BETHANY A. BRADLEY

Associate Professor
Department of Environmental Conservation
University of Massachusetts, Amherst
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Amherst, MA 01003

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PROFESSIONAL APPOINTMENTS

University of Massachusetts, Amherst, MA
- Associate Professor of Biogeography & Spatial Ecology — 2016 – present
- Assistant Professor of Biogeography & Spatial Ecology — 2010 – 2016

Amherst College, Amherst, MA
- Copeland Fellow, Department of Biology — 2009 – 2010

Princeton University, Woodrow Wilson School, Princeton, NJ
- Postdoctoral Fellow — 2006 – 2009

EDUCATION

Brown University, Providence, RI
- PhD, Geological Sciences (*Terrestrial Remote Sensing*) — 2006
- MSc, Geological Sciences — 2003

Pomona College, Claremont, CA
- BA, Geology — 2000

RESEARCH INTERESTS

I am interested in what the geographical distributions of species can tell us about their ecology, biology and interactions with anthropogenic changes. My research focuses on invasion ecology, global change ecology, and biological conservation using tools from biogeography and spatial ecology.

JOURNAL PUBLICATIONS

*Advisees are underlined - [#]Postdoc, *Graduate student, [†]Undergraduate student*

Cross, T.[*], J.T. Finn and **B.A. Bradley**, "*Frequency of invasive plant occurrence is not a suitable proxy for abundance in the Northeast US*", Ecosphere 8(5):e01800. 10.1002/ecs2.1800, 2017

Balch, J.K, **B.A. Bradley**, J.T. Abatzoglou, R.C. Nagy, E.J. Fusco[*] and A.L Mahood, "*Human-started fires expand the fire niche across the U.S.*", Proceedings of the National Academy of Sciences, 114(11): 2946-2951, doi: 10.1073/pnas.1617394114, 2017

Curtis, C.A.* and **B.A. Bradley**, "*Plant distribution data show broader climatic limits than physiological tolerance estimates*", PLoS One, 11(11): p.e0166407, 2016

Allen, J.M.[#] and **B.A. Bradley**, "*Out of the weeds? Reduced plant invasion risk with climate change*", Biological Conservation, 203:306-312, 2016

Fusco, E.J.*, J.T. Abatzoglou, J.K. Balch, J. Finn and **B.A. Bradley**, "*Quantifying the human influence on fire ignition across the western US*", Ecological Applications, 26(8): 2388-2399, 2016

Early, R., **B.A. Bradley**, J.S. Dukes, J.J. Lawler, J.D. Olden, D.M. Blumenthal, C.M. D'Antonio, P. Gonzalez, E.D. Grosholz, I. Ibañez, L.P. Miller, C.J.B. Sorte and A.J. Tatem, "*Global threats from invasive alien species in the twenty-first century and national response capacities*", Nature Communications, 7:12485, 2016

Abatzoglou, J., C. Kolden, J. Balch and **B. Bradley**, "*Controls on interannual variability in lightning-caused fire activity in the western US*", Environmental Research Letters, 11: 045005, 2016

Bocsi, T.†, J.M. Allen[#], J. Bellemare, M. Nishino, J. Kartesz and **B.A. Bradley**, *"Plants' native distributions do not reflect climatic tolerance"*, Diversity & Distributions, 22: 615-624, 2016

Bradley, B.A., "*Predicting abundance with presence-only models*", Landscape Ecology, 31(1):19-30, 2016

Spasojevic, M.J., C.A. Bahlai, **B.A. Bradley**, B.J. Butterfield, M-N Tuanmu, S. Sistla, R. Wiederholt and K.N. Suding, "*Scaling up the diversity-resilience relationship with remote sensing: large fires and productivity*", Global Change Biology, 22: 1421-1432, 2016

Bradley, B.A., R. Early, C.J.B. Sorte "*Space to invade? Comparative range infilling and potential range of invasive and native plants*", Global Ecology & Biogeography 24(3):348-359, 2015

Curtis, C.A.* and **B.A. Bradley**, "*Climate change increases risk of invasive plant abundance in the southwestern USA*", Invasive Plant Science and Management 8(3):341-352, 2015

He, K.; **B.A. Bradley**, A. Cord, D. Rocchini M-N. Tuanmu, S. Schmidtlein, W. Turner, M. Wegmann, N. Pettorelli, *"Will remote sensing shape the next generation of species distribution models?"*, Remote Sensing in Ecology & Conservation 1(1): 4-18, 2015

Bradley, B.A., *"Remote detection of invasive plants, a review of spectral, textural and phenological approaches"*, Biological Invasions 16(7):1411-1425, 2014

Chambers, J.C., **B.A. Bradley**, C.M. D'Antonio, J.B. Grace, S.P. Hardegree, R.F. Miller, and D.A. Pyke, *"Resilience to Disturbance and Resistance to Invasive Alien Grasses in Arid and Semi-arid Ecosystems: Lessons from the Cold Desert of Western North America*", Ecosystems, 17(2): 360-375, 2014

Estes, L.D., L-L. Paroz, **B.A. Bradley**, J.M.H. Green, D.G. Hole, S. Holness, G. Ziv, M.G. Oppenheimer, and D.S. Wilcove, "*Using changes in agricultural potential to quantify future climate-induced risk to conservation*", Conservation Biology 28(2): 427-437, 2014

Ibáñez, I., J.M. Diez, L.P. Miller, J.D. Olden, C.J.B. Sorte, D.M. Blumenthal, **B.A. Bradley**, C.M. D'Antonio, J.S. Dukes, R.I. Early, E.D. Grosholz, and J.J. Lawler, "*Integrated assessment of biological invasions*", Ecological Applications 24(1): 25-37, 2014

Vieira, R.*, J. Finn and **B.A. Bradley**, "*How much do distribution data influence models of invasion risk? A comparison of independent datasets in western Massachusetts*", Landscape Ecology 29: 1601-1612, 2014

Balch, J.K., **B.A. Bradley**, C.M. D'Antonio, and J. Gomez-Dans, "*Introduced annual grass increases regional fire activity across the arid western USA (1980-2009)*", Global Change Biology, 19(1): 173-183, 2013

Bradley, B.A., *"Distribution models of invasive plants over-estimate potential impact"*, Biological Invasions, 15(7): 1417-1429, 2013

Estes, L.D., **B.A. Bradley**, H. Beukes, W. Durand, D. Hole, M. Lau, M. Oppenheimer, R. Schulze, M.A. Tadross, and W. Turner, *"Comparing mechanistic and empirical models for assessing environmental suitability of a well understood crop species: Implications for ecological forecasting"*, Global Ecology & Biogeography, 22: 1007-1018, 2013

Estes, L.D., H. Beukes, **B.A. Bradley**, M. Oppenheimer, A. Ruane, R. Schulze, M. Tadross and D.S. Wilcove, *"Projected climate impacts to South African maize and wheat production in 2055: A comparison of empirical and mechanistic modeling approaches"*, Global Change Biology, 19(12): 3762-3774, 2013

Lehan, N.E.†, J.R. Murphy†, L.P. Thorburn† and **B.A. Bradley**, "*Accidental introductions are an important source of invasive plants in the continental U.S.*", American Journal of Botany, 10(7): 1287-1293, 2013

Bernazzani, P., **B.A. Bradley**, and J. Opperman, "*Integrating Climate Change into Habitat Conservation Plans under the U.S. Endangered Species Act"*, Environmental Management 49:1103-1114, 2012

Bradley, B.A., A.D. Olsson, O. Wang, B.G. Dickson, L. Pelech*, S.E. Sesnie, and L. Zachmann *"Detection vs. suitability: Dangers of biasing habitat suitability models for vegetation with remote sensing data"*, Ecological Modelling, 244: 57-64, 2012

Bradley, B.A., L.D. Estes, D.G. Hole, S. Holness, M. Oppenheimer, W.R. Turner, H. Beukes, R. Schulze, M.A. Tadross, and D.S. Wilcove, *"Predicting how human adaptation to climate change will affect ecological conservation: secondary impacts of shifting agriculture"*, Diversity & Distributions, 18: 425-437, 2012

Bradley, B.A., D.M. Blumenthal, R. Early, E.D. Grosholz, J.J. Lawler, L.P. Miller, C.J.B. Sorte, C.M. D'Antonio, J.M. Diez, J.S. Dukes, I. Ibáñez, and J.D. Olden, "*Global change, global trade, and the next wave of plant invasions*", Frontiers in Ecology and the Environment 10(1): 20-28, 2012

Diez, J.M., C.M. D'Antonio, J.S. Dukes, E.D. Grosholz, J.D. Olden, C.J.B. Sorte, D.M. Blumenthal, **B.A. Bradley**, R. Early, I. Ibáñez, S. Jones, J.J. Lawler, and L.P. Miller, "*Will extreme climatic events facilitate biological invasions?*", Frontiers in Ecology and the Environment 10(5): 249-257, 2012

Bradley, B.A. and D.C. Marvin*, *"Using Expert Knowledge to Satisfy Data Needs: Mapping Invasive Plant Distributions in the Western U.S."*, Western North American Naturalist 71(3): 302-315, 2011

Bradley, B.A. and M.T. O'Sullivan, "*Assessing the short-term impacts of changing grazing regime at the landscape scale with remote sensing"*, International Journal of Remote Sensing 32(20): 5797-5813, 2011

Orenstein, D.E., **B.A. Bradley**, J. Albert, J.F. Mustard, and S.P. Hamburg, "*How much is built? Quantifying and interpreting patterns of built space from different data sources"*, International Journal of Remote Sensing, 32(9), 2621-2644, 2011

Bradley, B.A., D.M. Blumenthal, and D.S. Wilcove, L.H. Ziska, *"Predicting plant invasions in an era of global change"*, Trends in Ecology & Evolution, 25(5), 310-318, 2010

Bradley, B.A., M. Oppenheimer, and D.S. Wilcove, *"Climate Change Increases Risk of Plant Invasion in the Eastern United States"*, Biological Invasions, 12(6), 1855-1872, 2010

Bradley, B.A., *"Assessing ecosystem threats from global and regional change: Hierarchical modeling of risk to sagebrush systems from climate change and invasive species in Nevada, USA"*, Ecography, 33, 198-208, 2010

Turner, W.R., **B.A. Bradley**, L.D. Estes, D.G. Hole, M. Oppenheimer, and D.S. Wilcove, "*Climate change: helping nature survive the human response*", Conservation Letters, 3, 304-312, 2010

Bradley, B.A. and D.S. Wilcove, *"When invasive plants disappear: transformative restoration possibilities in the western United States resulting from climate change"*, Restoration Ecology, 17(5), 715-721, 2009

Bradley, B.A., *"Accuracy assessment of mixed land cover using stratified random sampling"*, International Journal of Remote Sensing, 30(13), 3515-3529, 2009

Bradley, B.A., M. Oppenheimer, and D.S. Wilcove, *"Climate Change and Plant Invasion: Restoration Opportunities Ahead?"*, Global Change Biology, 15, 1511-1521, 2009

Bradley, B.A., *"Regional Analysis of the Impacts of Climate Change on Cheatgrass Invasion Shows Potential Risk and Opportunity"*, Global Change Biology, 15, 196-208, 2009

Marvin, D.C.*, **B.A. Bradley**, and D.S. Wilcove, "*A Novel, Web-based, Ecosystem Mapping Tool using Expert Opinion"*, Natural Areas Journal, 29(3), 281-292, 2009

Bradley, B.A. and E. Fleishman, *"Commentary: Can Remote Sensing of Land Cover Improve Species Distribution Modelling?"*, Journal of Biogeography, 35, 1158-1159, 2008

Bradley, B.A. and E. Fleishman, "*Relationships Between Expanding Pinyon-Juniper Cover and Topography in the Central Great Basin*", Journal of Biogeography, 35, 951-964, 2008

Bradley, B.A. and J.F. Mustard, "*Comparison of Phenology Trends by Land Cover Class: A Case Study in the Great Basin, U.S.A.*", Global Change Biology, 14(2), 334-346, 2008

Bradley, B.A., R.W. Jacob, J.F. Hermance, and J.F. Mustard, "*A curve-fitting technique to derive inter-annual phenologies from time series of noisy satellite data*", Remote Sensing of Environment, 106, 137-145, 2007

Hermance, J.F., R.W. Jacob, **B.A. Bradley**, and J.F. Mustard, "*Extracting Phenological Signals from Multi-Year AVHRR NDVI Time Series: Framework for Applying High-Order Annual Splines with Roughness Damping*", IEEE Trans. in Geoscience and Remote Sensing, 45, 3264-3276, 2007

Bradley, B.A., R.A. Houghton, J.F. Mustard, and S.P. Hamburg, "*Invasive Grass Reduces Carbon Stocks in Shrublands of the Western U.S.*", Global Change Biology, 12(10), 1815-1822, 2006

Bradley, B.A., and J.F. Mustard, "*Characterizing the Landscape Dynamics of an Invasive Plant and Risk of Invasion Using Remote Sensing*", Ecological Applications, 16(3), 1132-1147, 2006

Bradley, B.A., and J.F. Mustard, "*Identifying Land Cover Variability Distinct from Land Cover Change: Cheatgrass in the Great Basin*", Remote Sensing of Environment, 94(2), 204-213, 2005

Bradley, B.A., S.E.H. Sakimoto, H. Frey, and J.R. Zimbelman, "*Medusae Fossae Formation: New Perspectives from Mars Global Surveyor*", Journal of Geophysical Research, 107(E8), 5058, 2002

BOOK CHAPTERS, TEACHING/OUTREACH MATERIALS, AND TECHNICAL REPORTS

Bradley, B.A., C.A. Curtis* and J.C. Chambers, "*Bromus response to climate and projected changes with climate change*", in: Brown, C., Chambers, J. and Germino, M. (eds.), Exotic brome grasses in Arid and Semiarid Ecosystems of the western US, Springer Series on Environmental Management, 2016

Bradley, B.A. and C.A. Curtis*, "*Distribution and dynamics of non-native invasive plants*", in Fleishman, E (ed.), Natural Resource Condition Assessments for Death Valley National Park, Grand Canyon - Parashant National Monument, Joshua Tree National Park, Manzanar National Historical Site, and Mojave National Preserve. National Park Service, Dept. of the Interior, Washington, D.C. 2016

Jackson, S., **B. Bradley** and T. Cairns, "*Natural resources assessment of the Tennessee gas pipeline company's northeast energy direct project: Mainline pipeline route in Massachusetts*", Report for UMass' Center for Agriculture, Food and the Environment, April 2015

Bradley, B.A. and R.W. Harper, "*Can Community Forests in the Northeast U.S. Keep Pace with the Changing Climate?*", Arborist News 23(3):44-47, 2014

Bradley, B.A., *The biogeography of invasive plants – projecting range shifts with climate change* pages 240-252 *in* Dukes, J.S. and Ziska, L.H. (eds.), Invasive Species and Climate Change. CABI Publishing, August 2014

Blumenthal, D.M., **Bradley, B.A.**, Dukes, J.S., Ziska, L.H., *Climate change and agriculture*, in: Walthall, C.L., Hatfield, J., Backlund, P., Lengnick, L., Marshall, E., Walsh, M. (eds.), Climate change and agriculture: Effects and adaptation. USDA, 2013

Balch, J.K., M.K. Carroll, and **B.A. Bradley**, "*Invasive grass-fire cycle in the U.S. Great Basin*", Teaching Issues and Experiments in Ecology (TIEE) **8**, 2012

Bradley, B. and C.M. Schweik, "*Introduction to Geographic Science Using ArcGIS v10*", UMass Scholarworks (http://works.bepress.com/charles_schweik/21/) and lulu.com, 2012

Bradley, B., "*Predicting invasion risks and opportunities with climate change: Insights from modeling*", pages 117-124 *in* E. Rindos, ed., *Plant Invasions: Policies, Politics, and Practices*, Proceedings of the 2010 Weeds Across Borders Conference, National Conservation Training Center, Shepherdstown, WV. Montana State University, Center for Invasive Plant Management, 2010

GRANTS & CONTRACTS

Funding amounts to Bradley's lab at UMass is noted

2016-2021 *"Global Invasive Plants: Using spatial patterns to understand invasion risk to the Northeast"*, U.S. Department of Agriculture (McIntire Stennis), PI: **B. Bradley**, ($3000)

2016-2018 "*Quantifying carbon fluxes in the Great Basin due to disturbance and land cover change*", USDA Forest Service, Joint Venture Agreement, PI: B. Rau, co-PI: **B. Bradley** ($60,000)

2016-2018 *"The biogeography of invasive plants in the continental US"*, National Science Foundation, Geography & Spatial Sciences, PI: **B. Bradley**, co-PI: J. Allen ($157,400)

2015-2018 "*Relations among cheatgrass-driven fire regimes, climate change, and sensitive-status bird species across the Great Basin*", Joint Fire Sciences Program (JFSP), PI: E. Fleishman, co-PIs: **B. Bradley**, J. Balch, T. Hopkins, N. Horning, M. Leu, R. MacNally, M. Pellant ($300,000; $76,367 to UMass)

2015-2018 *"Using Time Series of Remotely Sensed Imagery to Understand Invasive Pine Dispersal"*, NASA Earth & Space Science Fellowship (NESSF), Graduate Student: C. Curtis, PI: **B. Bradley**, ($90,000)

2015-2017 *"Forecasting changes in sagebrush distribution and abundance under climate change: integration of spatial, temporal, and mechanistic models"*, North Central Climate Science Center, PI: P. Adler, co-PIs: C. Aldridge, **B. Bradley**, B. Poulter ($200,000 to Montana)

2015 *"Forecasting changes in sagebrush distribution and abundance under climate change: integration of spatial, temporal, and mechanistic models"*, Great Basin Landscape Conservation Cooperative, PI: P. Adler, co-PIs: C. Aldridge, **B. Bradley**, B. Poulter ($85,000 to USU)

2015 "*Will Impacts of Global Change be Greater than the Sum of its Parts?"*, Borchard Foundation Colloquium, PI: C. Sorte, co-PIs: A. Bates, **B. Bradley**, R. Early ($35,000 for working group meeting)

2014-2017 *"Understanding Climate and Land Use Drivers of invasive-Grass Fueled Fires Across the Western U.S."*, NASA Terrestrial Ecology Program, PI: J. Balch, co-PIs: **B. Bradley**, J. Abatzoglou ($582,245; $204,448 to UMass)

2011-2016 *"Modeling risk of plant invasions in Massachusetts and surrounding states under current and future climate conditions"*, U.S. Department of Agriculture (Hatch), PI: **B. Bradley**, ($20,425)

2011-2016 *"Modeling landscape-scale invasion risk in western Massachusetts forests using remote sensing"*, U.S. Department of Agriculture (McIntire Stennis), PI: **B. Bradley**, ($65,600)

2012-2014 *"Biogeography and Remote Sensing of Non-Native Plant Invasions in the Mojave Network Parks"*, National Park Service, Natural Resource Condition Assessment, PI: E. Fleishman, subcontract to **B. Bradley** ($29,696)

2011-2012 *"Integrating ecological forecasting methods to improve prioritization of natural resource management: An invasive species example"*, USGS Powell Center, PIs: **B. Bradley**, J. Morisette ($59,870 for working group meetings)

2010-2014 *"Integrated spatial models of non-native plant invasion, fire risk, and wildlife habitat to support conservation of military lands in the arid Southwest"*, U.S. Department of Defense, Strategic Environmental Research and Development Program, PI: B. Dickson, co-PIs: **B. Bradley**, S. Sesnie, T. Sisk, ($2,100,000; $322,992 to UMass)

2007-2008 *"Maintaining connectivity in the Great Basin in the face of climate and land cover change"*, Wilburforce Foundation, PI: **B. Bradley** ($15,000)

2006-2007 *"Measuring landscape response to changes in grazing regime using remote sensing"*, Lava Lake Foundation, PI: **B. Bradley** ($5000)

FELLOWSHIPS AND AWARDS

Scaling up working group participant (Ecological Soc. America)	*2013*
Climate change & invasives working group participant (NCEAS)	*2011-2012*
Bromus working group participant (USDA AFRI)	*2010-2012*
DISCCRS Scholar (Early career climate change researcher)	*2007*
Brown University Dissertation Writing Fellowship	*2006*
Brown University Geology Club Award for Service to the Department	*2006*
Dept. of Defense: National Defense Science and Engineering Graduate Fellowship	*2001-2004*
D.B McIntyre-H. Stanton Hill Award for an outstanding student in geology	*2000*
Isabel F. Smith Award for service in geological sciences	*1999*
National Merit Scholar	*1996-2000*

POPULAR PRESS ARTICLES ABOUT MY RESEARCH

"Study: People start 84% of wildfires", USA Today, 2/2017 https://tinyurl.com/l5uagef, NPR: https://tinyurl.com/z3gowh9, https://tinyurl.com/j2nrf5s, AP: https://tinyurl.com/gvd57on
"Most nations lack ability to deal with invasive species", BBC News, 8/2016
http://www.bbc.com/news/science-environment-37165712
"Researcher finds way to fight cheatgrass", NYTimes, 10/2015 http://tinyurl.com/h2mqmm6
"Planting a seed", Hampshire Gazette, 2/2015 http://tinyurl.com/pz7rcv9
"Alien plants widespread and poised to invade", radio interview NEPR, 1/2015
http://nepr.net/news/2015/01/24/study-alien-plants-widespread-and-poised-to-invade/
"Invasive plants taking over the US", Science News, 1/2015
http://news.sciencemag.org/biology/2015/01/invasive-plants-taking-over-u-s
"In Arid West, Cheatgrass Turns Fires Into Infernos", radio interview NPR, 12/2012
http://www.npr.org/2012/12/05/166574589/in-arid-west-cheatgrass-turns-fires-into-infernos
"Research team issues warning about invasive plants", radio interview KCLU, 1/2012,
http://www.kclu.org/2012/01/09/santa-barbara-county-based-research-team-issues-warning-about-invasive-plants/
"*Will climate change hasten the spread of invasive plants?"*, Union of Concerned Scientists, 1/2011,
http://www.grist.org/article/2011-01-04-will-climate-change-hasten-the-spread-of-invasive-plants
"Invasive plants move north", U.S. Fish & Wildlife Service, 3/2010,
http://www.fws.gov/northeast/climatechange/stories/kudzu.html
"Kudzu", radio interview NEPR, 1/2010,
http://www.publicbroadcasting.net/wfcr/news.newsmain/article/0/0/1595096/WFCR.Local.Features/Kudzu
"*Study: Climate change may reshuffle western weeds*", Associated Press, 2/2009,
http://www.signonsandiego.com/news/2009/feb/06/farm-scene-western-weeds-020609/
"*A web-based tool for mapping invasive species using local expertise*", Conservation Maven, 9/2009,
http://tinyurl.com/p5edh5z

INVITED SEMINARS

28. Statistics in Ecology, Environment and Conservation, University of Cape Town, Dec, 2016
27. Rubenstein School for the Environment, University of Vermont, Nov, 2015
26. Woodrow Wilson School, Princeton University, Apr, 2015
25. The Ecosystems Center, Marine Biological Lab, Mar, 2015
24. Harvard Forest, Feb, 2015
23. Stockbridge School for Agriculture, UMass, Amherst, Oct, 2014
22. Department of Biology, Union College, Oct, 2014
21. Department of Biology, Smith College, Jan, 2014
20. Massachusetts Tree Wardens & Foresters Annual Meeting, Jan, 2014
19. Department of Ecology & Evolutionary Biology, University of Colorado, Boulder, Oct, 2013
18. School of Natural Resources, University of Nebraska, Lincoln, Oct, 2013
17. Massachusetts Nursery & Landscape Association (*Keynote*), Jul, 2013

16. North American Invasive Plant Short Course webinar, Apr, 2013
15. Cary Institute for Ecosystem Science, Feb, 2013
14. Department of Biology, College of William & Mary, Nov, 2012
13. NY State Monthly Invasives Webinar, Oct, 2012
12. Department of Geography, Clark University, Sept, 2012
11. Department of Biology, UMass, Boston, Apr, 2012
10. Department of Geography, Rutgers, Feb, 2012
9. U.S. Department of Agriculture, APHIS Center for Integrated Pest Management, Jan, 2012
8. Program in Plant Biology & Conservation, Chicago Botanic Garden, Jan, 2012
7. Department of Botany & Zoology, Stellenbosch University, Aug, 2011
6. Faculty colloquium on the impacts of climate change, UMass, Amherst, Nov, 2010
5. Department of Organismic and Evolutionary Biology, UMass, Amherst, Apr, 2010
4. Department of Ecology, Evolution and Conservation Biology, University of Nevada, Reno, Oct, 2009
3. Invasive Species Advisory Council bi-annual meeting, Tucson, May, 2009
2. Biospheric Sciences Laboratory, NASA/Goddard Space Flight Center, Greenbelt, MD, Mar, 2008
1. Western Weed Coordinating Committee, Las Vegas, Dec, 2008

SELECTED CONFERENCE PRESENTATIONS (LAST 5 YEARS)

*Advisees are underlined - [#]Postdoc, *Graduate student, [†]Undergraduate student*

Curtis, C.A.*, and Bradley, B.A., "*Using time series of remotely sensed images to quantify pine invasion*", American Association of Geographers Annual Meeting, Boston, April 2017

Fusco, E.*, S. Dadashi, J. Balch, J. Finn, R. Nagy, J. Abatzoglou, B. Bradley, "*Modeling detection biases in remotely sensed and agency reported fires in the US 2003-2013*", American Association of Geographers Annual Meeting, Boston, April 2017

Laginhas, B.*, N. Pawell[†], B. Bradley, "*Quantifying spatial and taxonomic biases in invasion ecology research*", American Association of Geographers Annual Meeting, Boston, April 2017

Fusco, E.*, B. Bradley, R. Nagy, J. Balch, "*Invasive grasses increase fire frequency and size across a range of US ecosystems*", International Biogeography Society, Tucson, January 2017

Bradley, B., R. Early and C.J.B. Sorte, "*Space to invade? Comparative range infilling and potential range of invasive and native plants*", Ecology & Mgmt of Alien Plant Invasions, Waikoloa Sep 2015

Allen, J.[#] and B. Bradley, *"Out of the weeds? Reduced plant invasion risk with climate change"*, Ecological Society of America, Baltimore Aug 2015

Bocsi, T.[†], J. Allen[#], J. Bellemare, J. Kartesz, M. Nishino and B. Bradley, "*Species distributions do not reflect climatic tolerance*", Ecological Society of America, Baltimore Aug 2015

Curtis, C.* and B. Bradley, "*How well do distribution data reflect physiological tolerance limits?"*, Ecological Society of America, Baltimore Aug 2015

Fusco, E.*, J. Abatzoglou, J. Balch and B. Bradley, "*Quantifying human influence on fire ignitions across the western U.S.*", NASA Carbon Cycle & Ecosystems Joint Science Workshop, Maryland Apr 2015

Balch, J., B. Bradley, C. D'Antonio and J. Gomez-Dans, "*Introduced annual grass increases regional fire activity across the arid western USA (1980–2009)*", NASA Carbon Cycle & Ecosystems Joint Science Workshop, Maryland Apr 2015

Abatzoglou, J., B. Bradley, E. Fusco* and J. Balch, "*Lightning Ignited Fires over the Western United States*", NASA Carbon Cycle & Ecosystems Joint Science Workshop, Maryland Apr 2015

Allen, J.[#], A. Keller and B. Bradley, "*Plant invasion hotspots in the contiguous United States*", International Biogeography Society, Bayreuth Germany January 2015

Bradley, B.A. "*Invaders from space: Remote sensing of invasive plants*", International Biogeography Society, Plenary Symposium: Tracking changes from space, Bayreuth Germany January 2015 (*Invited talk*)

Curtis, C.* and B. Bradley "*Using time series of remotely sensed imagery to understand the dispersal dynamics of invasive species*", International Biogeography Society, Bayreuth Germany January 2015

D'Antonio, C.M., J.K. Balch, and B.A. Bradley, *"Drought, invasive grasses and fire cycles – implications for ecosystem resilience in drylands"* Ecological Society of America (ESA), August 2014

Curtis, C.A.*, M. Leu and B.A. Bradley, "*How do climate, disturbance, and the interaction between them affect Bromus tectorum distribution in the western U.S.?*" International Association of Landscape Ecology, May 2014

Chambers, J.C. and B.A. Bradley, "*Applied ecology in an era of global change*" Ecological Society of America Annual Meeting, August 2013

Bradley, B.A., R. Early and C.J.B. Sorte, "*How far from equilibrium are non-native plants? Implications for modeling invasion risk.*" International Biogeography Society Mtg, January 2013

Curtis, C.A.*, N.E. Lehan† and B.A. Bradley, "*The distribution of abundance for terrestrial invasive plants: A novel approach for modeling impact risk*" International Biogeography Society Mtg, January 2013

TEACHING EXPERIENCE

University of Massachusetts, Amherst

Introduction to GIS (NRC585) — *Spr. 2011-2016*
- Teaches GIS and spatial analysis using ArcGIS software
- Students: 60 (4 credits)

Invasion Ecology (NRC590IE) — *Fall (even years)*
- Investigates the introduction, ecology and impacts of invasive species
- Students: 30 (3 credits)

Global Change Ecology (NRC547) — *Fall (odd years)*
- Explores anthropogenic impacts on ecosystems
- Students: 30 (3 credits)

Ecosystems of the Anthropocene — *2015-2016*
- Seminar discussion for Commonwealth Honors College
- Students: 15 (1 credit)

Advanced GIS (NRC597AM) — *Fall 2012*
- Introduces advanced topics in GIS analysis and data processing
- Students: 7 (3 credits)

Readings in GIS (NRC597GA) — *Fall 2010*
- Surveys literature on advanced applications of GIS
- Students: 4 (2 credits)

LAB MEMBERS (CURRENT AND PAST)

Graduate Student Advisees

Caroline Curtis	PhD student, OEB	*2012-present*
Emily Fusco	PhD student, OEB	*2013-present*
Brittany Laginhas	PhD student, OEB	*2016-present*
Tyler Cross	MSc student, ECO	*2014-2016*
Renee Vieira	MSc student, ECO	*2011-2013*

Postdoctoral Research Associate

Valerie Pasquarella	Remote sensing of invasions	*2016-present*

Jenica Allen	Invasion hotspot modeling	*2014-2015*

Research Technicians

Tyler Cross	Northeast invasive plant collection	*2013-2014*
Adrienne Keller	US invasive plant collection	*2012-2013*
Kathleen Theoharides	Cheatgrass data collection	*2011-2012*

Undergraduate Student Research Advisees

Sarah Ayton (*2014-2015*), Kayla Baker (*2013-2014*), Amanda Bertino (*2014*), Tierney Bocsi (*2014-2015*), Brian Breen (*2014*), Charles Cini (*2010*), Alex Cook (*2013*), Erin Duffey (*2014*), Devon Dunajski (*2015-2016*), Cecilia Frisardi (*2013*), Sara Gehrdes (*2009-2011*), Avery Guan (*2015-2016*), My Huynh (*2017*), Manan Jain (*2013*), Evan Johnson (*2017*), Rebecca Johnson (*2015*), Beth Kazimer (*2016*), Nora Lehan (*2012*), Elizabeth Levson (*2015*), Ashley McElhinney (*2016*), Julia Murphy (*2012*), Nicole Pawell (*2015-2017*), Mei Rockwell-Postal (*2017*), Raisa Rodriguez (*2011*), Sarah Ryan (*2015*), Amira Soltani (*2014-2015*), Lukas Thorburn (*2012*)

UNIVERSITY SERVICE

Search Committee, GIS lecturer, Co-chair	*2015-2016*
Graduate Operations Committee, OEB	*2015-2016*
Department Head Evaluation Committee, Chair	*2014-2015*
ECO First-year Graduate Student Mentoring Program, Chair	*2013-present*
Search Committee Member, Stockbridge Soils & Global Change Faculty	*2013-2014*
Admissions Committee Member, OEB graduate students	*2012-2013*
Undergraduate Concentration Coordinator, Env. Conservation	*2011-present*
Search Committee Member, OEB Darwin Postdoctoral Fellow	*2011-2012*
Search Committee Member, ECO Environmental Policy Faculty	*2010-2011*
Search Committee Member, Brown University Athletic Director	*2004-2005*
Career Services advisory committee Member, Brown University	*2001-2005*
Sheridan Teaching Center graduate student liaison, Brown University	*2003-2005*

PROFESSIONAL SERVICE

Associate Editor:
Ecography (2014 – present), IF: 4.8
Diversity and Distributions (2010 – 2016), IF:3.7

Proposal reviewer:
NSF (*ad hoc and panelist*),
NASA (*ad hoc and panelist*),
Department of Defense (*ad hoc*),
USDA (*panelist*)

Journal reviewer:
Biological Conservation, Biological Invasions, Conservation Biology, Diversity and Distributions, Ecography, Ecological Modelling, Ecology, Ecology Letters, Ecosystems, Frontiers in Ecology & the Environment, Global Change Biology, Global Ecology and Biogeography, International Journal of Remote Sensing, Invasive Plant Science & Management, Journal of Applied Ecology, Journal of Biogeography, Journal of Environmental Management, Landscape Ecology, NeoBiota, New Phytologist, PNAS, Remote Sensing of Environment, Science, Weed Science, Western North American Naturalist