# Taking Back the Range - Removing Junipers Restores an Oregon Ranch

By Brianna Randall, NRCS Working Lands for Wildlife · Dec 08, 2021

John O'Keeffe, a third-generation rancher, stands in a lush meadow below the Warner Mountains near Adel, Oregon. His cattle graze in a rolling sea of sagebrush a few hundred yards away.

From the meadow, it looks picture-perfect. But like many rangelands in the western United States, O'Keeffe's agricultural operation is threatened by an unlikely invader: trees.

"My dad used to take photos of the ranch. Then 20 years later, I'd look at the pictures and wouldn't even recognize the place. The juniper was closing in, and I was just watching my ranch slowly disappear before my eyes," says O'Keeffe, pointing to the line of conifer trees on the hillside.

After a century of fire suppression, a green glacier of juniper has spread down from the Warner Mountains' rocky ridges, taking over prime grazing land. Science has demonstrated how encroaching conifer trees erode the health of rangelands by reducing the amount of water available (https://www.sagegrouseinitiative.com/sagebrush-rangelands-help-maintain-water-availability/) , diminishing soil health, and crowding out native perennial plants (https://www.sagegrouseinitiative.com/roots/) that feed wildlife and cattle. As trees become dense, they also fuel hotter and more severe wildfires (https://www.sagegrouseinitiative.com/ask-an-expert-the-green-glacier-what-is-conifer-encroachment-and-why-is-it-bad/) .

A 'green glacier' of conifers is threatening the health and productivity of grazing lands across the western United States.

On O'Keeffe's ranch, the junipers have spread so much within his lifetime that it has caused a substantial reduction in forage over the years and make it tougher to run his ranch. He and a cowboy would cut juniper from a few acres each summer to keep trails and springs open, but they couldn't keep up.

"You can only do so much out of an operating budget," says O'Keeffe.

Then, in 2010, he signed up for a brush management program through the USDA Natural Resources Conservation Service (NRCS) that provided cost-sharing for cutting conifers at a larger scale across the landscape.

Over the next decade, O'Keeffe became a leader in a [first-of-its-kind effort (https://www.sagegrouseinitiative.com/sage-grouse-populations-grow-faster-after-tree-removal/)](https://www.sagegrouseinitiative.com/sage-grouse-populations-grow-faster-after-tree-removal/) to reclaim the disappearing sagebrush range. Private landowners in the Warner Mountains teamed up with the NRCS, the Bureau of Land Management, and other state and local partners to remove young juniper trees from historic shrublands with hand-held chainsaws while leaving old-growth woodlands alone.

O'Keeffe and his neighbors worked hand-in-hand with these public partners to restore 53-square miles of sagebrush country.
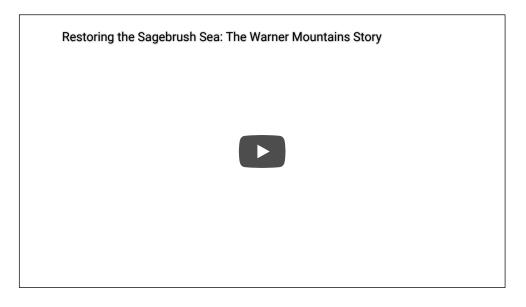


During his lifetime, John O'Keeffe says conifer expansion on his ranch reduced forage for his cattle. Thanks to large-scale conifer removal efforts, the sagebrush range here is healthy again for livestock and wildlife.

"The programs kept coming, and we kept signing up. And we did a lot of good," says O'Keeffe. "I really felt like I was getting my ranch back."

Native plants rebounded quickly, providing more forage for livestock. Juniper removal also paid off by boosting the amount of water available on O'Keeffe's ranch, which helps in dry years like this past one.

*Watch the video about the Warner Mountains project featuring John O'Keeffe:*



Restoring the Sagebrush Sea: The Warner Mountains Story

Plus, wildlife benefited after conifers were removed. Scientists found that sagebrush songbird abundance doubled (https://www.sagegrouseinitiative.com/sagebrush-songbirds-sage-grouse-umbrella/) , and the amount of high-quality habitat for sage grouse increased six-fold. Research (https://www.sagegrouseinitiative.com/sage-grouse-populations-grow-faster-after-tree-removal/) published this summer in Ecosphere found sage grouse populations grew at a rate that was 12 percent higher where trees were cut versus areas where no trees were removed.

"I'm really thrilled about the whole picture of what's happening from the ridge top to the valley bottom in the Warner Mountains," says Jeremy Maestas, an NRCS ecologist who worked on the project.

Jeremy Maestas of the NRCS (left) and rancher John O'Keeffe (right) worked together with other ranchers and public partners to restore 53 square miles of sagebrush rangeland in Oregon's Warner Mountains by cutting junipers.

O'Keeffe hopes the success in the Warner Mountains will inspire ranchers in other communities to work together to improve the productivity of grazing lands. NRCS Working Lands for Wildlife (WLFW) provides financial and technical support (https://wlfw.rangelands.app/) for private landowners looking to remove trees from western rangelands. Since 2010, WLFW has conserved more than 10 million acres of rangelands with 3,261 participating ranchers in sagebrush country and the Great Plains grasslands.

O'Keeffe aspires for his grandchildren to see sagebrush and meadows on the ranch as they grow, rather than a forest of junipers.

"As a rancher, you're tied to the land and it means a lot to you," says O'Keeffe. "It's important to take care of the land, to leave it better than you found it. Working with the NRCS to remove conifers has been one of the real big steps in being able to do that."

To learn more about NRCS conservation programs, ranchers and other agricultural producers should contact their local USDA Service Center (http://www.farmers.gov/service-locator) .

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