

EASTERN REDCEDAR IS INVASIVE

Eastern redcedar is currently the most rapidly expanding woody plant species in the Great Plains.

Fire historically prevented the expansion of redcedar into rangelands. Suppression of these fires and intentional planting of redcedar in windbreaks have been identified as the primary factors facilitating redcedar invasion into rangelands.



According to the North American Breeding Bird Survey, 64% of grassland birds have experienced population declines since 1966. Nebraska's privately owned rangelands provide critical habitat for many of these imperiled species. However, redcedar invasion threatens these rangelands and the people and wildlife that depend on them. Thus, it's no surprise that redcedar invasion is listed as Nebraska's biggest threat to conservation.

To tackle the current redcedar issue, Nebraskans need to become aware of the gravity of this issue. Inside, you will learn more about what happens when redcedar invades rangelands and what you can do to help.



The University of Nebraska does not discriminate based upon any protected status. Please see go.unl.edu/nondiscrimination.

HELLO EASTERN REDCEDAR GOODBYE NEBRASKA RANGELANDS

EC3024

Why Nebraskans
should care about
redcedar invasion



DID YOU KNOW?

When redcedar becomes dominant in rangelands...

- Forage production declines up to 75% ⁽¹⁾
- Nebraska public schools lose \$400,000/yr due to annual expenditures on redcedar control on grazing leases ⁽²⁾
- Stream flows can be reduced by 40% ⁽³⁾



- Wildfire risk increases, as redcedar produces fire intensities well over those capable of being suppressed by firefighters ⁽⁴⁾
- Upland game birds are displaced ⁽⁵⁾
- Game bird nests are more likely to be predated ⁽⁶⁾



- Fruit trees become vulnerable to cedar-apple rust, a harmful fungus ⁽⁷⁾

1. S. D. Fuhlendorf et al., 219-238 in *Western North American Juniperus Communities*. Springer New York, (2008).
2. D. Lally et al., UNL BeefWatch (2016).
3. C. B. Zou et al., *Ecohydrology* 9, 807-816 (2015).
4. D. Twidwell et al., *Frontiers in Ecology and the Environment* 11, 64-71 (2013).
5. K. K. Bakker, *Proceedings of the South Dakota Academy of Science* 82, 119-141 (2003).
6. J. S. Borgo & M. R. Conover, *Waterbirds* 39, 74-80 (2016).
7. J. Olsen, Oklahoma Cooperative Extension Service (EPP-7611).



A lesson we can learn from the southern Great Plains

Redcedar invasion in the southern Great Plains has taken over vast areas of rangeland in Texas and Oklahoma. Due to its native status, redcedar invasion was initially not taken seriously until the issue had grown too large to control with conventional techniques. The lesson learned is that responding to redcedar after invasion does not bode well for rangelands. As redcedar invades an area the invasion rate increases rapidly along with the cost of mechanical removal. In Nebraska we have an opportunity to save our rangelands if we take action to stop and prevent the invasion of redcedar.

You can stop redcedar spread!

- Support prescribed fire
- Use fire to manage rangelands
- Stop planting redcedar
- Remove redcedar from windbreaks
- Educate your neighbors

For more info on redcedar management see V. L. Simonsen et al., University of Nebraska Extension (EC1784); T. G. Bidwell & J. R. Weir,