Creating a Native Sport Fishery: Legacy of the White Salmon By Dan Wilson

The tailwaters of Glen Canyon Dam support a popular blue ribbon trout fishery which brings in millions of dollars annually. Sport anglers strongly support rainbow trout fisheries because of the sport involved in catching rainbow trout, the delicious taste and because rainbow trout are very photogenic. It is unfortunate that the support of the sport fishery in the Grand Canyon is focused on an alien fish. Alien fishes have contributed to demise of native fishes not only in the Grand Canyon but around North America (Wilson 2005 this edition, Moyle et al. 1987). In Wilson (2005), I proposed that after drastic reductions in alien fish populations and an increase in native populations that the aura of the sport fishery should be focused more on the reintroduction of the Colorado pikeminnow (aka The White Salmon) (see figure 1). Irving and Modde (2000) believe that Colorado pikeminnow will use habitat if they are given access to it. Throughout my journey in the Grand Canyon, I was curious to see if there were any tributaries that had potential to provide habitat for the Colorado pikeminnow. The purpose of this flog is to summarize my analysis of the tributaries with respect to their potential in providing habitat to the reintroduced Colorado Pikeminnow.



Figure 1: Colorado Pikeminnow (*Ptychocheilus lucius*). Photo courtesy of Colorado State University Larval Fish Laboratory (http://www.cnr.colostate.edu/lfl).

The tributaries which I observed (Shimano Creek, Elves Chasm, Tapeats Creek, Deer Creek and Kanab Creek) seem too small for ideal habitat for Colorado Pikeminnow. In the upper Colorado River, the Colorado pikeminnow have been observed spawning in rivers such as the Green River and Yampa River (Irving and Modde, 2000). These rivers are relatively larger than the tributaries we observed in the Grand Canyon. I suspect that a large fish like the Colorado pikeminnow would not find the small tributaries we observed suitable for spawning habitat.

I was unable to observe other tributaries up stream from RM 90. Large tributaries upstream from RM 90 like the Little Colorado River, Bright Angel Creek and the Paria River may have a higher potential in providing suitable habitat for the Colorado pikeminnow.

If suitable habitat were to be found in the tributaries of the Grand Canyon plans should be drafted in the attempt to reintroduce the Colorado pikeminnow. If alien fishes are present in the area, plans should initially begin by mechanically removing them. Once reductions in alien fishes have been successful, reintroductions of the Colorado pikeminnow should be initiated. The reintroduced populations should be closely monitored. If the reintroductions show local success then more locations for reintroduction should be investigated in order to expand their range.

Needless to say, this is a lofty goal with a low chance of success. Based on the observations I made during the trip, alien fishes are widespread throughout the canyon and are probably there to stay. The presence of alien fish in the backwaters such as plains killifish and fathead minnow show that the managed flood of 2004, much like the Test Flood of 1996, may have been ineffective in reducing their populations. The presence of channel catfish and carp in the mainstem is also evidence which shows that they may have been unaffected by the managed flood as well. Clearly alien fishes may very well be a permanent obstacle for the success of reintroducing the Colorado pikeminnow.

Even though this appears to be a lofty goal, the underlying message should be taken seriously. Management protocol should focus on benefiting native fishes rather than promoting an alien sport fishery. I proposed the reintroduction of the Colorado pikeminnow to eventually replace the blue ribbon trout fishery so that more funds could be generated to support native fishes in the Grand Canyon while managing for a native

sport fishery. This idea will only work if sport fishermen support the idea of creating a native sport fishery in sacrifice of the blue ribbon trout fishery. To me the idea of a native Colorado River fishery seems rather attractive. After all, how many other sport fisheries in the world can say that they have a trophy White Salmon fishery?

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