



Changing with the range: Striving for ecosystem resilience in the age of invasive annual grasses

Vanessa Schroeder, OSU Senior Faculty Research Assistant I

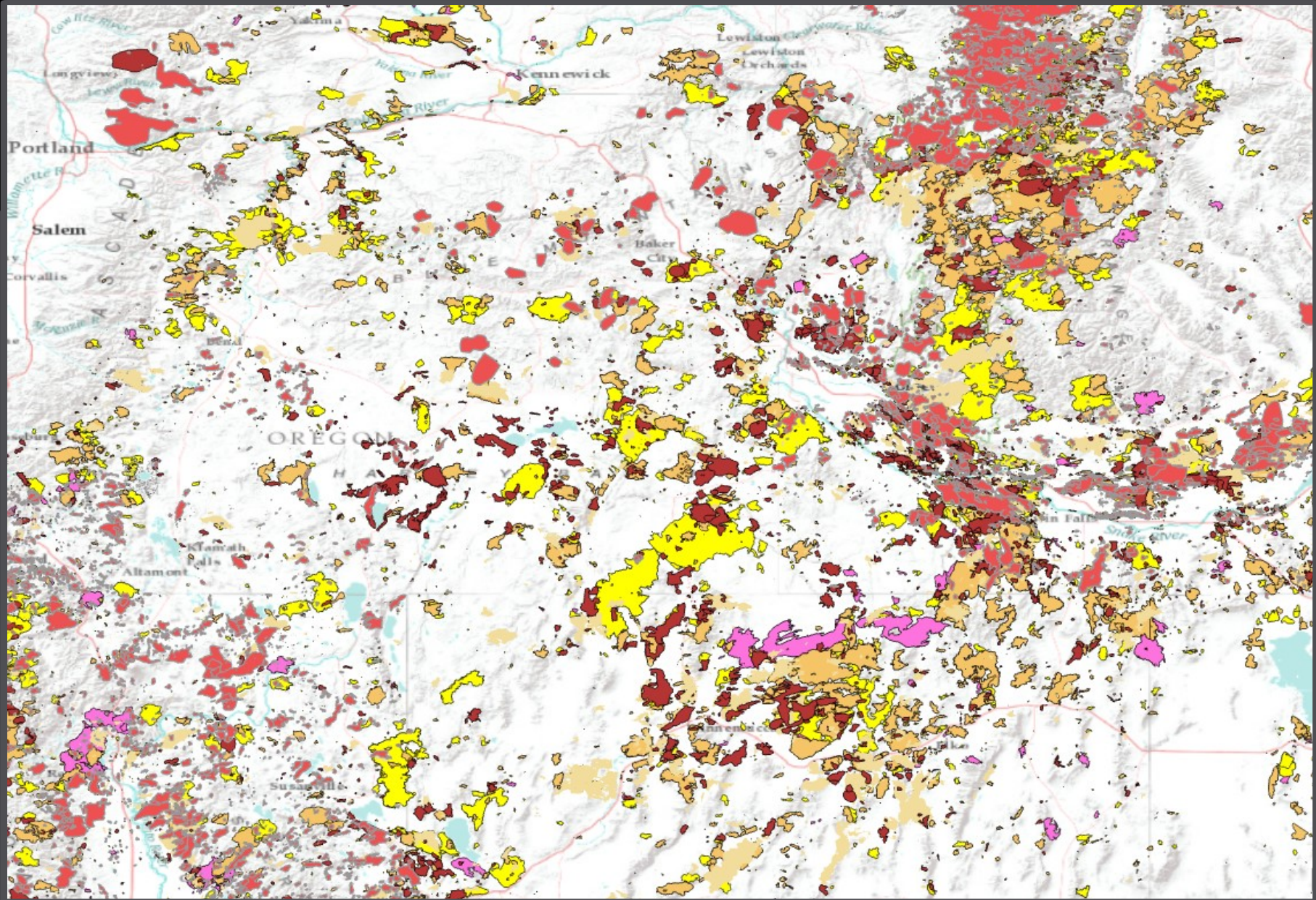
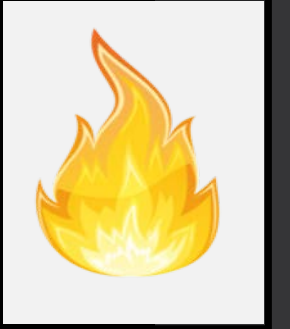
Dustin Johnson, OSU Rangeland Outreach Specialist

Brenda Smith, High Desert Partnership Executive Director

SageCon Summit 2022

November 2, 2022

What is the Biggest Issue in Rangelands Today?



Fire perimeters by decade



HIGH DESERT
Partnership



Oregon State
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Goal: to discuss ways to develop a collaborative and strategic approach to tackling invasive annual grass/ wildfire issue



Preface for Special Issue

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Brenda S. Smith 

Toward integrated fire management to promote ecosystem resilience

Katherine Wollstein, Megan K. Creutzburg, Christopher Dunn, Dustin D. Johnson, Casey O'Connor, Chad S. Boyd


Defend the core: Maintaining intact rangelands by reducing vulnerability to invasive annual grasses

Jeremy D. Maestas ^{a, d, e} , Mark Porter ^b, Matt Cahill ^c, Dirac Twidwell ^d

A geographic strategy for cross-jurisdictional, proactive management of invasive annual grasses in Oregon

Megan K. Creutzburg ^{a, d, e} , Andrew C. Olsen ^b, Molly A. Anthony ^c, Jeremy D. Maestas ^d, Jacqueline B. Cupples ^e, Nicholas R. Vora ^{f, 1}, Brady W. Allred ^{g, h}

Ratcheting up resilience in the northern Great Basin

Dustin Johnson ^{a, d, e} , Chad Boyd ^b, Rory C. O'Connor ^b, Dustin Smith ^c

Grazing management to reduce wildfire risk in invasive annual grass prone sagebrush communities

Kirk W. Davies ^{a, e} , Katie Wollstein ^b, Bill Dragt ^c, Casey O'Connor ^c



Free online:
<https://beav.es/ieC>

Managing for resilient sagebrush plant communities in the modern era: We're not in 1850 anymore

Chad S. Boyd ^{1, e} 

Managing invasive annual grasses, annually: A case for more case studies

Vanessa M. Schroeder, Dustin D. Johnson, Rory C. O'Connor, Carter G. Crouch, William J. Dragt, Harold E. Quicke, Lynne F. Silva, Debbie J. Wood

Minimize the bad days: Wildland fire response and suppression success

Katherine Wollstein ^{a, d, e} , Casey O'Connor ^b, Jacob Gear ^b, Rod Hoagland ^c

The range has changed: My viewpoint on living in the Sagebrush Sea in the new normal of invasives and wildfire

Matt Cahill ^{1, e} 

Four paths toward realizing the full potential of using native plants during ecosystem restoration in the Intermountain West

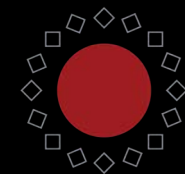
Owen W. Baughman ¹, Sarah M. Kulpa ², Roger L. Sheley ³

Prioritizing limited resources in landscape-scale management projects

Brenda S. Smith ^{a, e} , Julie K. Unfried ^b, Dallas K. Hall Defrees ^c, Debbie J. Wood ^d



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Key Themes

Bunchgrasses are badass (and key to resilience)



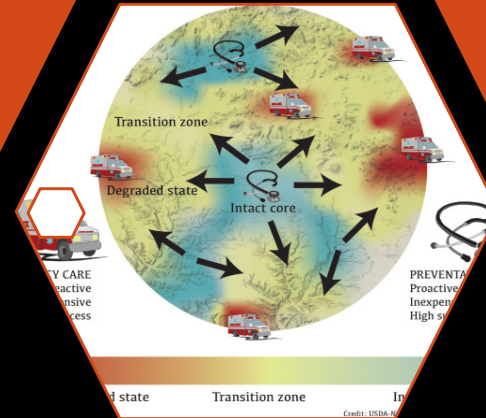
Prioritize Proactive Management to Defend the Core



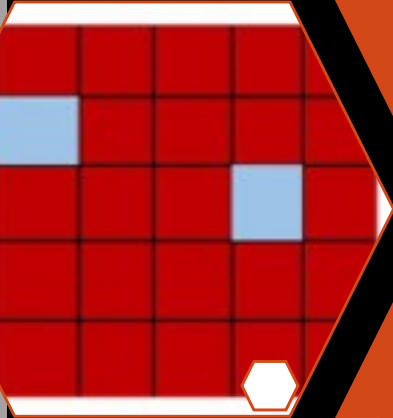
Community Based Partnerships Get Things Done



Translating Science into Action is Tough



Landscape Context Matters





Natural Resources Conservation Service
U.S. DEPARTMENT OF AGRICULTURE



UNIVERSITY OF
Nebraska
Lincoln



OREGON
DEPARTMENT OF
AGRICULTURE

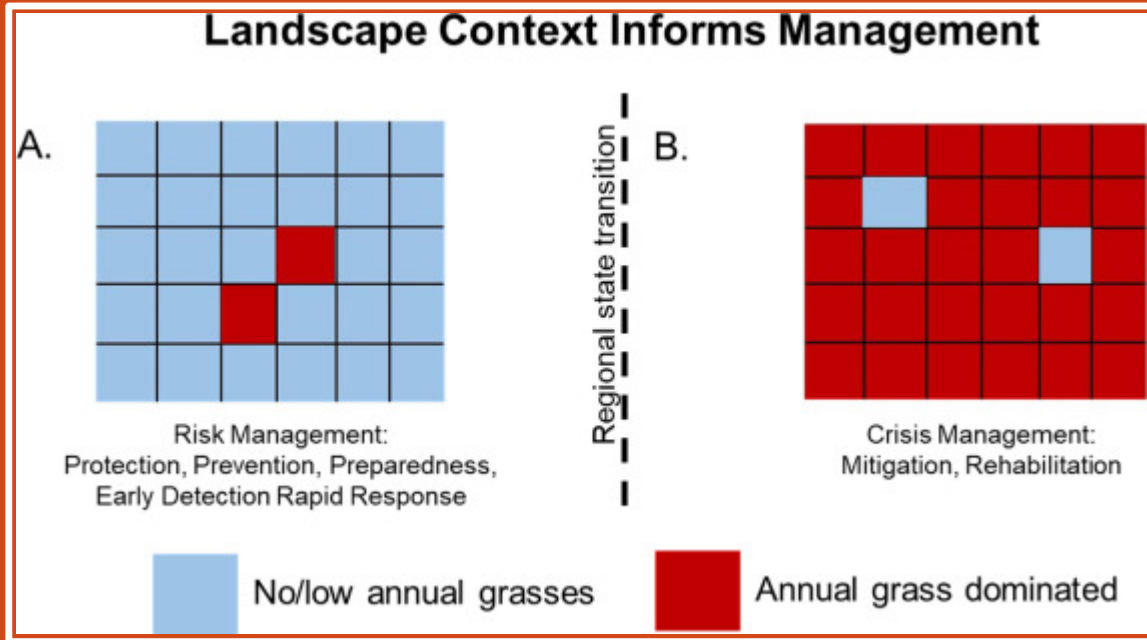


The Nature
Conservancy



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Landscape Context Matters



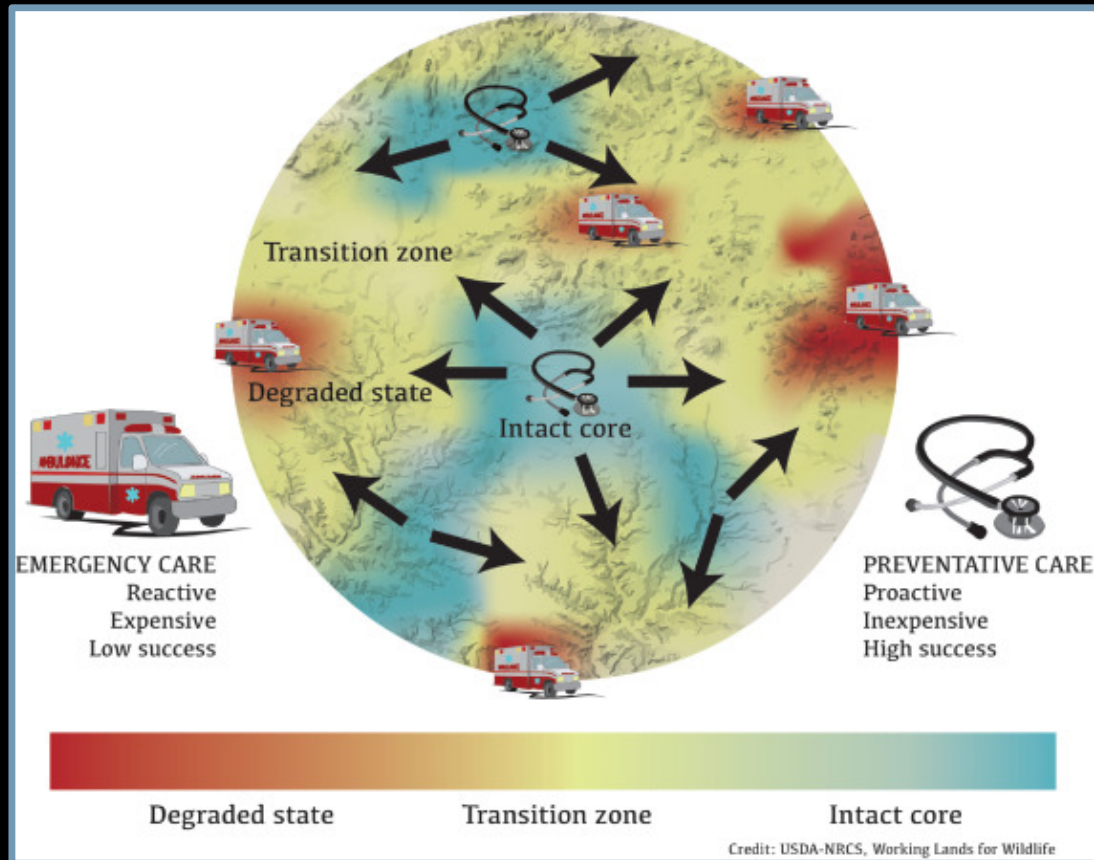
- 1) What kind of landscape do I live or work in?
 - 2) Am I already in a crisis or should I be working to prevent one?
- Spatial datasets provide landscape context, shared vision, and facilitate discussion
 - **Call to action:** Work strategically to put the right practices in the right places

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Defend the core: Maintaining intact rangelands by reducing vulnerability to invasive annual grasses
Jeremy D. Maestas, Mark Porter, Matt Cahill, Dirac Twidwell

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Matt Cahill

Prioritize Proactive Management to Defend the Core



- Fire prevention in low R&R core areas
- Rangeland management as fire management
- Invest wisely
- **Call to action:** Work collaboratively to translate the geographic strategy into on the ground management

Toward integrated fire management to promote ecosystem resilience

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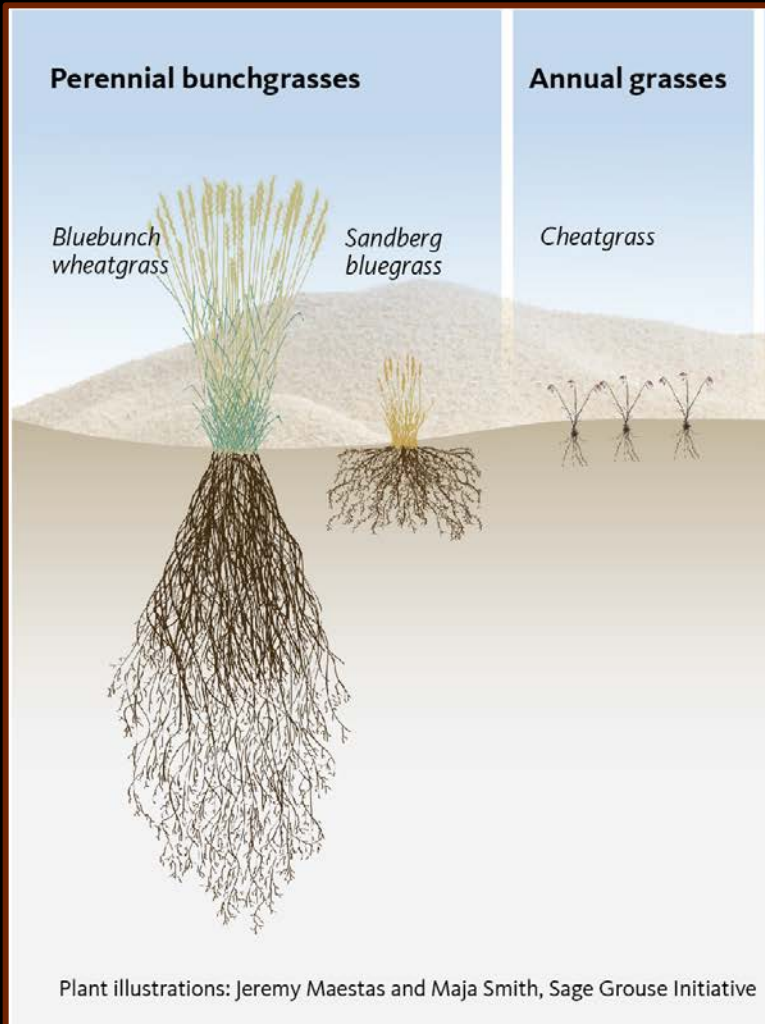
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Grazing management to reduce wildfire risk in invasive annual grass prone sagebrush communities

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Bunchgrasses are badass!



- Not all grasses were created equal
- Bunchgrasses = key to ecosystem resilience
- Not enough to just kill the weeds
- Restoration as a process
- **Call to action:** commitment to:
 - sustained funding,
 - pre-emptive ecosystem planning
 - enable sustained investments and innovative practices



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Translating Science into Action is Tough



- Transitioning from science to management is rocky
- Management case studies present unique opportunities to translate best available science into effective on-the-ground restoration.
- It's not just about the science!
- **Call to action:** tighten science/management relationship, invest in more case studies, develop better knowledge sharing and tech transfer

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Prioritizing limited resources in landscape-scale management projects

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Brenda S. Smith

Community Based Partnerships Get Things Done



- Problem too complex to solve solo
- Effective coordination is key
- Resilient ecosystems require resilient management systems
- **Call to action:** enable and empower community-based partnerships
 - invest in sustained funding
 - build adaptive capacity

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Final Thoughts

- Defend the Core is about banding together
- What would it take for you to hit the ground running tomorrow to start making real progress in defending and growing the core?
- Who at this partnership might be able to help you make that happen?
- How can we leverage the current inflow resources and further these calls to action?



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