

Native Trout Species' Survival is Linked to our Activity on Land

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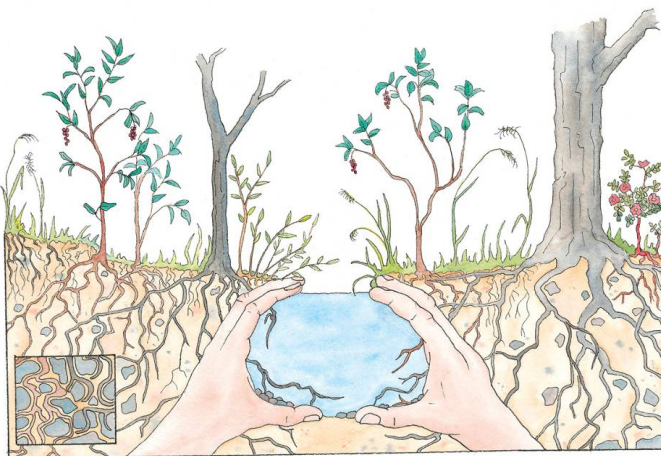
Westslope Cutthroat Trout (*Oncorhynchus clarkii lewisi*) embody the Alberta landscape and are a symbol of adaptability and resilience. The red slash marking the jawline of this epic trout is an emblem of its cutthroat tenacity. These fish saw the last of the continental glaciers, those kilometre-thick blocks of ice that shaped most of Alberta, and survived. It is disheartening to think that a once prolific and widespread species that thrived here for thousands of years, is now listed as *threatened*, reduced to less than 10 percent of its historic range and confined to a handful of headwater streams in the eastern slopes of the Canadian Rockies.



Photo by Fisheries and Oceans Canada

The streams that support Westslope Cutthroat Trout are streams that support our communities; if a species that could survive the extreme conditions of glaciers can no longer survive, it is an indication the human footprint has drastically altered the adaptive capacity of our watersheds. Native fish have stringent requirements, making their presence the gold seal of water quality and a metric of watershed health. So, it follows, as watershed quality fails, so do the fish.

The cool, clean water that trout require to survive is a function of healthy riparian habitat (the transition zone between our aquatic and upland environments). Overhanging trees and shrubs provide shade, shelter from predators, a source of woody debris for in-stream habitat and important sources of food.



In terms of water quality, riparian areas help to absorb and filter runoff. They act like giant sponges, helping to trap and store moisture below the ground, releasing it later in the season to maintain flow and provide essential overwintering habitat. Deep binding roots from riparian vegetation maintain the stability of streambanks, reducing erosion and sediment.

Excess sediment can pose serious problems for trout, covering spawning gravels and preventing fish from seeing prey. Alterations to the streambank and floodplain, such as heavy rutting and muddogging from

off-highway vehicles; soil compaction from random camping; vehicle trails; concentrated livestock use; and removal of riparian vegetation for various reasons can all destroy fish habitat.

The fate of Westslope Cutthroat Trout, as well as other native trout, is intrinsically linked to our activity on the landscape. Cows and Fish strives to foster a better understanding of how improvements in management of riparian areas can enhance health and productivity of our watersheds for the benefit of communities and for fish and wildlife. We have led or partnered on several riparian restoration projects to benefit native trout and their habitat over the years.

In February 2019, we hosted the eighth Westslope Cutthroat Trout Stakeholder Workshop to bring together those involved with fish or land management to continue to work collectively to save this threatened species and its habitat. We also partnered with the Elbow River Watershed Partnership to help restore a section of Silvester Creek, which is critical habitat in the Elbow River watershed. Ultimately, the success of efforts to protect and restore habitat will require cooperation and collaboration from multiple user groups.

The eastern slopes of Alberta are the last stronghold for native trout populations, but that stronghold continues to shrink, reducing their chance of survival. While the myriad of land use impacts may seem insurmountable, with restoration projects and carefully considered land-use planning in headwater reaches, we hope to positively influence the legacy we leave for future generations.

To save this epic fish, urgent action is needed; this is a call to action for the people of Alberta to take ownership of these issues, to rethink, rebuild and restore not only their watersheds, but also their sense of community. Taking ownership means taking responsibility for the impacts of your choices and acting as a steward to foster healthy landscapes. For more information on riparian management and restoration, visit: <http://cowsandfish.org/>.

