native fish in Grand Canyon and the recreational rainbow trout fishery from the dam to the Paria River.

1. Incentivized Harvest (first tier)
  - most socially acceptable
  - least intrusive
2. Mechanical disruption of early life stages (2<sup>nd</sup> tier)
3. Mechanical Removal (3<sup>rd</sup> tier)

## ENVIRONMENTAL ASSESSMENT

EXPANDED NON-NATIVE AQUATIC SPECIES MANAGEMENT  
PLAN IN GLEN CANYON NATIONAL RECREATION AREA AND  
GRAND CANYON NATIONAL PARK BELOW GLEN CANYON DAM

National Park Service

Intermountain Region  
Glen Canyon National Recreation Area  
Grand Canyon National Park

September 2018

# NPS Legal Mandates

**Grand Canyon** has a legal responsibility to protect native fish/wildlife

- Biggest concern is a threat to the downstream population of the endangered humpback chub.
- Brown trout are 17X's more likely to prey on other fish species than rainbow trout.
- Brown trout can tolerate warmer downstream water temperatures.
- Brown trout can tolerate higher turbidities

**Glen Canyon** manages with AGFD for a recreational rainbow trout fishery below Glen Canyon Dam.

- Unique opportunity to research if anglers can assist in managing a high threat fish species.



*Humpback Chub – Status Endangered  
Illustration by Joe Tomelleri*

# Incentivized Harvest Components

- Reward for each harvested brown trout > 6 inches
- - Begin with \$25.00 with increased rewards during
- summer months when fish may be harder to catch
- Sponsored fishing tournaments (delayed)
- Tribal youth sponsored fishing trips (delayed)

# Program Duration and Goal

- Fully funded in 2021 with partial funding procured for the following 3 years
- Not intended to eliminate the brown trout population
- Reduce the brown trout population to 2013 levels (2% of catch)
- Through the incentivized harvest program, if brown trout population can be reduced, it should eliminate the need for more intensive fish management tools.

# Fish Collection Information

Picture of new data card

name \_\_\_\_\_ phone number \_\_\_\_\_

address/PO box \_\_\_\_\_

city, state, zip code \_\_\_\_\_

Can we contact you for future research? **y / n**

Please describe each brown trout caught:

Bag #	Fork length (inches)	River Reach (map on back)	Tackle
1	_____	_____	Fly <input type="checkbox"/> Lure <input type="checkbox"/>
2	_____	_____	Fly <input type="checkbox"/> Lure <input type="checkbox"/>
3	_____	_____	Fly <input type="checkbox"/> Lure <input type="checkbox"/>
4	_____	_____	Fly <input type="checkbox"/> Lure <input type="checkbox"/>

(please use another card for additional brown trout)

Fork lengths based on (circle one)? **guess/ tape/ fishboard**

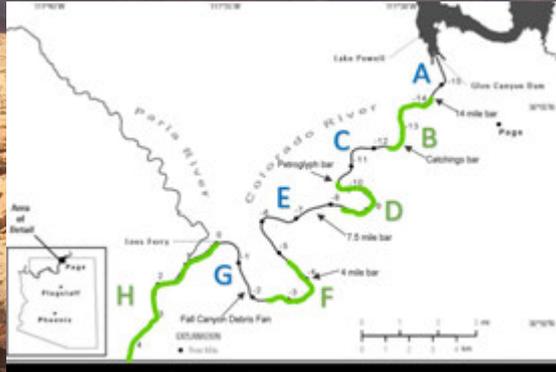
Date: \_\_\_\_\_ Hours fished: \_\_\_\_\_

Did you hire a guide? **y / n**

age: \_\_\_\_\_ gender: **m / f**

annual gross household income

<input type="checkbox"/> Less than \$50,000	<input type="checkbox"/> \$150,000 - \$199,999
<input type="checkbox"/> \$50,000 - \$99,999	<input type="checkbox"/> \$200,000 - \$250,000
<input type="checkbox"/> \$100,000 - \$149,999	<input type="checkbox"/> Greater than \$250,000



Visitor Center



Fish Cleaning Station



# The Rules for the Incentivized Harvest

- Brown trout must be harvested legally between the dam and the Paria River Riffle.
- Anglers register by turning in brown trout heads and entrails along with the data card.
- Only heads from brown trout 6 inches or greater will be counted. NPS has determined head size for 6-inch fish.
- Plastic bags for heads, entrails, and data cards are provided at the Lees Ferry boat ramp, fish cleaning station, and Navajo Bridge Visitor Center. Use only pencil for data cards.
- Harvested fish heads, entrails and data cards can be deposited in the freezer at the collection station located at the Navajo Bridge Visitor Information Center.
- Employees from NPS are not eligible to participate in the program
- All brown trout heads/entrails will be tallied at the end of each month. Checks will be mailed to the address presented on the data card. Checks will be distributed by Glen Canyon Conservancy.

# Other Funding?

## FISHING REGULATIONS Glen Canyon Dam to Paria Riffle

Artificial Lures and Fly Only

Barbless Hooks Only

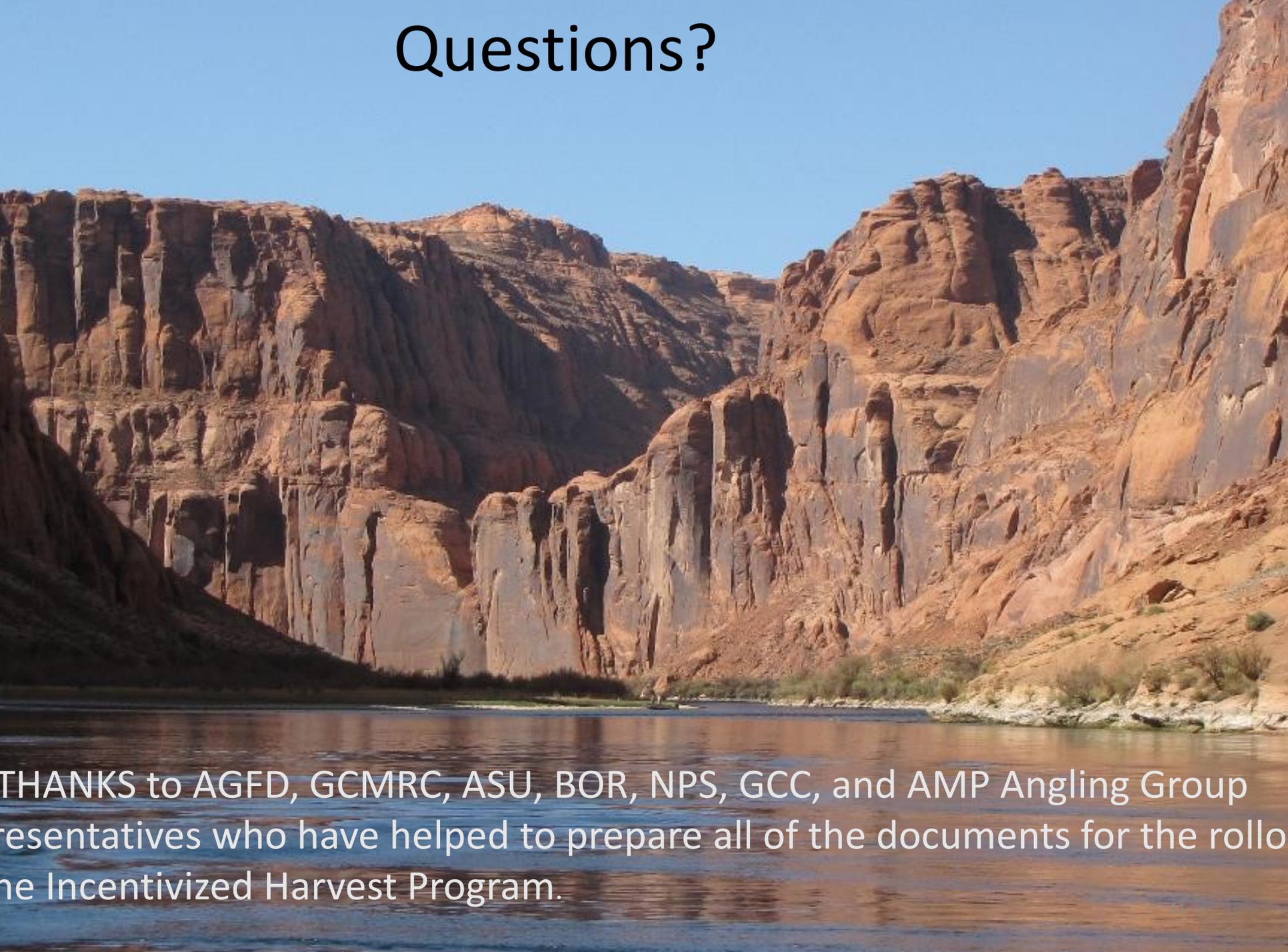
Limit : TWO Rainbow Trout Daily Bag Limit

No Limit : Bass, Sunfish, Catfish, Walleye,  
Trout (other than Rainbow)

Fishing License Required



# Questions?



THANKS to AGFD, GCMRC, ASU, BOR, NPS, GCC, and AMP Angling Group representatives who have helped to prepare all of the documents for the rollover of the Incentivized Harvest Program.