

**Glen Canyon Dam Adaptive Management Work Group**  
**Agenda Item Information**  
**September 9-10, 2008**

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Agenda Item

Stakeholders' Perspectives and Interest in the AMP: Federation of Fly Fishers/Northern Arizona Flycasters

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Action Requested

√ Information item only. We will answer questions but no action is requested.

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Presenter

Mark Steffen, Federation of Fly Fishers/Northern Arizona Flycasters

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Previous Action Taken

N/A

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Relevant Science

N/A

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Background Information

At the Secretary's Designee request, this item will appear on every AMWG meeting agenda to give AMWG members an opportunity to inform the full AMWG about the people they represent and their connections to the Colorado River.

Mark Steffen will give a power point presentation about FFF/NAF representation of recreational angling interests and a brief history of participation in the adaptive management program.

# Federation of Fly Fishers

All Fish

Conserving

All Waters

Restoring

Educating



# What is the Federation of Fly Fishers?

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- International federation of clubs, councils & individual anglers
  - *13 regional Councils, over 300 charter & affiliate clubs - 40,000 members world wide*
  - *AZ affiliate clubs: N AZ Flycasters, AZ Flycasters, Desert Flycasters, White Mountain Fly Fishers, San Pedro Flycasters*
- 501(c)(3) non-profit organization with HQ based in Livingston, MT

# History

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- The original concept was to create a national federation of fly fishing clubs. There were 12 founding clubs.
- First Conclave held June 1965 in Eugene, Oregon hosted by McKenzie Flyfishers
- Second Conclave in September 1966, FFF had grown to 29 clubs



# History

(Continued)

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- Regional Councils were created to govern a largely volunteer organization
- After much debate, the FFF became a staff led organization in 2004
- Board of Directors, Executive Committee and small HQ staff of 7

# What do we do?

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- **Conserve & restore** all fish in all waters
- **Teach** fly fishing, fly tying and angling ethics to all ages.
- Provide a standard of excellence for **Casting Instructors**
- Created & manage the **Certified Casting Program**
- Provide info on fly fishing guides through our **Guides Association**



# Communication

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- Publish a quarterly four color magazine – **FLYFISHER**
- Publish **The Osprey**
- Web site: [www.fedflyfishers.org](http://www.fedflyfishers.org)
- Club Wire
- The New Fly Fisher TV Program
- Conclave



# Conservation

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- **Trout of Desert Southwest Initiative**
  - *Gila Trout Restoration*
  - *Apache Trout Restoration*
- **Anglers Against Weeds**
- **Aquatic Invasive Species Program**
- **Adopt-a-Stream Program**
- **Fossil Creek Roundtail Chub Restoration**
- **Mangrove Recovery Initiative**



# Gila Trout Restoration Bureau of Reclamation \$10,000 FFF Grant



# Gila Trout Restoration US Forest Service \$7,000 FFF Grant



# Other Projects

## Casting for Recovery

### \$1,000 NAF Grant



# **Fossil Creek Roundtail Chub Restoration**



# Fly Fishing Discovery Center

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- Interpretive Center for the Sport of Fly Fishing
- Exhibits
- Classroom



# Conclave – National

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- Annual Event Open to All
- “Fly Fishing University”
  - *Workshops and classes for beginner to advanced*
- Social Activities
  - *Auctions, Dinners, Awards*
- Trade Show
  - *All the latest fly fishing gear*
  - *Fly Tying Demos*



# FFF / NAF GCDAMP Participation

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- Attended 48 meetings in Phoenix, 3 in Page since Jan 2003
- 102 days of meetings
- AMWG, TWG and Ad-hoc groups



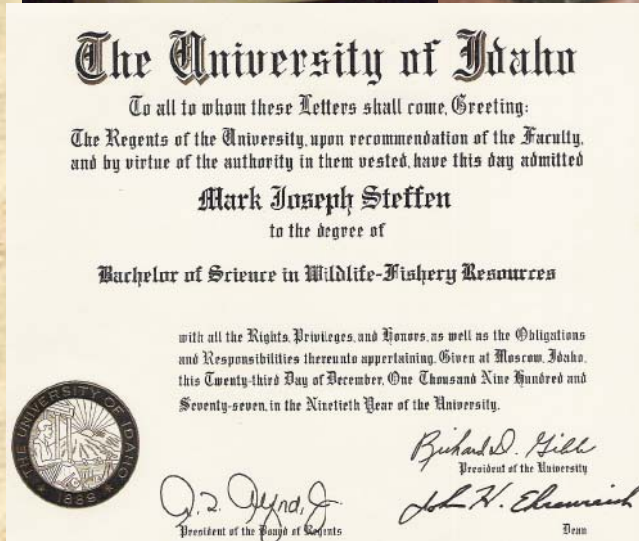
# Selection of AMWG Member

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# Why Mark?



# FFF / NAF Goals & Objectives

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## 1) Strongly support MLFF

- *Current ecosystem is adapted to daily flow fluctuations*

## 2) Strongly oppose steady flows

- *Disruptive to established tidal aquatic ecosystem*

## 3) Support incremental experimentation to relax ROD restrictions



# MLFF & Daily Flow Fluctuation Benefits

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**“Fluctuating flows increase the availability of food, increasing the dislodgement and movement of algae and invertebrates. Invertebrates in trout stomachs increased during periods of fluctuating flow. Anglers favor fluctuating flows because they believe rising water stimulates feeding by fish. Trout growth rates could decline due to an absence of fluctuating flows.”**  
*(GCES final report introduction January 1988)*

**“Cessation of fluctuating flows would likely reduce drifting simmulids, gammarus and chironomids, important food sources for HBC. Cladophora drift was significantly higher during upramp and downramp than during steady flows. Gammarus composed the bulk of HBC diet by volume, although simmulids were the most common by number.”**  
*(Valdez 1995)*

# FFF / NAF Goals & Objectives

(continued)

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4) Prevent negative consequences from experimental flows

5) Learn from negative consequences of past experimental flows

- **1990 – 1991 EIS flows**

- ✓ *correlates with HBC population decline*
- ✓ *starvation and major loss of trout throughout Grand Canyon*

- **Summer 2000 steady flows**

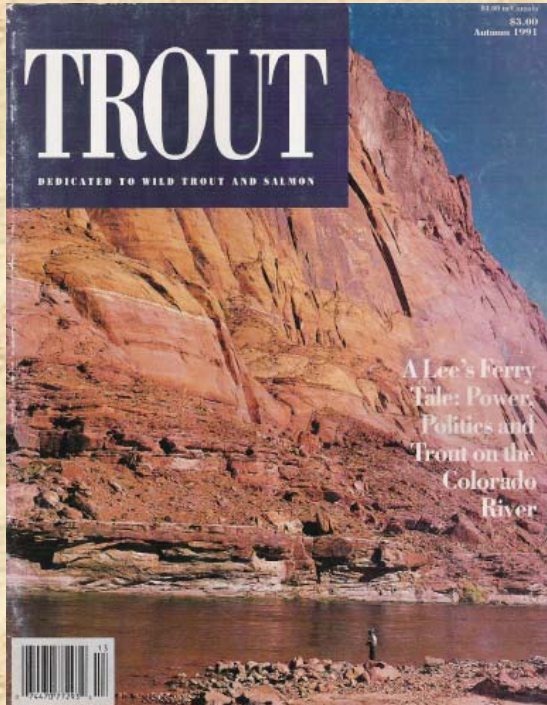
- ✓ *New Zealand Mud Snail & Tamarisk establishment*

- **November 2004 BHBF**

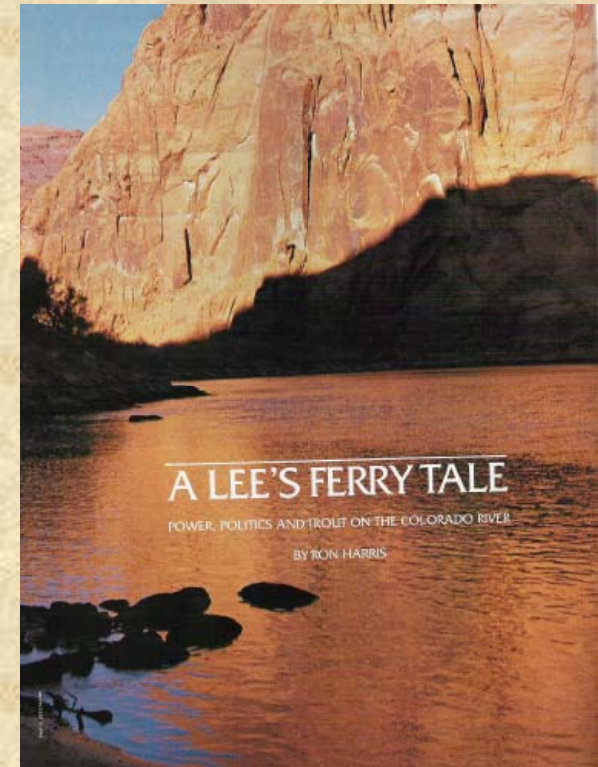
- ✓ *aquatic food base destruction*

# 1990-1991 EIS Experimental Flows

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“These included three day flows of 5000 cfs – quite different from the pulsing variations the trout were used to ... By autumn, anglers were catching trout which were cigar shaped and emaciated, starving in an altered habitat ... ”



“While there is no doubt the food chain is severely affected by the study flows, they are scheduled to continue until the study ends.”

# 1990-1991 EIS Experimental Flows 1994 Fish & Wildlife Service BO

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FINAL  
BIOLOGICAL OPINION  
OPERATION OF GLEN CANYON DAM  
AS THE MODIFIED LOW FLUCTUATING FLOW ALTERNATIVE  
OF THE FINAL ENVIRONMENTAL IMPACT STATEMENT  
OPERATION OF GLEN CANYON DAM  
2-21-93-F-167  
December 21, 1994  
Prepared by  
Ecological Services  
Arizona State Office  
U.S. Fish and Wildlife Service  
Phoenix, Arizona

“... the Lees Ferry trout fishery declined somewhat during or shortly after the experimental flow period, and declines in relative condition of humpback chub also were observed ...”

# FFF / NAF Goals & Objectives

(continued)

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## 6) Recommend GCDAMP Strategic Plan Goal #4 be changed to:

*Maintain a wild reproducing population of rainbow trout above the Paria*

*and downstream of the Paria*

*to the extent practicable and consistent with the maintenance of viable populations of native fish.*

# FFF / NAF Goals & Objectives

(continued)

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## 7) Stocking of trout at Lees Ferry whenever AZ Game & Fish considers appropriate

### Drought proves deadly to trout

The world-class Lees Ferry fishery may be restocked with hatchery fish after a partial die-off that was caused by warmer, deoxygenated water from Lake Powell.

By **SABRINA KREIZENBECK**  
Special to the Daily Sun

### Activists fight trout stocking at Lees Ferry

They argue Grand Canyon's endangered humpback chub would suffer, but studies have shown the native fish's populations are on the rebound.

By **CYNDY COLE**  
Sun Staff Reporter

Although rainbow trout are down by at least half at Lees Ferry, two environmental groups are planning to sue Arizona Game and Fish to prevent proposed stocking at the world-renowned fishery.

Utah's Living Rivers and the Center for Biological Diversity of Tucson have given notice they will sue on behalf of declining populations of native humpback chub and three other endangered fish under the Endangered Species Act if Game and Fish adds more rainbow trout, believed to prey on na-

tive fish downstream.

Game and Fish wants to stock tagged, mostly sterile trout for catching at Lees Ferry and to track them to see whether they make it 60 miles downriver to prey on chub and other native fish. Rainbow trout populations are about 50,000 less than normal.

Experimenting with a population of 4,500 or 5,000 chub by adding predators is too dangerous and shouldn't be considered before studies are conducted in public, Center for Biological Diversity's Robin Silver said.

Three of eight fish species native to the river have already

See **TROUT**, A11



# FFF / NAF Goals & Objectives

(continued)

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## 8) Desire balanced and limited killing of non-native fish in government projects

Dear Mr. Jorden,

The Bright Angel Creek Trout Reduction Project has been terminated due to funding and realignment of resource management priorities. If the project is ever resumed there will be an opportunity for public comment.

Sincerely,

R.V. Ward, Wildlife Biologist  
Wildlife Program Manager  
Science Center  
Grand Canyon National Park  
P.O. Box 129  
Grand Canyon AZ 86023  
Phone 928-638-7756 Fax 928-638-7755

----- Forwarded by RV Ward/GRCA/NPS on 08/04/2008 08:54 AM -----

# FFF / NAF Goals & Objectives

(continued)

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9) Prevent arbitrary killing of trout in Grand Canyon simply because they are non-native

- *Trout are not an invasive species in the Grand Canyon*
- *NPS, USFWS, AGF stocked trout in the Grand Canyon from 1923 - 1971*

# Trout Stocking in the Grand Canyon

Table 6-18. Summary of fish stocking records between Lee Ferry (RM 688.6) and Separation Rapid (RM 450.6), Coconino and Mohave Counties, Arizona.

Species	Date	Locality	# Stocked	Size	Source
Coho salmon	12/1971	Lee Ferry	20,000	Fingerlings	AZ Game and Fish
Rainbow trout	9/1923	Bright Angel	20,000	Fingerlings	National Park Service
	5/1923	Tapeats Crk.	5,000	Eyed Eggs	"
	9/1924	Bright Angel	6,000	Fingerlings	"
	2/1931	Havasu Crk.	18,000	Eyed eggs	"
	1/1932	Bright Angel	21,000	Eyed eggs	"
	12/1934	"	31,000	Eyed eggs	"
	9/1935	"	21,000	Eyed eggs	"
	5/1939	"	13,800	Fingerlings	"
	6/1940	"	18,000	Fingerlings	"
	6/1940	Tapeats Crk.	2,000	Fingerlings	"
	7/1940	Clear Crk.	18,000	Fry	"
	11/1941	Bright Angel	32,000	Fingerlings	"
	7/1942	"	28,000	Fingerlings	"
	7/1942	Phantom Crk.	14,000	Fingerlings	"
	4/1944	Havasu Crk.	4,500	Fry	"
	6/1947	Bright Angel	10,394	Fingerlings	"
	4/1948	Havasu Crk.	13,000	Fingerlings	"
	3/1950	Bright Angel	45,240	Fingerlings	"
	4/1954	Havasu Crk.	20,000	Fingerlings	"
	7/1958	Bright Angel	45,000	Fingerlings	"
	6/1964	"	23,900	Fingerlings	"
	1964	Lee Ferry	10,200	Adv. Fingerlings	AZ Game and Fish
	1964	"	5,000	Catchable	"
	1965	"	10,000	Fingerlings	"
	1965	"	8,830	Catchable	"
	1966	"	10,000	Fingerlings	"
	1966	"	4,500	Catchable	"
	1967	"	3,100	Catchable	"
	1968	"	5,500	Catchable	"
	1969	"	20,000	Adv. Fingerlings	"
	1969	"	6,545	Catchable	"
	1970	"	20,000	Adv. Fingerlings	"
	1970	Diamond Crk.	6,173	Fingerlings	U.S. Fish and Wildlife
	1971	Lee Ferry	5,110	Catchable	AZ Game and Fish
	1971	Diamond Crk.	11,000	Fingerlings	U.S. Fish and Wildlife
	1972	Lee Ferry	4,585	Catchable	AZ Game and Fish
	1973	"	5,075	Catchable	"
	1974	"	3,990	Fingerlings	"
	1975	"	30,000	Fingerlings	"
	1975	"	4,500	Catchable	"

(continued)

# Trout Stocking in the Grand Canyon

Table 6-18(cont.). Summary of fish stocking records between Lee Ferry (RM 688.6) and Separation Rapid (RM 450,6), Coconino and Mohave Counties, Arizona.

Species	Date	Locality	# Stocked	Size	Source
Rainbow trout (cont.)	1976	Lee Ferry	100,000	Fingerlings	AZ Game and Fish
	1977	"	100,000	Fingerlings	"
	1978	"	50,000	"	"
Brown trout	7/1926	Shinumo Crk.	50,000	Eyed eggs	National Park Service
	8/1930	"	50,000	Eyed eggs	"
	12/1930	Garden Crk.	4,000	Eyed eggs	"
	1/1930	Bright Angel	100,000	Eyed eggs	"
	12/1930	"	45,000	Eyed eggs	"
	12/1934	"	50,000	Eyed eggs	"
Brook trout	8/1920	Bright Angel	5,000	Fingerlings	"
	6/1927	Havasu Crk.	10,000	Fingerlings	"
	12/1928	Clear Crk.	50,000	Eyed eggs	"
	1/1931	"	25,000	Eyed eggs	"
	12/1934	"	18,000	Eyed eggs	"
	1977	Lee Ferry	47,880	Fingerlings	AZ Game and Fish
	1978	"	100,000	Fingerlings	"
	12/1978	Lee Ferry		Fingerlings	"
Cutthroat trout	1979	Lee Ferry	50,000	Catchable	"
Woundfin dace	7/1972	Lee Ferry	650	Fingerlings	"

# FFF / NAF Goals & Objectives

(continued)

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## 10) Protect all fishing opportunities downstream of Glen Canyon Dam

- *Upstream of Lees Ferry*
- *Walking area around Lees Ferry boat docks*
- *Hiking in Grand Canyon*
- *Bright Angel Creek in Grand Canyon*
- *Grand Canyon river rafting trips*

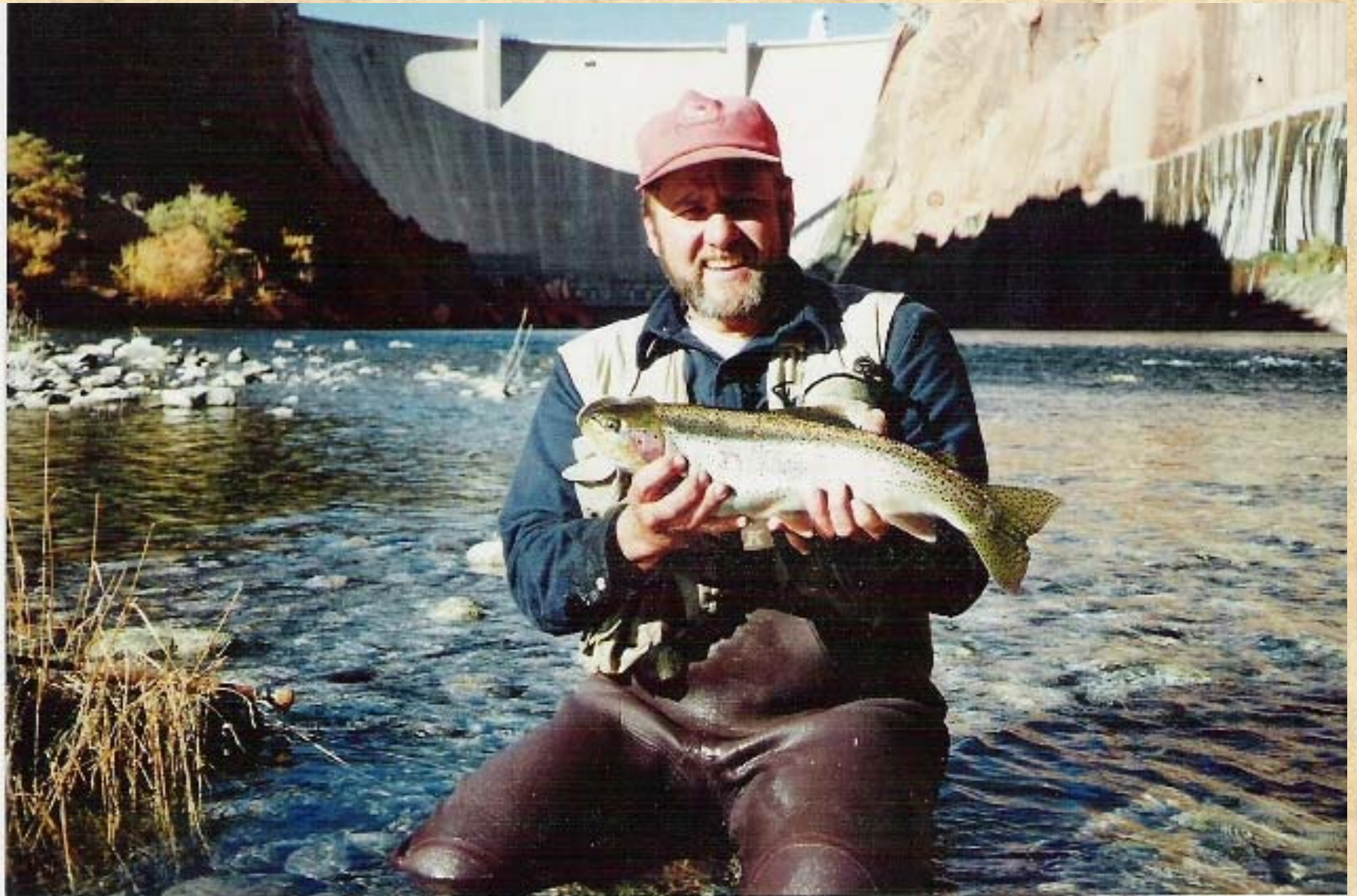
## *Upstream of Lees Ferry*

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## *Upstream of Lees Ferry*

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## *Upstream of Lees Ferry*

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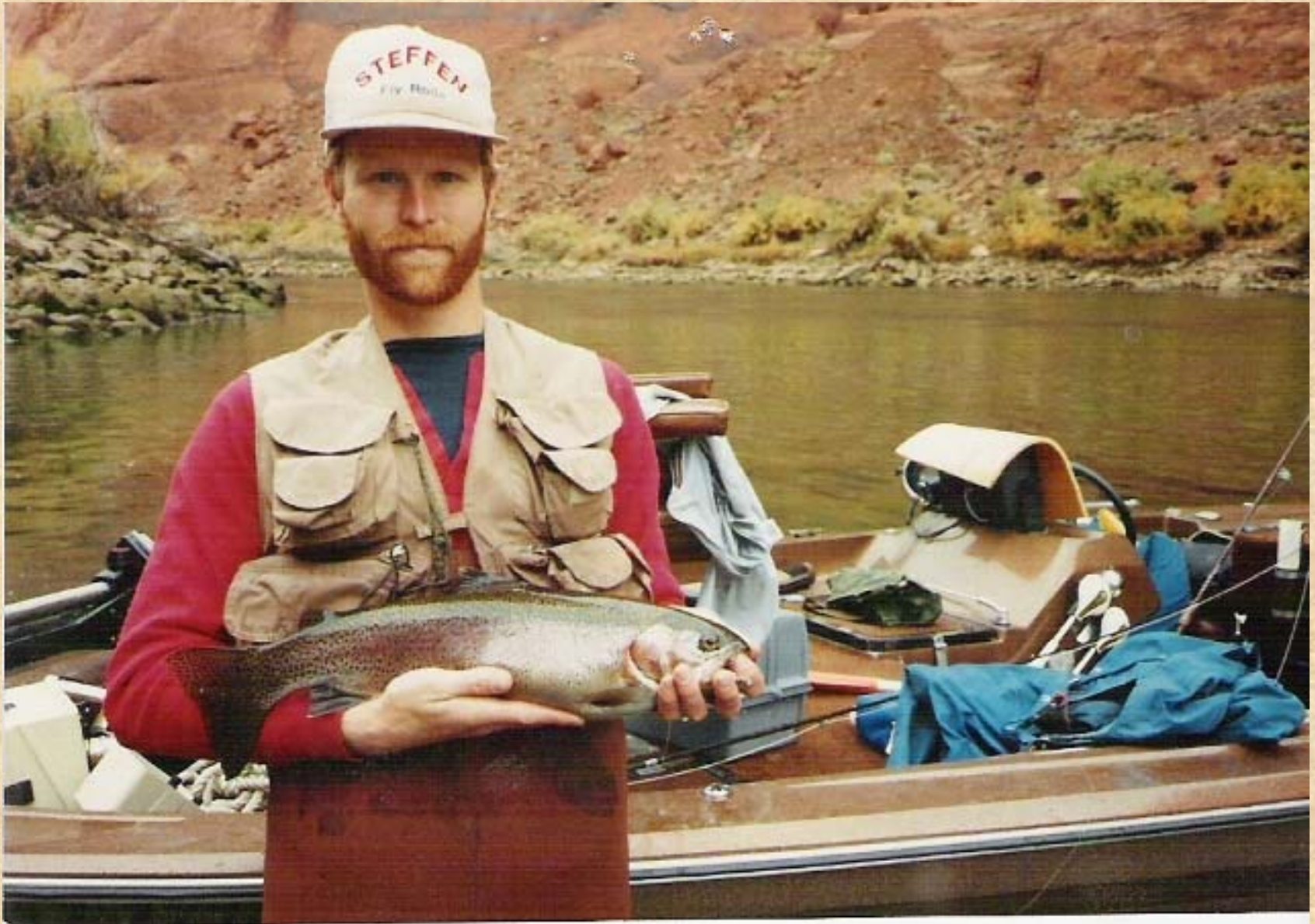
## *Upstream of Lees Ferry*

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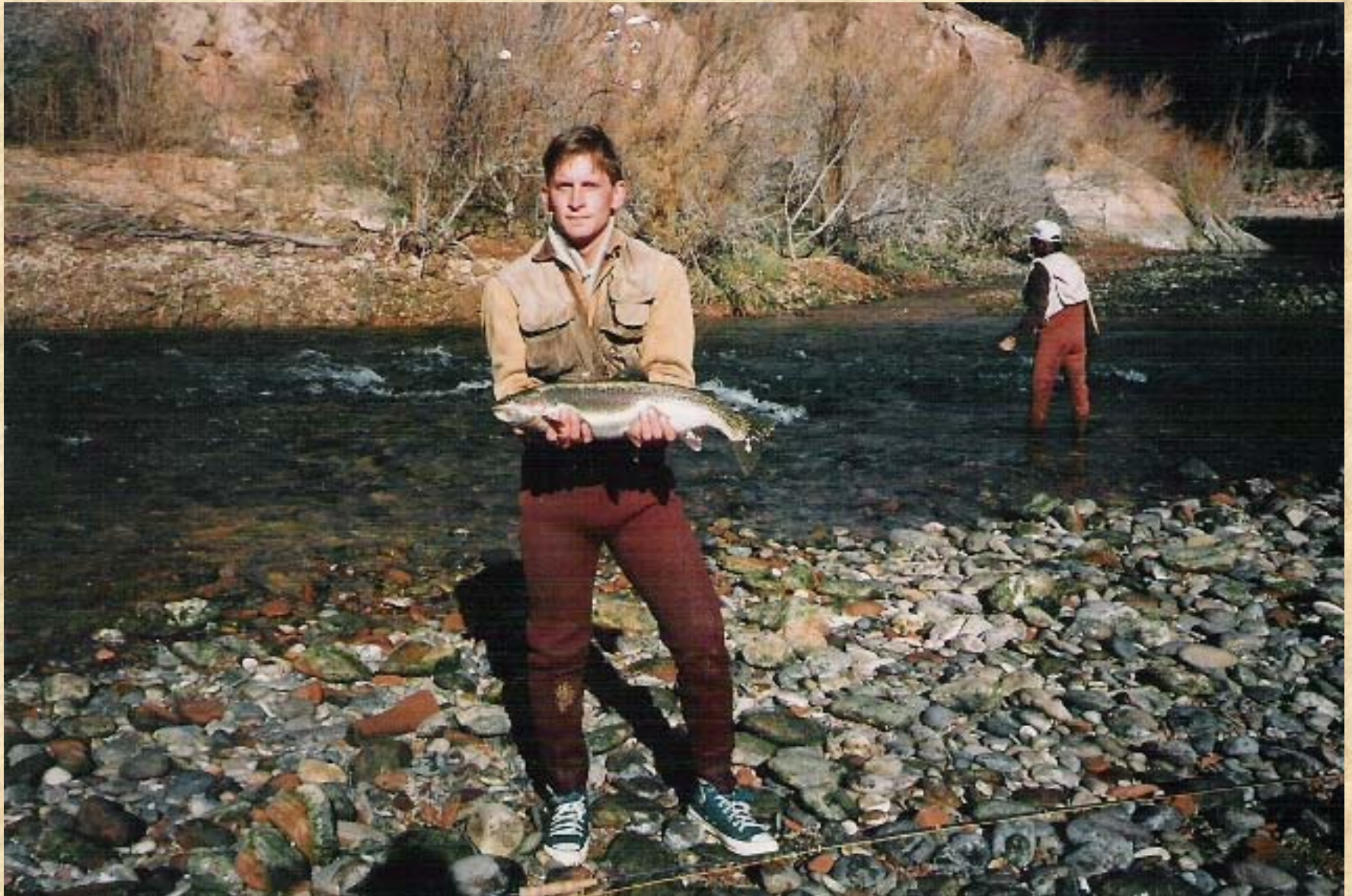
## *Upstream of Lees Ferry*

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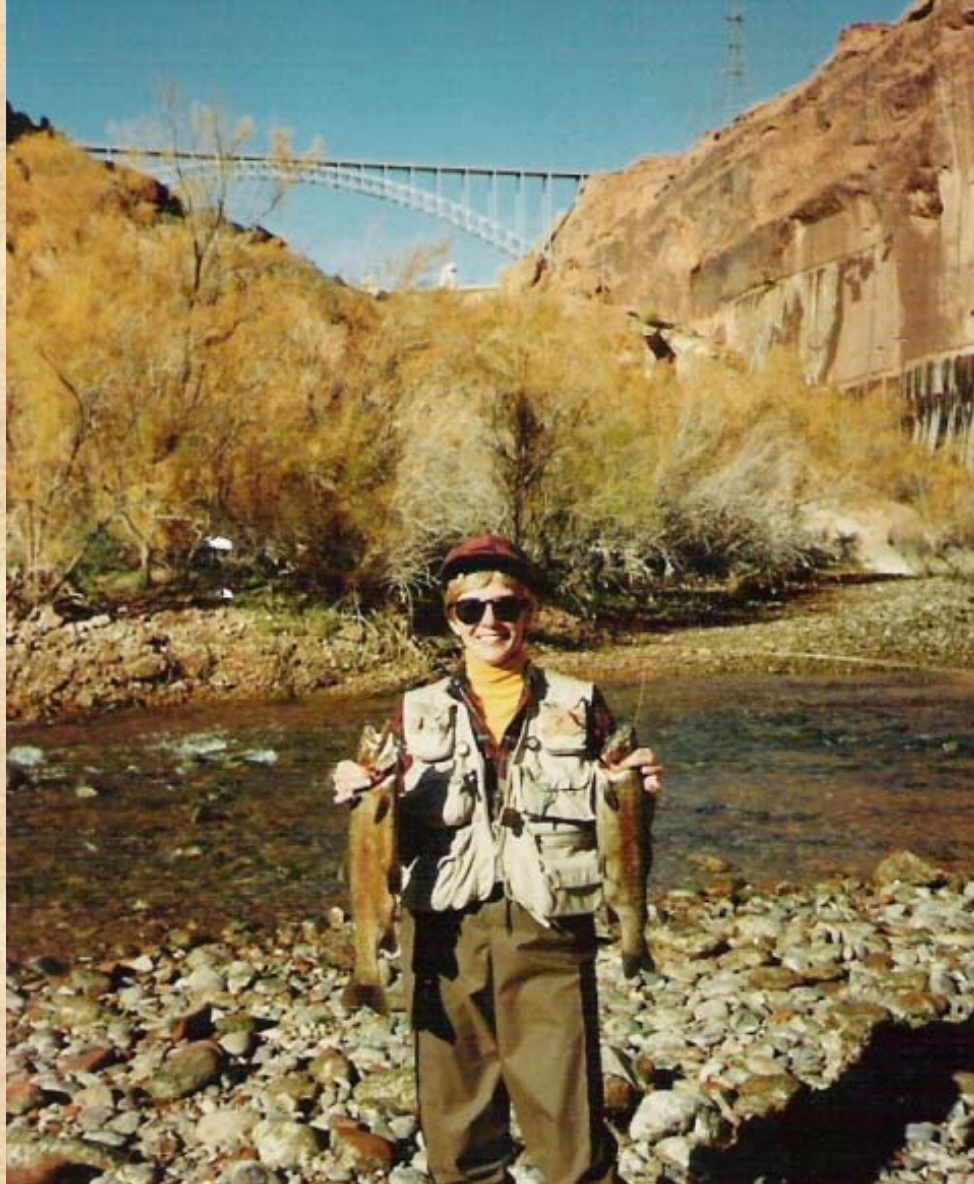
## *Upstream of Lees Ferry*

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## *Upstream of Lees Ferry*

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## ***Walking Area around Lees Ferry Boat Docks***

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## ***Walking Area around Lees Ferry Boat Docks***

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## ***Walking Area around Lees Ferry Boat Docks***

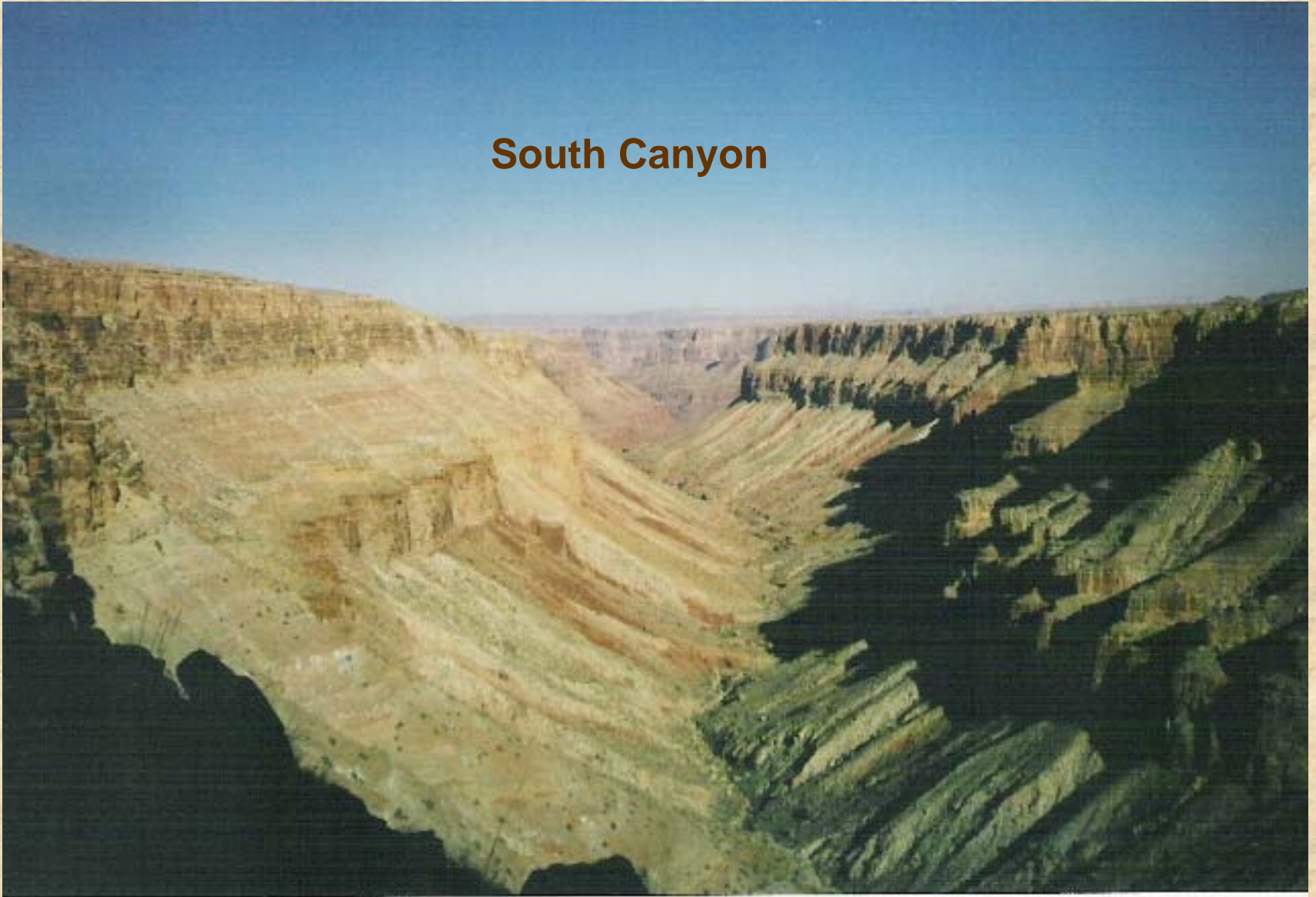
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# *Hiking in Grand Canyon*

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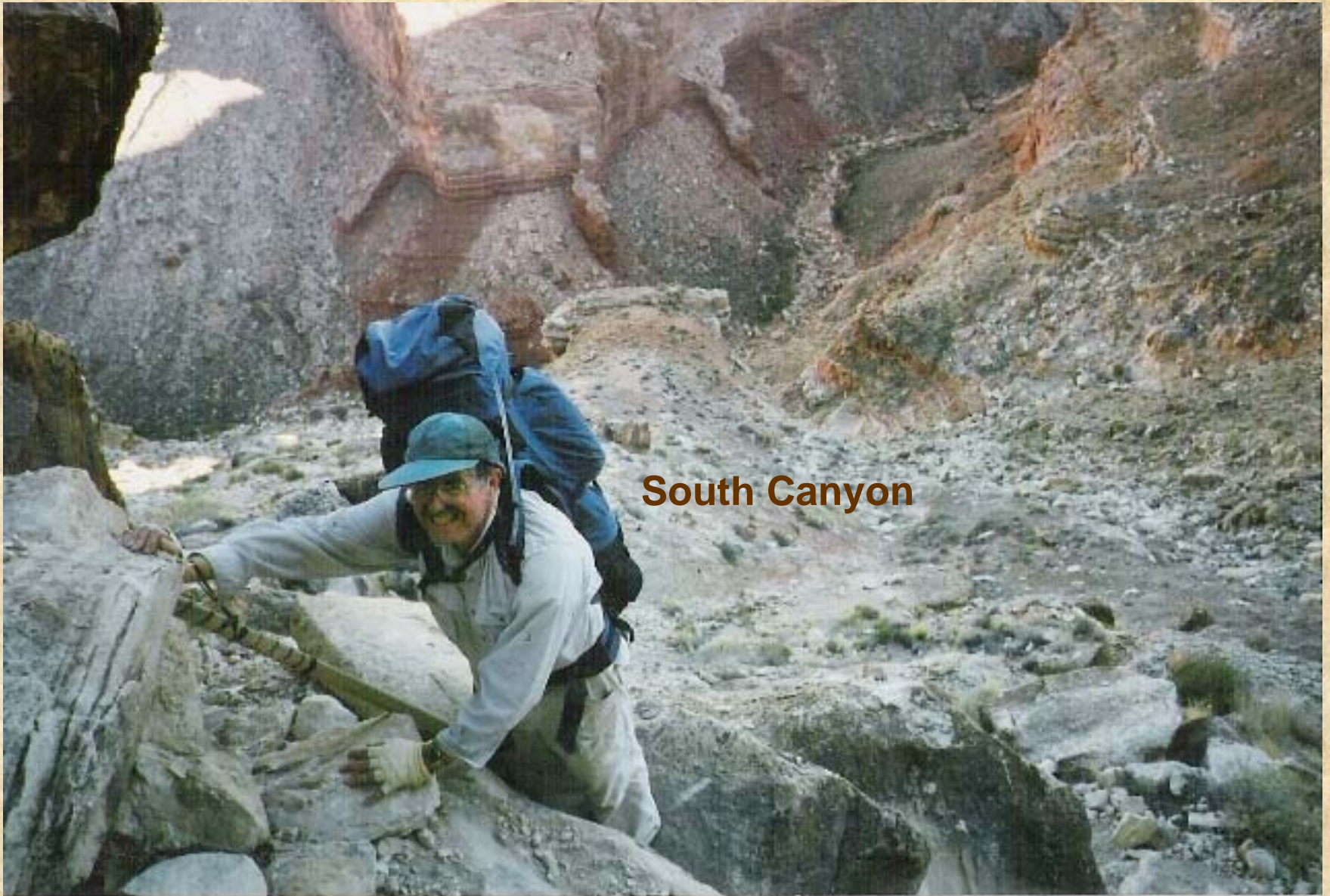
**South Canyon**





# Hiking in Grand Canyon

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South Canyon

# *Hiking in Grand Canyon*

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# *Hiking in Grand Canyon*

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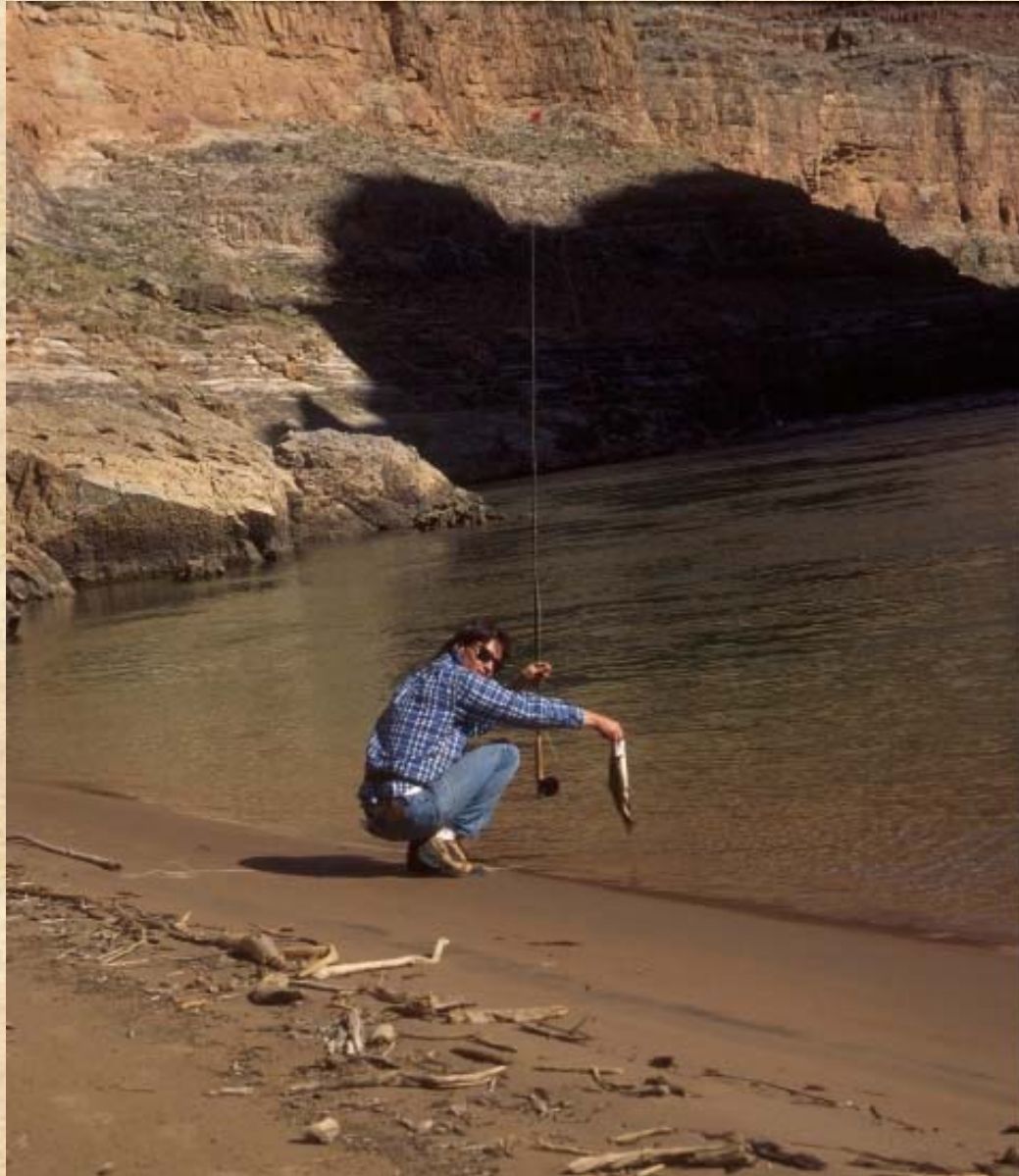
# *Hiking in Grand Canyon*

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# Hiking in Grand Canyon

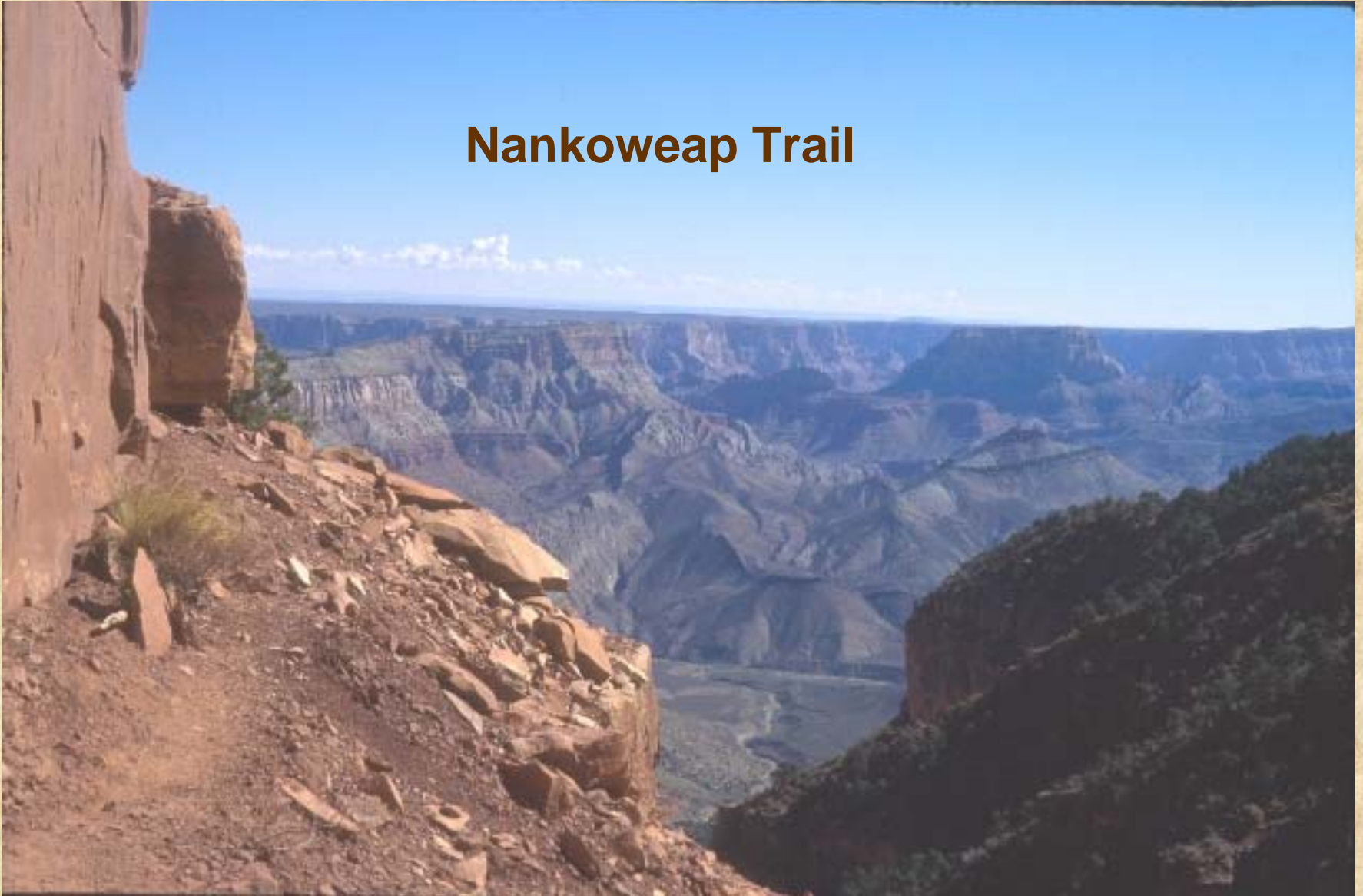
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# *Hiking in Grand Canyon*

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## **Nankoweap Trail**



# *Hiking in Grand Canyon*

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# *Hiking in Grand Canyon*

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# *Hiking in Grand Canyon*

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# ***Bright Angel Creek in Grand Canyon***

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# ***Bright Angel Creek in Grand Canyon***

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# ***Bright Angel Creek in Grand Canyon***

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## ***Bright Angel Creek in Grand Canyon***

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# ***Bright Angel Creek in Grand Canyon***

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# ***Bright Angel Creek in Grand Canyon***

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# ***Bright Angel Creek in Grand Canyon***

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# ***Bright Angel Creek in Grand Canyon***

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# ***Bright Angel Creek in Grand Canyon***

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# ***Grand Canyon River Rafting Trips***

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