

## FALLEN LEAF LAKE - LAHONTAN CUTTHROAT TROUT REINTRODUCTION PROGRAM

Beginning in 2002 the USFWS and partners began stocking Pilot Peak Lahontan cutthroat trout (LCT) into Fallen Leaf Lake. This effort was undertaken in order to reintroduce a lake form of this subspecies within the Tahoe basin. The Pilot Peak LCT strain is native to the basin, long lived, and grows to truly impressive size. This lake strain is thought to live 15-20 years and the largest LCT captured prior to the 1930's from Fallen Leaf Lake was 29 pounds. The California state record for this subspecies is from Lake Tahoe in 1911 and weighed over 31 pounds.

Fallen Leaf Lake is historic LCT habitat connected to Lake Tahoe by Taylor Creek. This lake's similarity to Lake Tahoe is instrumental for the evaluation and development of successful LCT conservation strategies. Some of the documented success of the Fallen Leaf Lake reintroduction program includes; multiyear survival of LCT, increased angler catch rates of LCT, and reproduction of LCT. In 2012 U.S. Fish and Wildlife Service biologists from the Lahontan National Fish Hatchery Complex and their research partners documented LCT reproduction in Glen Alpine Creek. This is a major milestone for the reintroduction program and recovery of this subspecies.

The Fallen Leaf Lake reintroduction program success has come from Fallen Leaf Lake community support, adaptive management, and stocking strategies that have enhanced LCT survival and overwintering. In addition to LCT reproduction occurring in Glen Alpine Creek nonnative rainbow trout were also observed reproducing. For a self-sustaining population of LCT in Fallen Leaf Lake to be successful, spawning between LCT and rainbow trout has to be eliminated. Any hybridization between LCT and rainbow trout leads to the loss of the LCT population and severely impedes the LCT reintroduction program at Fallen Leaf Lake.

To manage LCT spawning and prevent hybridization with rainbow trout, two weirs have been installed in Glen Alpine Creek, one at the interface of the lake and creek and the other approximately 230 meters upstream. Both weirs have been in place since mid-March to control access to spawning areas from Fallen Leaf Lake and act as a barricade to downstream movement of rainbow trout in the upper watershed. Although the weirs block access for mature trout to Glen Alpine Creek, other native species found in the watershed, Lahontan redband shiners, Paiute sculpin, and speckled dace are able to move through the ½ inch spacing of the bars at either weir. Upon completion of the spawning season, both weirs will be outfitted with a fry box to capture fry produced within and above the spawning areas to ensure that hybridization is not occurring and to measure LCT reproductive success. Once fry are checked genetically, LCT will be released into Fallen Leaf Lake.

The combined efforts at Fallen Leaf Lake have now resulted in a native, lacustrine strain of LCT that is spawning in the Tahoe basin for the first time since their extirpation in the 1930's. The reintroduction program success has progressed by creating a niche for LCT that allows this species to fulfill its life history while providing a native, near-shore fishery. The LCT conservation achievement currently occurring at Fallen Leaf Lake is unprecedented and only possible because of the outstanding support of the Fallen Leaf Lake community and our agency partners.



Please call (775) 861-6329 if you have questions or would like additional information.