Habitat Changes Put Western US Trout At Risk

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Released brown trout in Willow Creek of Star Valley, Wyoming protected.

That's according to multi-agency study, published this week in the peer-reviewed science journal “Proceedings of the National Academy of Sciences”, which predicts native cutthroat throughout the West could decline by as much as 58 percent and introduced brook trout could decline by as much as 77 percent.

Rainbow and brown trout populations, according to the study, would also decline by an estimated 35 percent and 48 percent, respectively.

The results were reported by a team of 11 scientists from Colorado State University, Trout Unlimited, the U.S. Forest Service Rocky Mountain Research Station, the U.S. Geological Survey and the University of Washington Climate Impacts Group.

Researchers say the losses would have significant impacts on trout fishing, which generates hundreds of millions of dollars in recreation annually in the United States and is a major factor drawing anglers to Colorado and the West. The study also notes that the decline of cutthroat trout is of particular significance because cutthroats are the only trout native to much of the West and a keystone species in the Rocky Mountain ecosystem.

Seth Wenger, the paper’s lead author stated: “The study advances our understanding of climate change impacts by looking beyond temperature increases to the role of flooding and interactions between species. The study also is notable in scope, using data from nearly 10,000 sites throughout about 400,000 square miles of the Western United States.”

Wenger noted that while the predictions are dire, there is some hope. “By restoring and reconnecting coldwater drainages and by protecting existing healthy habitat largely located on public lands in the West, some of the decline in trout populations might be avoided”, he explained.

“Trout Unlimited is working to protect remaining strongholds and restore degraded habitat – exactly the kind of things that need to be done to reduce the impact of a changing climate on coldwater fisheries in the West,” Wenger said.

“This research also builds on 15 years of work with graduate students at CSU to find ways to prevent our native cutthroat trout from going extinct in the face of declining habitat and nonnative trout invasions,” said co-author Kurt Fausch, professor in CSU’s Department of Fish, Wildlife and Conservation Biology and an expert on trout ecology and management in the West.

Scientists note that most of the 14 unique forms (subspecies) of cutthroat trout are already in trouble—two are extinct, and most of the rest now occupy less than 15 percent of their historic native range with several of these listed under the Endangered Species Act.

The study can be read in its entirety online at the Proceedings of the National Academy of Sciences website [2].