A local perspective on the Lees Ferry trout fishery. By Terry Gunn, owner of Lees Ferry Anglers and Cliff Dwellers Lodge

<http://www.azflyandtie.com/flyforum/showthread.php?t=6981>



Me on my very first day of fishing Lees Ferry. In case you are curious...it weighted 12-lbs.

Wow, this is a complicated issue, I'm not sure that I have all the answers to this question; however, here is my best effort at explaining the fish history at Lees Ferry.

Lees Ferry Fishing History

I have spent more than 60,000 hours on and mostly knee deep in this big river and I thought that it was time for me to pen a brief history of fishing at Lees Ferry from my perspective; I'm not sure that I have all the answers; however, here is my best effort at explaining the fish history at Lees Ferry as I have seen it. I have no formal training in fisheries, like most guides I got all my training on the job. Over the years I have read every available study and report I could get my hands on relating to the ecology, trout behavior, entomology, and everything published regarding the fishery on this river. In the process we built in the late 1990’s what was at that time the largest fishing guide service in the world. There has been a lot water flow under my boat and I have likely touched more wild trout than any other man on earth; that is not a bold statement but one that humbles me with the privilege.

Let's start in the beginning:
1963 Rainbow trout were stocked in the Lees Ferry reach of the Colorado River as were mayflies, caddis, scuds, cladophora (algae) snails and crayfish.
For the next 10 years nobody fished this stretch of river and these fish grew to immense size unmolested by man.
By the mid-70's the Ferry was discovered, the limit was 10 fish and there were many limits that came out of this river that exceed 100-lbs. The limit was reduced in 1978 from 10 to 4 fish. Brookies and lahontan cutthroat were stocked in the late 70's and also grew really big. The largest brookie that I ever saw weighed 5-lbs after it was gutted. The largest cutthroat was near 8-lbs. I caught a 33 1/2 in rainbow in 1984 and in 85 saw a 16.5-lb fish that was caught in front of the boat dock. There are rumors that a kid from Page once caught a trout that he cleaned and gutted and after he hiked back up ropes trail with the fish it weighed 20-lbs. We did not talk in inches at the Ferry we described fish in pounds. Lees Ferry was the best trophy trout fishery in the world. What created it and what happened to it? No one really knows.

The theory of new and fertile reservoir makes perfect sense from the standpoint that the new water in Lake Powell was full of nutrients, however, there was an exception to that theory at Willow Beach, the tailwater below Hoover that produced thousands of giant rainbows (state record rainbow 21-lb 5.5 oz, Sept 1966) 30 years AFTER the construction of the Lake Meade reservoir.

Could it have been something as simple as sewage that was allowed to flow into the river from Vegas and Page that dramatically increased the nutrient load and allowed trout to attain massive size? I truly believe this to be as good a theory as any and one that I have never heard discussed.

I started guiding here in 1983, the same year of the great flood when the river flowed at 100,000-cfs. This volume of water essentially stripped the river of all of the food and big fish need lots of food to survive. After the flood there were remnant large fish but not near the numbers that existed prior to 1983. By this time Arizona anglers were spoiled; I remember when people were disappointed because the biggest fish that they would catch in a day of fishing was ONLY an 8 pounder. Stocking of brookies and cutthroats were discontinued while the annual stocking of fingerling rainbow trout continued.

From 1984 through 86 the water releases from Glen Canyon Dam averaged 35-40,000-cfs. That is a bunch of water. Fish started growing again and by the late 80's we were catching lots of large fish; I remember days where my clients would catch more than a hundred fish that were 20 to 24-in long. In those days almost everyone was using night crawlers with spinning rods (Larry Allen was fly fishing) and often the fish took the bait deep and died. In 1986 we pushed for and received a new regulation that required the use of artificial flies and lures only. Fishing got better and better. Kamloops trout were stocked but never did well.

In 1989 we had opened Lees Ferry Anglers Fly shop and Guide Service just in time for the government to begin studying the effects of Glen Canyon Dam with a program called Glen Canyon Environmental Studies (GCES) headed by David Wagner, (who later became involved in The Glen Canyon Institute, a group dedicated to the decommissioning of Glen Canyon Dam and who now works for Congress!). For 2 years, releases were radically altered on a 2 week basis then the river was held level at 5,000-cfs for 3 days while measurements were taken. This is the famous time where all the fish became "snakes" with long skinny bodies and big heads. The poor fish condition was attributed to a nematode infestation; I say that the trout were starving to death as a result of the erratic flows.

In the early 90's, following the studies and erratic flows, the fishery crashed hard; there were hardly any fish left in the river. We asked the AZ Game and Fish Department to stock fish at Lees Ferry and they responded by stocking 60,000 "catchable" trout in the river. With 20-20 hindsight, this may be the single biggest mistake that we ever made at Lees Ferry. With the "native" trout population depleted, the introduced fish (belaire strain) interbred and possibly became the dominate strain of trout at the Ferry. I remember that a year after the 6-in "catchable" fish were stocked they were all 18-inches, shiny and fat river rockets (they were very recognizable due to their hatchery origins, tails and fins were distorted). A year and two years later they were still 18-inches. I believe that their growth was not limited by food but genetics. These fish interbred with the native fish and that Lees Ferry gene still pops up once in a while and we see a fish well into the 20's but they are rare. Stocking at Lees Ferry was stopped with the exception of a few fingerlings released with nose tags to try and track their progress.

The 90's saw Interim Flows at Lees Ferry which changed the way Glen Canyon Dam was operated. The same flows were designed to protect the environment of the Grand Canyon and the Lees Ferry trout fishery (hard to believe but the fishery was once that important). The regulated river flows, a full reservoir, and high snow pack in the Rockies, all combined into perfect conditions for the Lees Ferry trout fishery to boom throughout the 90's. My business grew to where we had 14 full time guides and there were plenty of other guides working the river as independents. It was boom time not only for the fishery but the economy was hitting on all cylinders. The fish were big and there were lots of them. Anyone could catch fish at Lees Ferry and people came from all over the country to fish this river. Lees Ferry Anglers Fly Shop became one of the largest retailers of fly fishing equipment in the United States. In 1996 we saw the first experimental "flood" which had little effect on the trout fishery but brought the concept of "saving and restoring the Grand Canyon" through artificial floods, into every living room in America via every network and cable TV station in the country.

Then came the Great Western Drought. In the summer of 1999, Lake Powell was close to full with reservoir storage at 23.5 million acre-feet, or 97 percent of capacity. 2000 was a really dry year with very little runoff. The Bureau of Reclamation was being pressured by the Grand Canyon Trust and other environmental groups to study the effects of steady flows on the Colorado River, since there was no water coming in this was the perfect year for them to conduct an experiment where they could also reduce water going out of the lake. So a very hasty experiment was organized where the flows were reduced to 8,000 CFS for June, July, August, September, and October. These months are normally high water months. There we were, with a river that is chock full of big trout and the water was suddenly reduced by more than 50%. Well, guess what happened? The fish got stressed, there was not enough food, and the fish started dying. Too many fish, not enough water and food equals disaster and the fishery crashed AGAIN. The 8,000-cfs experimental flows caused much more damage to the resource than the trout population crash: Conditions were perfect for the propagation of the New Zealand Mud Snail. Prior to the experimental flow we had seen not one Mud Snail, at the conclusion of the experiment the Mud Snails were everywhere in the river, the New Zealand Mud Snail population had become established and exploded to levels that were incomprehensible. In addition to this the conditions created by the low flow experiment had allowed the explosion of growth of tamarisk trees, (an invasive, exotic specie of tree) to grow in thick carpets all along the river, right down to the edge of the 8,000-cfs level. We organized groups to pull tammies and I spent my days guiding and pulling trees and we were able to save many of our fishing areas from being overcome by these trees. There was nothing that we could do about the snails...they were here by the billions.

It was around this time that some goofball who worked for the AZ Game and Fish Department estimated that the trout population at Lees Ferry was 50,000 fish per mile. All of us locals knew that this estimate was way out of line with reality. About this same time there was a sudden idea that developed with the scientists that were researching the river (GCMRC) that if there were this many trout in the river they must be having a negative impact on the native fish, the humpback chub. Despite the fact that there was very little science to back up this supposition it gained momentum and resulted in another experimental flow regime that was enacted in 2003 and 2004, this flow was perfect for the power producers and was loved and embraced by many…it was a step back to the flows that prompted all of the studies and all the environmental impact statements…these flows allowed the river to drop to 5,000 cfs in the evenings and early morning hours (conserve water) then early in the day (9AM, the time that power demand starts to increase) the flows were quickly ramped up to 20,000-cfs (close to the maximum power production allowed by the current legislation), then ramped back down to 5,000 cfs. If the power producers could design the “perfect flow scenario” from their perspective, this would be just about it. These experimental flows had a devastating effect on the trout spawn and the recreational fishery at Lees Ferry. It was a couple years later that the trout population had declined to such a level that the guides and public asked the Arizona Game and Fish department to once again stock fish at Lees Ferry. They agreed that there were too few fish in the Lees Ferry reach and in the process of investigating the stocking of trout they received a notice from two environmental groups, Living Rivers, and The Center for Biodiversity, who both announced that they would sue the AZG&FD if the plans to stock trout continued. The AZG&FD backed down and did not stock. Luckily the trout recovered.

Most all the science that has demonstrated that Rainbow Trout harm the Humpback Chub was developed around the supposition that the trout population was 50,000 trout per mile THROUGHOUT MOST OF THE RIVER SYSTEM…FROM GLEN CANYON DAM PAST THE LITTLE COLORADO RIVER. Later studies concluded that the trout population was overestimated by a factor of 7.5! However, rainbow trout were now the bad boy of the system, the alleged reason for the decline of the HBC. History will prove this wrong; I assure you that on any given day, great blue herons, ospreys, cormorants, and catfish eat more chubs than rainbow trout ever have or will. Rainbow trout are not piscivorous, they eat insects not fish.

Coincident with the Trout Suppression Flows was the “great western drought”; over a 5 year period from 2000 through 2004, unregulated inflow into Lake Powell was substantially below average. This resulted in Lake Powell storage decreasing during this period to 8.0 million acre-feet (the lake was 33 percent of total capacity!) which occurred on April 8, 2005. The Bureau of reclamation conducted another High Flow Experiment; the timing of this flood was very poorly timed to occur when no flood had ever previously occurred on the river. It happened in November. No one knows why (timing?) but this flood really hammered the aquatic food source. The scud population was severely depleted and it has taken several years for the scud population to recover and several years later is just now returning to pre-flood levels. This time the fishery did not bounce back like it had every other time, nobody understood what was going on, me included. The fish were growing slow, there were not many of them and we had several years of poor spawns (trout suppression flows).

It came to me suddenly in February 2006… I figured it out. In mid February, the sun climbs high into the sky which allows sunlight back into the canyon and lets us to see into the river... This particular day I looked around and saw a river that was full of Algae...it was everywhere, wall to wall, shore to shore! This was something that I have not seen in years and something that I forgot that I was not seeing. It dawned on me that the river was suddenly healthy and it had to be a result of the large water inflow into Lake Powell the previous year and the reason that our fishery had been doing so poorly for the past several years was the fact that there was hardly any water inflow into Lake Powell (compounded by the erratic and extreme experimental Trout Suppression Flows); the lake and river WAS STARVING FOR NUTRIENTS!!! Now those nutrients were back. The above normal winter snow pack and runoff into Lake Powell in 2005, stirred up a tremendous amount of nutrient laden sediment that had accumulated at the lake mouths of the Colorado River, San Juan River, and the Green River. Lake Powell elevation increased 43-ft. and the rivers flowing into the lake mixed the sediment and nutrients into the lake water. The turning point and the beginning for the recovery of the Lees Ferry fishery occurred in 2005 when Lake Powell had the first above normal snow-pack and runoff year since 1997. Since then we have had normal or above normal runoff almost every year.

The increased nutrient load in the lake and river is evident by the dramatic increase in aquatic vegetation and aquatic organisms that has occurred throughout the river since 2006. As of this writing 03/08/2010, the fish population is back to near the levels of the late 90's. The river is full of large and healthy fish. For those of you that remember what the fishing was like in 1999 and 2000 you should be as excited as I am about the current conditions and what the increased nutrient load should do for the fishing at Lees Ferry. In 2008 we got another experimental flood. This one was of short duration and happened at a more “normal” time, early March. We don't know if it was a direct result of the flood or what but the new Zealand Mud Snails have essentially disappeared ever since. Immediately following the experimental flood, just about every fish in the river was spawning...this is something that we have never seen before and have not seen since.

Last year, 2009, the average fish that I was putting into my net was a very fat 17-inches, and we were catching lots of larger fish. Then we had the invasion of all the fish that hatched 2 years ago from the epic spawn that followed the 2008 experimental flood. Now the river is chock full of all sizes of fish from 12 to 20-in, however, we are currently catching lots of the smaller fish because there are so many of them and they have yet to be educated (I’m working on that). I do not remember a time where the river ever held so many different year classes of fish as we see today; this should bode well for several years to come.

What the future holds for this fishery is in constant dispute. A couple years ago, Living Rivers and The Center for Biodiversity threatened the Arizona Game and Fish Department with legal action if they were to stock fish at Lees Ferry. There are those that want to see Glen Canyon Dam removed so the river can once again flow free. Rainbow Trout are being blamed by many (with little or no scientific evidence to support the claim) for harming the Humped Backed Chub in the Grand Canyon. The Grand Canyon trust is currently suing the Bureau of Reclamation to try and force them to run steady flows from Glen Canyon Dam, they want low flows in the summer, winter, and fall, high flows in the spring. They think this is going to help the Chub. Not sure what this would do to the trout fishery but it the Grand Canyon Trust prevails in the lawsuit it would seriously reduce and almost eliminate the ability of Glen Canyon Dam to generate electricity. This would put thousands of tons of additional carbon in the atmosphere since this electricity will have to be replaced and the only feasible replacement is construction of yet another coal fired plant somewhere in the southwest. And of course there is the least predictable and most important ingredient of all...the weather. It is possible that we might not be out of the drought and that Lake Powell could once again enter a dramatic decline. On the other side there is always the chance that the flood of 1983 could once again occur and wash everything away.

I cannot waste my time worrying about what might happen to the river that has given me and many others so much. I'm just going to keep doing what I have done for most of my life...helping others to enjoy the beauty of Glen Canyon, guiding and sharing my knowledge of trout and fishing, and to continue to do everything in my power to help to protect this National Treasure, the Lees Ferry Trout fishery.

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