

Matthew D. Hurteau

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Education

Ph.D. – Ecology, University of California, Davis, June 2007.

Dissertation: The effects of climate change and nitrogen deposition on the Sierran mixed-conifer understory plant community.

B.S. – Forestry, Northern Arizona University, Flagstaff, AZ, May 2001. *Cum Laude*.

Professional Experience

Associate Professor of Biology, University of New Mexico, Department of Biology, 2017-present.

Assistant Professor of Biology, University of New Mexico, Department of Biology, 2015-2017.

Adjunct Faculty, Pennsylvania State University, Department of Ecosystem Science and Management, 2015-2017.

Assistant Professor of Forest Resources, Pennsylvania State University, Department of Ecosystem Science and Management, 2011-2015.

Adjunct Faculty, Northern Arizona University, Department of Biological Sciences, 2011-present.

Visiting Assistant Professor, Northern Arizona University, School of Earth Sciences and Environmental Sustainability, 2010-2011.

Post-doctoral research associate, Northern Arizona University, National Institute for Climatic Change Research, Western Region, 2007-2010.

Grants

* indicates student/postdoc

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| 2019-2021 | CAL FIRE, The carbon consequences of catchment-scale prescribed burning, PI: Matthew Hurteau, co-PIs: Malcolm North, Harold Zald, Brandon Collins, \$396,089 |
| 2017-2020 | USDA NIFA Carbon Cycle Science, Quantifying the effects of species range shifts and management of post-fire recovery on regional carbon dynamics in a changing climate, PI: Matthew Hurteau, co-PIs: Daniel Krofcheck, Marcy Litvak, Scott Collins, \$850,000 |
| 2017-2018 | The Nature Conservancy, Santa Fe firehed simulation experiment, PI: Matthew |

- Hurteau, co-PI: Daniel Krofcheck, \$45,000
- 2016-2020 CAL FIRE, Quantifying the carbon costs and benefits of maintaining fuel treatment effectiveness, PI: Matthew Hurteau, co-PIs: Harold Zald, Malcolm North, Robert York, \$454,983
- 2016-2019 Joint Fire Science Program, Quantifying the effects of post-fire decision-making on forest recovery in a severely burned southwestern landscape, PI: Matthew Hurteau, co-PIs: Craig Allen, Dan Krofcheck*, \$326,128.
- 2015-2018 Joint Fire Science Program, Changes in forest vegetation and fuel conditions 15 years after prescribed fire, PI: Malcolm North, co-PIs: Brandon Collins, Harold Zald, Matthew Hurteau, \$386,087
- 2014-2017 Joint Fire Science Program, Outcomes prioritization on fuel treatment placement in extreme fire weather in three CFLRP landscapes, PI: E. Louise Loudermilk, co-PIs: Matthew Hurteau, Robert Scheller, \$350,343
- 2014-2015 Penn State Institutes for Energy and the Environment Seed Grant Program, Summer temperature variability, drought and the Atlas Cedar: a tree-ring $\delta^{13}\text{C}$ based multi-centennial record in Northwestern Africa, PI: Soumaya Belmcheri, co-PIs: Matthew Hurteau, Lee Newsome, \$24,971
- 2013-2014 Joint Fire Science Program, Graduate Research Innovation: Quantifying the effect of fuel size on charcoal formation during prescribed fire, PI: Morgan Wiechmann*, co-PIs: Matthew Hurteau, Jason Kaye, \$23,612
- 2012-2016 USDA NIFA, Projecting climate change mitigation and adaptation in fire-prone forests under future climate change, PI: Matthew Hurteau, co-PIs: Anthony Westerling, Tamara Wall, Christine Wiedinmyer, \$749,335
- 2012-2013 USDA Forest Service, Southern Nevada Public Land Management Act, Drought Stress and bark beetle outbreaks in the future forest: extending an existing model to inform climate change adaptation, PI: Robert Scheller and Louise Loudermilk, co-PIs: Matthew Hurteau, Peter Weisberg, \$127,013
- 2011-2015 Strategic Environmental Research and Development Program: Modeling the carbon implications of ecologically-based forest management, PI: Matthew Hurteau, co-PIs: George Koch, Bruce Hungate, Malcolm North, \$1,067,057.
- 2011-2013 Joint Fire Science Program: Fuels treatment effects on forest carbon and insect induced mortality 10-years after treatments, PI: Matthew Hurteau, co-PIs: George Koch, Malcolm North, David Rizzo, \$314,489
- 2010-2013 NSF, SMP: A Professional Science Master's in Climate Science and Solutions for Northern Arizona University, PI: George Koch, co-PIs: Thomas Acker, Bruce Hungate, Matthew Hurteau, Darrell Kaufman, \$698,733
- 2010-2013 NASA Global Climate Change Education: Research Experiences, Teaching and Learning, Undergraduate research experiences in global climate change at Northern Arizona University, PI: George Koch, co-PIs: Bruce Hungate, Matthew Hurteau, \$387,580
- 2008-2011 USDA Forest Service, Southern Nevada Public Land Management Act, Modeling the influence of management actions on fire risk and spread under future climatic conditions, PI: Matthew Hurteau, co-PIs: Malcolm North and George Koch, \$157,820

- 2008-2011 USDA NRI Managed Ecosystems, Carbon and water balance implications of restoration thinning, PI: Thomas Kolb, co-PIs: George Koch, Alex Finkral, Mario Montes-Helu, Matthew Hurteau, Stephen Dewhurst, Stephen Hart, \$399,904
- 2010 NSF, A rapid assessment of post-fire changes in biophysical variables, carbon stocks, and soil microbial processes in the tallest angiosperm forest, PI: George Koch, co-PIs: Matthew Hurteau, Bruce Hungate, \$76,656
- 2008-2009 USDA Forest Service, Thinning and prescribed fire effects on carbon pools in Sierran mixed-conifer forests, 2008, PIs: Matthew Hurteau and Malcolm North, co-PI: Sean Parks, \$75,000
- 2008 Environmental Research, Development and Education for the New Economy, TRIF, The economic value of goods and services from managed forest ecosystems in the southwestern US: Developing a verification methodology for forest carbon sequestration within forest restoration projects, PI: Alex Finkral, co-PIs: Ching-Hsun Huang, Mario Montes-Helu, JJ Smith, Tom Kolb, George Koch, Matthew Hurteau, Deborah Spalding, \$87,780

Peer-Reviewed Publications

* indicates student/postdoc author

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- *Krofcheck, D.J., C.C. *Remy, A.R. *Keyser, **M.D. Hurteau**. In press. Optimizing forest management stabilizes carbon under projected climate and wildfire. *Journal of Geophysical Research - Biogeosciences*
- *Krofcheck, D.J., M.E. Litvak, **M.D. Hurteau**. In press. Allometric relationships for *Quercus gambelii* and *Robinia neomexicana* for biomass estimation following disturbance. *Ecosphere*
- *Remy, C.C., D.J. *Krofcheck, A.R. *Keyser, M.E. Litvak, S.L. Collins, **M.D. Hurteau**. 2019. Integrating species-specific information in models improves regional projections under climate change. *Geophysical Research Letters* 45:6554-6562.
- Hessburg, P.F., C.L. Miller, N.A. Povak, A.H. Taylor, P.E. Higuera, S.J. Prichard, M.P. North, B.M. Collins, **M.D. Hurteau**, A.J. Larson, C.D. Allen, S.L. Stephens, H.R. Huerta, C.S. Rumann, L.D. Daniels, Z. Gedalof, R.W. Gray, V.R. Kane, D.J. Churchill, R.K. Hagmann, T.A. Spies, S.A. Parks, C.A. Cansler, R.T. Belote, T.T. Veblen, M.A. Battaglia, C. Hoffman, C.N. Skinner, H.D. Safford. 2019. Climate, environment, and disturbance history govern resilience of western North American forests. *Frontiers in Ecology and Evolution* 7:239.
- Hurteau, M.D.**, M.P. North, G.W. Koch, B.A. Hungate. 2019. Opinion: Managing for disturbance stabilizes forest carbon. *Proceedings of the National Academy of Sciences* 116:10193-10195.
- *Krofcheck, D.J., E.L. Loudermilk, J.K. Hiers, R.M. Scheller, **M.D. Hurteau**. 2019. The effects of management on long-term carbon stability in a southeastern US forest matrix under extreme fire weather. *Ecosphere* 10:e02631.
- Hurteau, M.D.**, S. Liang*, A.L. Westerling, C. Wiedinmyer. 2019. Vegetation-fire feedback reduces area burned under climate change. *Scientific Reports* 9:2838.

- Fargione, JE, S Bassett, T Boucher, SD Bridgham, RT Conant, SC Cook-Patton, PW Ellis, A Falucci, J Fourquerean, T Gopalakrishna, H Gu, B Henderson, **MD Hurteau**, KD Kroeger, T Kroeger, TJ Lark, SM Leavitt, G Lomax, RI McDonald, PJ Megonigal, DA Miteva, CJ Richardson, J Sanderman, D Shoch, SA Spawn, JW Veldman, CA Williams, PB Woodbury, C Zganjar, M Baranski, P Elias, RA Houghton, E Landis, E McGlynn, WH Schlesinger, JV Siikamaki, AE Sutton-Grier, BW Griscom. 2018. Natural climate solutions for the United States. *Science Advances* 4:eaat1869
- *Goodwin, M.J., M.P. North, H.S.J. Zald, **M.D. Hurteau**. 2018. The 15-year post-treatment response of a mixed-conifer understory plant community to thinning and burning treatments. *Forest Ecology and Management* 429:617-624.
- *Swanteson-Franz, R.J., D.J. Krofcheck*, **M.D. Hurteau**. 2018. Quantifying forest carbon dynamics as a function of tree species composition and management under projected climate. *Ecosphere* 9:e02191.
- *Liang, S., **M.D. Hurteau**, A.L. Westerling. 2018. Large-scale restoration increases carbon stability under projected climate and wildfire. *Frontiers in Ecology and the Environment* 16:207-212.
- *Krofcheck, D.J., **M.D. Hurteau**, R.M. Scheller, E.L. Loudermilk. 2018. Prioritizing forest fuels treatments based on the probability of high-severity fire restores adaptive capacity in Sierran forests. *Global Change Biology* 24:729-737.
- Scheller, R.M., A.M. Kretchun, E.L. Loudermilk, **M.D. Hurteau**, P.J. Weisberg, C. Skinner. 2018. Interactions among management, species composition, bark beetles and climate change and the potential effects on forests of the Lake Tahoe Basin. *Ecosystems* 21:643-656.
- Maestrini, B., E.C. Alvey, **M.D. Hurteau**, H. Safford, J.R. Miesel. 2017. Fire severity alters the distribution of pyrogenic carbon stocks across ecosystem pools in a Californian mixed-conifer forest. *Journal of Geophysical Research – Biogeosciences*, 122, doi: 10.1002/2017/JG003832
- *Liang, S., **M.D. Hurteau**, A.L. Westerling. 2017. Potential decline in carbon carrying capacity under projected climate-wildfire interactions in the Sierra Nevada. *Scientific Reports* 7:2420.
- Hurteau, M.D.** 2017. Quantifying the carbon balance of forest restoration and wildfire under projected climate in the fire-prone southwestern US. *PLoS ONE*, 12(1):e0169275.
- *Krofcheck, D.J., **M.D. Hurteau**, R.M. Scheller, E.L. Loudermilk. 2017. Restoring surface fire stabilizes forest carbon under extreme fire weather in the Sierra Nevada. *Ecosphere*, 8(1):e01663.10.1002/ecs2.1663.
- *Liang, S., **M.D. Hurteau**, A.L. Westerling. 2017. Response of Sierra Nevada forests to projected climate-wildfire interactions. *Global Change Biology*, 23:2016-2030.
- Kretchun, A.M., E.L. Loudermilk, R.M. Scheller, **M.D. Hurteau**, S. Belmecheri. 2016. Climate and bark beetle effects on forest productivity: linking dendroecology with forest landscape modeling. *Canadian Journal of Forest Research*, 46:1026-1034.

- Hurteau, M.D.**, S. Liang*, K.L. Martin*, M.P. North, G.W. Koch, B.A. Hungate. 2016. Restoring forest structure and process stabilizes forest carbon in a wildfire-prone southwestern ponderosa pine forests. *Ecological Applications*, 26:382-391.
- *Laflower, D.M., **M.D. Hurteau**, G.W. Koch, M.P. North, B.A. Hungate. 2016. Climate-driven changes in forest succession and the influence of management on forest carbon dynamics in the Puget Lowlands of Washington State, USA. *Forest Ecology and Management*, 362:194-204.
- Buchholz, T., **M.D. Hurteau**, J. Gunn, D. Saah. 2016. A global meta-analysis of forest bioenergy greenhouse gas emission accounting studies. *Global Change Biology – Bioenergy*, 8:281-289.
- *Wiechmann, M.L., **M.D. Hurteau**, J.P. Kaye, J.R. Miesel. 2015. Macro-particle charcoal C content following prescribed burning in a mixed-conifer forest, Sierra Nevada, California. *PLOS ONE*, 10(8):e0135014.
- *Wiechmann, M.L., **M.D. Hurteau**, M.P. North, G.W. Koch, L. Jerabkova. 2015. The carbon balance of reducing wildfire risk and restoring process: an analysis of 10-year post-treatment carbon dynamics in mixed-conifer forest. *Climatic Change*, 132:709-719.
- Addington, R.N., S.J. Hudson, J.K. Hiers, **M.D. Hurteau**, T.F. Hutcherson, G. Matusick, J.M. Parker. 2015. Relationships among wildfire, prescribed fire, and drought in a fire-prone landscape in the southeastern United States. *International Journal of Wildland Fire*, 24:778-783.
- *Martin, K.L., **M.D. Hurteau**, B.A. Hungate, G.W. Koch, M.P. North. 2015. Carbon tradeoffs of restoration and provision of endangered species habitat in a fire-maintained forest. *Ecosystems*, 18:76-88.
- Hurteau, M.D.**, A.L. Westerling, C. Wiedinmyer, B.P. Bryant. 2014. Projected effects of climate and development on California wildfire emissions through 2100. *Environmental Science and Technology*, 48:2298-2304.
- Earles, J.M., M.P. North, **M.D. Hurteau**. 2014. Carbon storage and resilience of fire-dependent forests under future wildfire and drought. *Ecological Applications*, 24:732-740.
- *Dangal, S.R.S., B.S. Felzer, **M.D. Hurteau**. 2014. Effects of agriculture and timber harvest on carbon sequestration in the Eastern United States. *Journal of Geophysical Research – Biogeoscience*, 119:35-54.
- Hurteau, M.D.**, J.B. Bradford, P.Z. Fule, A.H. Taylor, K.L. Martin*. 2014. Climate change, fire management, and ecological services in the southwestern US. Special Issue: *Forest Ecology and Management*, 327:280-289.
- Hurteau, M.D.**, T.A. Robards, D. Stevens, D. Saah, M. North, G.W. Koch. 2014. Modeling climate and fuel reduction impacts on forest carbon stocks. *Forest Ecology and Management*, 315:30-42.

- Kerhoulas, L.P., T.E. Kolb, **M.D. Hurteau**, G.W. Koch. 2013. Managing for climate change adaptation in forests: a case study from the U.S. Southwest. *Journal of Applied Ecology*, 50:1311-1320.
- Moritz, M.A., **M.D. Hurteau**, K.N. Suding, C.M. D'Antonio. 2013. "Bounded ranges of variation" as a framework for future conservation and fire management. *Annals of the New York Academy of Sciences, The Year in Ecology and Conservation Biology*, 1286:92-107
- Hurteau, M.D.**, B.A. Hungate, G.W. Koch, M.P. North, G.R. Smith. 2013. Aligning ecology and markets in the forest carbon cycle. *Frontiers in Ecology and the Environment*, 11:37-42.
- *Waddell, C.J., **M.D. Hurteau**, D. Huntzinger. 2011. Product carbon footprinting: a proposed framework to increase confidence, reduce costs, and incorporate profit incentive. *Carbon Management*, 2:645-657.
- North, M. and **M. Hurteau**. 2011. High-severity wildfire effects on carbon stocks and emissions in fuels treated and untreated forest. *Forest Ecology and Management*, 261:1115-1120.
- Wu, T., Y-S. Kim, **M.D. Hurteau**. 2011. Cutting trees to save forests: using economic incentives to overcome barriers to forest restoration. *Restoration Ecology*, 19:441-445.
- Hurteau, M.D.** and M.L. Brooks. 2011. Short- and long-term effects of fire on carbon in US dry temperate forest systems. *BioScience*, 61:139-146.
- Hurteau, M.D.**, M.T. Stoddard, P.Z. Fulé. 2011. The carbon costs of mitigating high-severity wildfire in southwestern ponderosa pine. *Global Change Biology*, 17:1516-1521.
- Hurteau, M.D.** and C. Wiedinmyer. 2010. Response to comment on "Prescribed fire as a means of reducing forest carbon emissions in the Western United States. *Environmental Science and Technology*, 44:6521
- Hurteau, M.D.** and M. North. 2010. Carbon recovery rates following different wildfire risk mitigation treatments. *Forest Ecology and Management*, 260:930-937.
- Wiedinmyer, C. and **M.D. Hurteau**. 2010. Prescribed fire as a means for reducing forest carbon emissions in the western US. *Environmental Science and Technology*, 44:1926-1932.
- Hurteau, M.** and M. North. 2009. Fuel Treatment effects on tree-based carbon storage and emissions under modeled wildfire scenarios. *Frontiers in Ecology and the Environment*, 7:409-414. (Featured on front cover, Beyond the Frontier Podcast)
- Hurteau, M.**, M. North, T. Foin. 2009. Modeling the influence of precipitation and nitrogen deposition on forest understory fuel connectivity in Sierra Nevada mixed-conifer forest. *Ecological Modelling* 220:2460-2468.
- Mignone, B.K., **M.D. Hurteau**, Y. Chen, B. Sohngen. 2009. Carbon offsets, reversal risk and US climate policy. *Carbon Balance and Management* 4:3.
- Hurteau, M.D.**, B.A. Hungate, G.W. Koch. 2009. Accounting for risk in valuing forest carbon offsets. *Carbon Balance and Management* 4:1.

- North, M., **M. Hurteau**, J. Innes. 2009. Fire suppression and fuels treatment effects on mixed-conifer carbon stocks and emissions. *Ecological Applications* 19:1385-1396.
- Hurteau, M.** and M. North. 2009. Response of *Arnica dealbata* to climate change, nitrogen deposition, and fire. *Plant Ecology*, 202:191-194.
- Hurteau, M.D.**, G.W. Koch, B.A. Hungate. 2008. Carbon protection and fire risk reduction: toward a full accounting of forest carbon offsets. *Frontiers in Ecology and the Environment*, 6:493-498.
- Hurteau, M.** and M. North. 2008. Forest understory response to climate change, nitrogen, and fire in Sierra Nevada mixed-conifer. *Global Change Biology*, 14:1543-1552.
- Hurteau, M.**, H. Zald, M. North. 2007. Species-specific response to climate reconstruction in upper-elevation mixed-conifer forests of the western Sierra Nevada, California. *Canadian Journal of Forest Research*, 37:1681-1691.
- North, M., **M. Hurteau**, R. Fiegenger, M. Barbour. 2005. Influence of fire and El Niño on tree recruitment varies by species in Sierran mixed conifer. *Forest Science*, 51:187-197.
- Hurteau, M.**, M. Stoddard, B. Oberhardt. 2001. Sampling method captures vegetation and wildlife data in sagebrush-grassland ecosystem (Arizona). *Ecological Restoration* 19:267-268.

Other Publications

- Hurteau, M.D. 2013. (Invited) Effects of wildland fire management on forest carbon stores. In *Land use and the carbon cycle: advances in integrated science, management, and policy*. Eds, D.G. Brown, D.T. Robinson, N.H.F. French, and B.C. Reed. Cambridge University Press, Cambridge UK.
- Mitchell, R.J., K.L. Clark, M.D. Hurteau, B.J. Palik, M.E. Rocca, M.C. Wimberly, J.B. Bradford, P.M. Brown, J.J. Charney, B. Clinton, P.Z. Fule, P.C. Goebel, R.S.H. Kennedy, Y. Liu, L.H. MacDonald, J. J. O'Brien, H. Renninger, R. Scheller, N. Skowronski, G. Starr, A.H. Taylor. 2012. Fire-Climatic Interactions: A Technical Input Report for the National Climate Assessment.
- Magi, B., M. Coughlan, A. Edwards, M. Hurteau, A. Petty, F. Seijo, C. Wiedinmyer. 2008. Cultural uses and impacts of fire: past, present and future. Meeting Report, *Eos*, 89:380.
- Alcoze, T. and M. Hurteau. 2001. (Invited) Implementing the archeo-environmental reconstruction technique: rediscovering the historic ground layer of three plant communities in the greater Grand Canyon Region. In *The historical ecology handbook*. Eds, Dave Egan and Evelyn Howell. Island Press, Covelo, CA.

Teaching Experience

BIOL 419/519 Science writing, University of New Mexico, Fall 2017, 2018
BIOL 419/519 Science-policy, University of New Mexico, Fall 2016, 2018
BIOL 203 Evolution and Ecology, University of New Mexico, Fall 2015, 2017, 2019
FOR 200 Professional Careers in Forest Resources, Pennsylvania State University, University Park, PA, Fall 2012, 2013
FOR 201GN Global Change and Ecosystems, General Education – Natural Science, Pennsylvania State University, University Park, PA, Fall semester beginning 2012
FOR 597A Science-Policy Interface, Pennsylvania State University, University Park, PA, Spring 2012, Fall 2013
FOR 597B Science as a Process, Pennsylvania State University, University Park, PA, Fall 2012
ECLGY 515 Advances in Ecology, Pennsylvania State University, University Park, PA, Fall 2014
ENV 591 The Science and Management of Greenhouse Gases, Northern Arizona University, Flagstaff, AZ, Spring 2011
BIO 326 Ecology, Northern Arizona University, Flagstaff, AZ, Fall 2007
NR 330 Native California Tree and Shrub Identification, American River College, Sacramento, CA, Fall 2003-2005

Invited Seminars

School of Forestry, Northern Arizona University, 24 Oct 2018
Schat Seminar, Department of Forestry and Wildland Resources, California State University Humboldt, Mar 2017
Department of Geography, University of New Mexico, Oct 2015
School of Forest Resources Seminar, Pennsylvania State University, Apr 2012
IGDP Ecology Seminar, Pennsylvania State University, Feb 2012
Terrestrial Biogeoscience Seminar, Boston University, Oct 2011
Campus Seminar, The Evergreen State College, Feb 2011
Biology Seminar, Southern Utah University, Sept 2010
Environmental Systems Seminar, University of California, Merced, Sept 2009
School of Forestry, Northern Arizona University, Feb 2009
Biological Sciences Seminar, Northern Arizona University, Oct 2008

Recent Presentations and Posters

* indicates student/postdoc

Xu, Q., A.L. Westerling, M.D. Hurteau, C. Wiedinmyer, K. Schnier, J.W. Baldwin. Wildfire PM2.5 emissions and respiratory health outcomes in California. 2018 Fall Meeting of the American Geophysical Union.
*Goodwin, M.J., H. Zald, M. North, M.D. Hurteau. (invited). The carbon dynamics of thinning and repeated burning to restore surface fire in a mixed-conifer forest. 2019 meeting of the Ecological Society of America.
Zald, H., M.J. Goodwin, M. North, M.D. Hurteau, A.N. Gray. (invited). Tree regeneration and understory vegetation responses to second entry prescribed burns in a Sierra Nevada

- mixed conifer forest. 2019 meeting of the Ecological Society of America.
- Hurteau, M.D. (invited). Quantifying abiotic and biotic controls on seedling survival in a post-burn environment. 2019 meeting of the US International Association of Landscape Ecology.
- Xu, Q., A.L. Westerling, C. Wiedinmyer, M.D. Hurteau, C. Ade. Estimating wildfire emissions in California. 2018 Fall Meeting of the American Geophysical Union.
- Solander, K.C., T.M. Holland, M.D. Hurteau, N.G. McDowell, Chonggang Xu, R.R. Lin. The expansion of the wildfire season in the western US as seen through FIRETEC. 2018 Fall Meeting of the American Geophysical Union.
- *Krofcheck, D.J., M.D. Hurteau, H. Zald. An extensible framework for small unmanned aerial system sensor integration with lidar and satellite remote sensing. ForestSat 2018.
- *Krofcheck, D.J., E.L. Loudermilk, R.M. Scheller, M.D. Hurteau. Southeastern pine forest fire behavior under future climate is influenced by more frequent, large fires in swampland ecosystems. 2018 meeting of the Ecological Society of America.
- Hurteau, M.D., S. Liang*, A.L. Westerling, C. Wiedinmyer. Accounting for prior wildfires decreases area burned under projected climate in the Sierra Nevada. 2018 meeting of the Ecological Society of America.
- Hurteau, M.D. (Keynote) Wildfire and carbon management. Wildfire and Climate Change in the Kootenays Conference, June 26-28, 2018, Nelson, British Columbia.
- Hurteau, M.D. (Invited) Using management to increase carbon stability in fire-prone forests. Forestry for resilience, carbon storage, and wood products in a changing world Conference, June 19-20, 2018, Olympia, Washington.
- Hurteau, M.D. (Invited) Climate- and vegetation-driven changes in area burned in the Sierra Nevada. Fire Continuum Conference, 21-24 May 2018, Missoula, Montana.
- Hurteau, M.D. (Invited) The role of managed fire for stabilizing forest carbon under projected climate. 7th International Fire Ecology and Management Congress, Orlando Florida.
- Swantesson-Franz, R.*, D.J. Krofcheck, M.D. Hurteau. Quantifying forest carbon dynamics as a function of tree species composition under projected climate. 2017 meeting of the Ecological Society of America.
- Krofcheck, D.J.*, E.L. Loudermilk, R.M. Scheller, M.D. Hurteau. Optimizing fuels treatment in a frequent fire adapted ecosystem in the Sierra Nevada increases landscape carbon stability in future climates. 2017 meeting of the Ecological Society of America.
- Zald, H., A.N. Gray, M.P. North, M.D. Hurteau. Long-term tree regeneration responses following thinning and prescribed burning in a Sierra Nevada mixed-conifer forest California, USA. 2017 meeting of the Ecological Society of America.
- Cassell, B.A., R.M. Scheller, E.L. Loudermilk, M.D. Hurteau. Forest management and wildfire under alternate climate futures in eastern Oregon. 2017 meeting of the Ecological Society of America.
- Hurteau, M.D. (Invited) Don't forget your 37 pieces of flair: Telling a story with your data. 2017 meeting of the Ecological Society of America.

Awards

Edward D. Bellis Award for outstanding contribution and dedication to educating and training graduate students in the IGDP in Ecology at Penn State, April 2014

Gamma Sigma Delta – Honor Society of Agriculture, 2013

The Research Ambassador Program, Fellow February 2011

Analysis, Integration and Modeling of the Earth System (AIMES), Young Scholar Network, Scholar July 2008

Dissertations Initiative for the Advancement of Climate Change Research (DISCCRS), Scholar November 2008

Xi Sigma Pi – Forestry Honors Society, 2000

Selected Outreach and Media Coverage

The Guardian – [What Trump gets wrong about wildfires, by a fire scientist](#), Nov 13, 2018

Invited speaker – Sandia National Forest Collaborative field trip, Aug 6, 2019

Invited speaker – Burned Area Learning Network field trip, Apr 23, 2019

Invited panelist – Finding common ground regarding the role of wildfire in northern New Mexico Landscapes, Santa Fe, NM, Apr 3, 2019

Invited speaker, Global Climate Action Summit, San Francisco, CA, Sept 12, 2018

Climate, wildfire, and management influences on forest carbon carrying capacity, Dinkey Creek Collaborative Restoration Project, May 18, 2017

Invited speaker, California Fire Science Consortium, May 2, 2017

Keynote speaker, Sierra Nevada Watershed Improvement Program Summit: The Forest Carbon Story, Mar 3, 2016, Sacramento, CA

Invited speaker, USDA Pacific Northwest Climate Hub, Adaptation and Mitigation for Working Forestlands: Challenges and Solutions in the Face of Climate Change, Dec 2, 2015, Corvallis, OR

Invited speaker, Bureau of Indian Affairs, Southwest Regional Foresters Meeting, Oct 21, 2015, Albuquerque, NM

The Conversation – [We set the fuel for the Rim fire, climate change lit the match](#), August 30, 2013

The Nature Conservancy, Fire Learning Network: Fire, Carbon and Climate Change Adaptation Symposium Nov 9, 2010, Rockport, TX, Invited Expert/Panelist

The climate mitigation benefit of fire prone forests, Presented to the Arizona Governor's Forest Health Council, April 16, 2009

Climate change and forest management, Presented at the 2008 World Wildlife Fund Climate Camp, San Francisco, CA, February 25, 2008.

Selected Research and Policy Briefs:

- [Overview](#)
- [Hotter Droughts: A Challenge for the Southwest](#)
- [Projected climate-wildfire effects on Sierra Nevada Forests](#)
- [Restoring surface fire stabilizes carbon under extreme fire weather](#)
- [Efficacy of forest treatments in ponderosa pine under projected climate](#)
- [Projected climate and wildfire decrease forest carbon storage](#)

Imagine Magazine – [Why more trees might not mean less carbon dioxide](#) September/October 2009

Media Coverage: Grist (9/19/2019), Bloomberg (8/13/2019), Grist (2/14/2019), Backpacker Magazine (1/2019), WNYC The Brian Lehrer Show (11/20/2018), BBC Outside Source (11/19/2018), Euronews NOW (11/19/2018), Lithuanian Public Radio (11/19/2018), KQED Forum (10/18/2018), NMPBS In Focus (8/10/2018), NPR All Things Considered (8/7/2018), CBC (6/26/2018), CBSN (12/29/2017), KOAT (10/17/2017), Real News (10/14/2017), Vox (10/16/2017), Eos (9/11/2017), Nova Next (10/30/2015), ClimateWire (1/30/2014), Wired (8/26/2013), Mother Jones (6/13/2013), Aspen Public Radio (7/6/2012), Arizona Republic (7/5/2011), Science Live (6/30/2011), Arizona Daily Sun (6/25/2011), MSNBC Cosmic Log (6/10/2011), Ecosystem Marketplace (6/3/2011), KNAU (4/4/2011), ABC 15 News (9/22/2010), The Daily Courier (9/17/2010), The Guardian (7/28/2010), KNAU (7/7/2010), Land Letter (4/15/2010), USA Today (3/31/2010), Arizona Daily Sun (3/24/2010), Discovery News (3/23/2010), National Public Radio (3/21/2010), ScienceNow (3/18/2010), New York Times (3/18/2010), Science Daily (3/18/2010), Boulder Daily Camera (3/19/2010), Oregonian (12/4/2009), Energy and Environment News (12/1/2009), National Public Radio (10/23/2009), Land Letter (12/4/2008), ClimateWire (9/17/2009), Wildland Fire: Lessons Learned Center, Advances in Fire Practice, Arizona Daily Sun (5/4/2009)

Advisees

Undergraduate Researchers: Brian Crooks (BS May 2014), Celine Colbert (BS May 2015), Brian Wegman (BA May 2016), Rachel Swanteson-Franz (BS Dec 2017)

Postdoctoral Scholars: Katherine Martin (2012-2014), Christopher Fernandez (2014), Dan Krofcheck (2015-2019), Alisa Keyser (current), Cécile Remy (current)

PhD Students: Shuang Liang (May 2017), Joseph Crockett (current), Kevin Willson (current)

MS Students: Morgan Wiechmann (August 2014), Danelle Laflower (August 2015)

Graduate Thesis Committees: Diana Macias (Ph.D., current, UNM), Gabrielle Ayres (Ph.D., current, NAU), Tanner Shea (M.S., current, UNM), Lauren Bansbach (M.S., May 2019, UNM), Noah Silva (M.S., August 2017, UNM), Weile Chen (Ph.D., December 2016, Penn State), Sean

Cahoon (Ph.D., December 2015, Penn State), Chieh-Chung Yang (M.S., August 2014, Penn State), Andrea De Stefano (M.S., August 2014, Penn State), Katie Gaines (Ph.D., May 2015, Penn State), Lucy Mullin (Ph.D., May 2013, NAU), Vincent Mariola (M.A., May 2010, NAU), Andrea Nickoloff (M.S., October 2013, Penn State), Tibor Vegh (M.S., August 2011, NAU), Casey Weathers (M.S., October 2013, Penn State)

Professional Activities

Extramural Service and Activities:

- Associate Editor, *Frontiers in Ecology and the Environment*, 2012-present
- Ecological Society of America, Rapid Response Team, 2012-present
 - Meeting with lawmakers on climate change and wildfire, Washington, DC, Sept 19, 2013
 - Meeting with lawmakers for Climate Science Day, Washington, DC, Feb 10, 2016
 - Meeting with lawmakers for Climate Science Day, Washington, DC, Jan 31, 2018
 - Meeting with lawmakers for Climate Science Day, Washington, DC, Mar 13, 2019
- External reviewer for a proposed University of California Master of Science in Environmental Policy and Management, Fall 2015. Review requested by the Coordinating Committee on Graduate Affairs, a standing committee of the UC System wide Academic Senate
- SESYNC workshop on Salience and Fire, Annapolis, MD (July 2015)
- Science Advisory Board, CALFIRE Forest health treatments and carbon dynamics policy paper, 2015-2017
- Science Advisory Board, Placer County Greenhouse Gas Offset Protocol Development, 2015-2017
- Science Advisory Board, Federal Forest Carbon Coalition, 2014-present
- Advisory Board, Professional Science Master's Program in Climate Science and Solutions, Northern Arizona University, 2011-2018
- Understanding climate, disturbance, and forest dynamics from regional to individual tree scales, Ecological Society of America Annual meeting 2014, Organizer and Moderator
- National Institute for Mathematical and Biological Synthesis, Knoxville, TN, investigative workshop on Disturbance Regimes and Climate-Carbon Feedback (Feb 2012)
- Carbon Dynamics in Fire-prone Forests, American Geophysical Union Fall Meeting 2010, Co-convener
- Journal Reviews:
Annals of Forest Science, Biogeosciences, CAB Reviews, Canadian Journal of Forest

Research, Carbon Balance and Management, Carbon Management, Diversity, Earth's Future, Ecological Applications, Ecological Modelling, Ecology Letters, Ecosphere, Ecosystems, Environmental Management, Environmental Research Letters, Eos, Fire regimes, vegetation change and carbon dynamics In *Flammable Australia*, Fire Ecology, Forests, Forest Ecology and Management, Forest Science, Frontiers in Ecology and the Environment, Geophysical Research Letters, Global Change Biology, International Journal of Wildland Fire, Issues in Ecology, JGR-Biogeoscience, Journal of Forestry Research, Journal of Range Ecology and Management, Landscape Ecology, Nature, Nature Climate Change, Nature Communications, Nature Geoscience, PLOS ONE, PNAS, Western Journal of Applied Forestry

- Grant and Award Reviews:

DISCCRS (2009, 2013), DOE (2013), Joint Fire Science Program (2014, 2016, 2017), NSF (2010 ad hoc, 2013 ad hoc, 2015 ad hoc, 2018, 2019 ad hoc), NSF Graduate Research Fellowship (2012, 2013), NASA Carbon Cycle Science (2010), NASA NESSF (2017), NOAA (2010 ad hoc), Interagency (DOE, NASA, USDA) Carbon Cycle Science (2013)