

RESOURCES

FIRE IN THE SHRUB-STEPPE

INVASIVE SPECIES

NATIVE SEEDS AND GRASSES



Photo: Hilary Lundgren, WRCD

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Jerry has been involved with resource management in the western United States for nearly 50 years and has managed hundreds of restoration projects for a broad array of wildlife species. He has long term experience as a botanist and in wildlife habitat restoration as well as native grass and wildflower seed production. His work supports the work of state, federal, First Nations, non-profit, and property owners.

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To learn more about BFI Native Seeds, visit:
<http://bfinativeseeds.com/index.php>

WDFW Shrub-Steppe and Grassland
Restoration Manual:

<https://wdfw.wa.gov/sites/default/files/publications/01330/wdfw01330.pdf>

Post-fire monitoring system being used by
BLM in ESR projects:

<https://jornada.nmsu.edu/monit-assess/manuals/monitoring>

Q&A

1. *What kinds of writings or films could you suggest sharing with both young people and folks who have yet to understand the beauty and importance of the shrub-steppe and the challenges to restore and sustain integrity to the region. There are educational opportunities, of course, short and long term, that could promote a greater awareness and appreciation. Thank you.*

- [US Fish and Wildlife Service website – Invasive Weeds and Wildland Fire](#)
- [Up in Smoke – Fire and Invasive Species on Western Rangelands video](#)
- [Washington Department of Fish and Wildlife Shrub Steppe website](#)
- [Audubon Rockies – Cheatgrass, Fire, and Sagebrush website](#)
- [Cheatgrass in Sagebrush Country Fueling Severe Wildfires video](#)

2. *a. Are all the hundreds of little terraces seen on hillsides from cattle (mostly)?*

Yes, cattle and sheep.

b. Would they be there prior to cattle grazing?

Various types of wildlife also have travel pathways that become established over time, but they would not be as prolific.

Q&A (continued)

3. *How has overgrazing or under-grazing affected burn severity and the ability of native species in the shrub steppe recover from wildfire?*

Overgrazing kills native bunch grasses and associated native species, while increasing the frequency and size of less palatable species such as sagebrush. Increased fuels from larger, more dense sagebrush fuels more destructive wildfires that further degrade native understory species. Soil disturbance and the depletion of native bunchgrasses, caused by overgrazing, promotes the introduction of weedy species such as cheatgrass that recover quickly after fires and can lead to fire cycles that are more frequent. The removal of vegetation from the land, along with the disturbed soils also increases erosion potential post fire. This can further increase infestations of invasive species.

In a functioning ecosystem with no land use history/co-dependence on grazing disturbance, such as Columbia Basin Shrub-Steppe, there is no such thing as "under grazing". If such an ecosystem is still intact, grazing by cows isn't necessary.