

Relevant Studies

Impacts of Noxious Weeds

Thematic Assessment Report on Invasive Alien Species and their Control <https://www.ipbes.net/ias>

Invasive Species in Forests and Rangelands of the United States: A Comprehensive Science Synthesis for the United States Forest Sector, <https://link.springer.com/book/10.1007/978-3-030-45367-1>

BCPOS Small Grant Funded Research

For more see: [Research on Open Space - Boulder County](#)

Cheatgrass, Mammals, Birds, Butterflies, and Wildfire: A Study of Ecosystem Interactions, 2023, Anyll Markevich, Stephen R. Jones, Christel G. Markevich, Timothy R. Seastedt
<https://assets.bouldercounty.gov/wp-content/uploads/2024/02/cheatgrass-wildlife-wildfire.pdf>

Plant and soil microbial community composition legacies along a 5-year time series gradient post-indaziflam (Rejuvra™) herbicide treatment, 2023, Ember Bradbury, Amy Gill, and Caroline A. Havrilla
<https://assets.bouldercounty.gov/wp-content/uploads/2024/02/micobial-composition-post-indaziflam.pdf>

Incorporation of indaziflam (Rejuvra®) into Boulder County Parks and Open Space Weed Management: A Post-Fire Assessment, 2021, Christina Alba, PhD, Michelle DePrenger-Levin
<https://assets.bouldercounty.gov/wp-content/uploads/2022/02/indaziflam-weed-management-post-fire.pdf>

Bringing back flowering plants and pollinators through effective control of invasive winter annual grasses with Esplanade® herbicide, 2018, Arathi Seshadri and Janet Hardin
<https://assets.bouldercounty.gov/wp-content/uploads/2019/03/bringing-back-flowering-plants-pollinators.pdf>

Cheatgrass and Wildfire Studies

Cheatgrass invasions: History, causes, consequences, and solutions Cheatgrass White Paper Dec 2023
[Cheatgrass White Paper Dec 2023 formatted \(westernwatersheds.org\)](#)

Long-Term Effects of Repeated Fires On The Diversity And Composition of Great Basin Sagebrush Plant Communities, Adam Lee Mahood, [Thesis](#), Tim Seastedt, advisor
https://scholar.colorado.edu/concern/graduate_thesis_or_dissertations/hm50ts08c

Postfire Downy Brome (*Bromus tectorum*) Invasion at High Elevations in Wyoming, Brian A. Mealor, Samuel Cox, and D. Terrance Booth [Postfire Downy Brome \(*Bromus tectorum*\) Invasion at High Elevations in Wyoming \(bioone.org\)](#)

Seed Bank Depletion: The Key to Long-Term Downy Brome (*Bromus tectorum* L.) Management, Derek

J. Sebastian, Scott J. Nissen b, James R. Sebastian c, K. George Beck b [Seed Bank Depletion: The Key to Long-Term Downy Brome \(*Bromus tectorum* L.\) Management \(bioone.org\)](#)

Cheatgrass: Management Implications in the 90's, Thomas C. Roberts, Jr. [Cheatgrass: Management Implications in the 90's \(arizona.edu\)](#)

Controlling annual grasses in sagebrush communities with higher resistance and resilience is crucial to prevent fire risk and invasion expansion. Harrison, Georgia Rae. (2023-08). Theses and Dissertations Collection, University of Idaho Library Digital Collections. [Controlling annual grasses in sagebrush communities with higher resistance and resilience is crucial to prevent fire risk and invasion expansion | Theses and Dissertations Collection \(uidaho.edu\)](#)

Introduced annual grass increases regional fire activity across the arid western USA (1980–2009) Jennifer K. Balch, Bethany A. Bradley, Carla M. D'Antonio, José Gómez-Dans [Introduced annual grass increases regional fire activity across the arid western USA \(19802009\) \(umass.edu\)](#)

The human–grass–fire cycle: how people and invasives co-occur to drive fire regimes. Emily J Fusco, Jennifer K Balch, Adam L Mahood, R Chelsea Nagy, Alexandra D Syphard, Bethany A Bradley [The human–grass–fire cycle: how people and invasives co-occur to drive fire regimes \(nsf.gov\)](#)

Recent Increases in Bromus Populations on the Nevada Test Site: present status of *B. rubens* and *B. tectorum* with notes on their relationship to disturbance and altitude, Richard Hunter [Bromus invasions on the Nevada Test Site: present status of *B. rubens* and *B. tectorum* with notes on their relationship to disturbance and altitude \(byu.edu\)](#)

Historical wildfires do not promote cheatgrass invasion in a western Great Plains steppe, Lauren M. Porensky & Dana M. Blumenthal, 15 July 2016 [201710cheatgrass-1.pdf \(gpfirescience.org\)](#)

Cheatgrass-Wildfire Cycle – Are there any Solutions? Mike Pellant [Proceedings-symposium on cheatgrass invasion, shrub die-off, and other aspects of shrub biology and management \(usda.gov\)](#)

Changing Fire Frequencies on Idaho's Snake River Plains: Ecological and Management Implications, Steven G. Whisenant [Proceedings-symposium on cheatgrass invasion, shrub die-off, and other aspects of shrub biology and management \(usda.gov\)](#)

Indaziflam reduces downy brome (*Bromus tectorum*) density and cover five years after treatment in sagebrush-grasslands with no impact on perennial grass cover, Jacob S. Courkamp¹, Paul J. Meiman² and Scott J. Nissen³ [Indaziflam reduces downy brome \(*Bromus tectorum*\) density and cover five years after treatment in sagebrush-grasslands with no impact on perennial grass cover \(bioone.org\)](#)

Fire needs annual grasses more than annual grasses need fire, Joseph Smith, Brady W. Allred, Chad Boyd, Kirk W. Davies [Fire needs annual grasses more than annual grasses need fire - ScienceDirect](#)

Cheatgrass (*Bromus tectorum*) distribution in the intermountain Western United States and its relationship to fire frequency, seasonality, and ignitions, Bethany A. Bradley, Caroline A. Curtis, Emily J. Fusco, John T. Abatzoglou, Jennifer K. Balch, Sepideh Dadashi & Mao-Ning Tuanmu [Cheatgrass \(*Bromus tectorum*\) distribution in the intermountain Western United States and its relationship to fire frequency, seasonality, and ignitions \(umass.edu\)](#)

Effect of repeated burning on plant and soil carbon and nitrogen in cheatgrass (*Bromus tectorum*) dominated ecosystems, Rachel Jones, Jeanne C. Chambers, Dale W. Johnson, Robert R. Blank & David I. Board [Effect of repeated burning on plant and soil carbon and nitrogen in cheatgrass \(*Bromus tectorum*\) dominated ecosystems \(usda.gov\)](#)

Introduced annual grass increases regional fire activity across the arid western USA (1980-2009) [Introduced annual grass increases regional fire activity across the arid western USA \(19802009\) \(umass.edu\)](#)

Soil and Microbes

Moisture pulses, trace gas emissions and soil C and N in cheatgrass and native grass-dominated sagebrush-steppe in Wyoming, USA, U. Norton^{a,1}, A.R. Mosier^b, J.A. Morganc, J.D. Derner^a, L.J. Ingram^d, P.D. Stahld [doi:10.1016/j.soilbio.2007.12.021 \(usda.gov\)](#)

Short-term Effects of Indaziflam on Non-native Brome Grass (*Bromus spp.*), Biological Soil Crusts, and the Endangered Dwarf Bear Poppy (*Arctomecon humilis*), Tara B.B. Bishop^{1,*}, Alyson M. DeNittis², Sydney O.H. McGovern² [Short-term Effects of Indaziflam on Non-Native Brome Grass \(*Bromus spp.*\), Biological Soil Crusts, and the Endangered Dwarf Bear Poppy \(*Arctomecon humilis*\)☆ \(bioone.org\)](#)

No evidence of three herbicides and one surfactant impacting biological soil crusts, Mandy L. Slate, Rebecca A. Durham, Chuck Casper, Daniel Mummey, Philip Ramsey, Dean E. Pearson [No evidence of three herbicides and one surfactant impacting biological soil crusts \(usda.gov\)](#)

Soil morphology and organic matter dynamics under cheatgrass and sagebrush-steppe plant communities, Jay B Norton^a, Thomas A Monaco^b, Jeanette M Norton^a, Douglas A Johnson^b, Thomas A Jones [doi:10.1016/S0140-1963\(03\)00104-6 \(usda.gov\)](#)

Effects of Soil Conditioning by *Bromus tectorum* on Decomposition Rates of Plant Litter and Soil Properties, Hayley Lyon [Undergraduate Honors Thesis | Effects of Soil Conditioning by *Bromus tectorum* on Decomposition Rates of Plant Litter and Soil Properties | ID: 4j03d037c | CU Scholar \(colorado.edu\)](#)

Effects of Short-term Soil Conditioning by Cheatgrass and Western Wheatgrass, Janet Prevey, Tim Seastedt [\(PDF\) Effects of Short-term Soil Conditioning by Cheatgrass and Western Wheatgrass \(researchgate.net\)](#)

Native Flora and Fauna

Effects of precipitation change and neighboring plants on population dynamics of *Bromus tectorum*, Janet Prevey, Tim Seastedt [\(PDF\) Effects of precipitation change and neighboring plants on population dynamics of *Bromus tectorum* \(researchgate.net\)](#)

Water as the key to sagebrush restoration success in cheatgrass-invaded ecosystems, N.B. Kainrath, C.A. Gehring, P. Dijkstra, C. Updike ([PDF](#)) [Water as the key to sagebrush restoration success in cheatgrass-invaded ecosystems \(researchgate.net\)](#)

Pollinator-friendly flora in rangelands following the control of cheatgrass (*Bromus tectorum*): a case study <https://doi.org/10.1017/inp.2021.33>, <https://www.cambridge.org/core/journals/invasive-plant-science-and-management/article/pollinatorfriendly-flora-in-rangelands-following-control-of-cheatgrass-bromus-tectorum-a-case-study/9ECD673CC631B7E823B65A7E05FDD22E>

Negative Effects of an Exotic Grass Invasion on Small-Mammal Communities. Freeman ED, Shart TR, Knight RN, Slater SJ, et al. (2014)<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0108843>