

Lahontan Cutthroat Trout

Oncorhynchus clarki hensawi

chances for survival:
poor

2

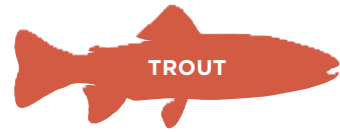


PHOTO: GERARD CARMONA

The Lahontan cutthroat trout is a distinctive subspecies of cutthroat trout native to the western Great Basin. These fish are recognized by their generally yellowish coloration, heavy black spotting, and red slash marks under the jaw. Lahontan cutthroats historically occurred in a wide variety of stream and lake habitats, ranging from terminal alkaline lakes, such as Pyramid and Walker Lakes, to the clear alpine waters of Lake Tahoe and Independence Lake. They were found in large, low gradient rivers, such as the Humboldt River in Nevada, moderate gradient streams, such as the Carson and Walker Rivers,

and small, headwater tributary streams, such as Donner and Prosser Creeks. Lahontan cutthroat trout are most plentiful in well vegetated cold water streams with abundant cover and in large lakes. They feed primarily on terrestrial and aquatic invertebrates, but large individuals often feed on juvenile fish. Spawning takes place in streams from April

to July depending on stream flows, water temperatures, and elevation.

DISTRIBUTION: Lahontan cutthroat trout are native to the Great Basin watersheds in eastern California, southern Oregon, and northern Nevada. In California, they were found only in the Carson, Walker, Truckee, and Susan River

drainages on the east side of the Sierra Nevada Mountains. In 1844, their distribution included 11 lake populations occupying approximately 334,000 acres of lakes and other populations living in more than 3,600 miles of streams. Today, there are approximately 17 lakes and streams that still contain Lahontan cutthroats within their historical range and an additional nine creeks outside of their historic native range.

ABUNDANCE: Lahontan cutthroat populations in California most likely contain less than 200 adult fish each. Definitive population estimates for Lahontans are lacking, but it is estimated that they now occupy less than 11% of their original stream habitat and less than 1% (0.4%) of their original lake habitat. Wild self-sustaining populations in the headwater streams of California likely total only a few hundred fish age one and older. There is only one self-sustaining wild lake population of Lahontan cutthroat trout in California, located in Independence Lake.

FACTORS AFFECTING STATUS: The threats to Lahontan cutthroat trout include, (1) non-native fish introductions which create problems of competition, predation and hybridization, (2) overfishing during the 19th and early 20th centuries, (3) water diversions, (4) impacts to habitat from overgrazing, logging, and development, and (5) loss of genetic diversity. Re-introductions of Lahontan cutthroats can only be made to streams and lakes from which non-native trout have been eliminated, indicating that interactions with alien trout are the single biggest factor in their decline.

STATUS 2: Lahontan cutthroat trout have a high likelihood of extinction in California within 50 to 100 years. They are listed as threatened under both federal and state Endangered Species Acts. As of 1999, ten populations of Lahontan cutthroats had been reestablished in their native range

in California; however all but one suffer from geographic isolation and small population sizes. Hatchery propagation of Lahontan cutthroats has been ongoing since 1939 and continues today with releases of approximately 50,000 fish a year. Habitat alteration, abundant alien trout, and the loss of inter-connected populations has left managers trying to recover a species with very little habitat available for re-introductions. Survival of the fish will require innovative management, habitat restoration, and the elimination of competing species of trout from their streams.

CONSERVATION RECOMMENDATIONS: Conservation challenges for the Lahontan cutthroat trout include determining suitable remaining habitats for re-introduction, habitat restoration, and elimination of competing species of trout from reintroduction watersheds. Continued management efforts are necessary to maintain the genetic diversity of Lahontan cutthroat trout, since wild populations are no longer inter-connected due to dams, diversions and urbanization.



Independence Lake. PHOTO: PETER MOYLE



Historic Range Of Lahontan Cutthroat Trout



California Trout is There for the Fish!

In 1999, California Trout worked with the California Department of Fish and Game to establish the Heritage Trout Program to protect the state's native trout and steelhead. Heenan Lake and the Upper Truckee River are included in the Heritage Trout Program, both of which are home to the Lahontan cutthroat trout.

CATEGORY	SCORE	EXPLANATION
Range	3	Occupies multiple watersheds in California, but they are not connected
Population size	3	Wild populations have less than 1,000 fish each
Intervention needs	2	Hatchery programs using wild brood stock are required for survival
Tolerance	5	They are fairly long-lived, breed multiple times and demonstrate broad physiological tolerances.
Genetic risk	1	Hybridization risk and loss of genetic variation is well documented
Climate change	1	Lahontan cutthroats are vulnerable to climate change in all watersheds inhabited
Overall status	2	
Reliability	4	Reports concerning this risk level are found in published scientific literature