

Curriculum vitae

Marit L. Wilkerson, PhD

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AAAS S&T Policy Fellow

Climate Change Advisor

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CURRENT POSITION

Sept 2014- AAAS S&T Policy Fellow with USAID, Washington, DC. Supervisor: Tegan Blaine
Aug 2016 *As a Climate Change Advisor with the Bureau for Africa at USAID, I help integrate climate change into Agency policy and process and provide technical assistance as needed to our in-country field offices. My portfolio centers on climate-smart agriculture (CSA) and within that, I work to mainstream CSA within the Agency where relevant and to ensure that CSA research and projects directly feed into positive, sustained development impacts.*
Specific activities include: Activity Manager for 1-yr research project on CSA adoption; USAID lead on co-developed project on private investment in CSA; project design for field offices on integrated agriculture & climate change investments; co-organizer for annual USAID Africa Climate Change Technical Officers meetings; development of internal climate change communication materials; serve on focus group to implement Executive Order on Climate Resilience; function as key USAID POC for CSA in Africa

EDUCATION

PhD **University of California, Davis**, Graduate Group in Ecology, 2007-2013
Dissertation advisor: Truman P. Young
Dissertation title: "Invasive plants in conservation linkages: from conceptual model to understanding real-world patterns"
Conservation Management training certificate, completed in 2011

BS/BA **University of Texas, Austin**, Biology with a focus in Ecology, Evolution & Behavior/Plan II Honors, both with highest honors and as Phi Beta Kappa, 2002-2006

RESEARCH

2014 Urban conservation and ecosystem services, Brisbane, QLD, Australia
2010-2013 Matrix effects on invasive plants in large-scale conservation linkages, Riverside and San Diego Counties, CA
2010-2012 Content analysis and targeted interviews for Lacher & Wilkerson 2013 and Blickley et al. 2013
2009-2013 Landscape ecology of invasive plants in agricultural hedgerows, Yolo County, CA
2009-2011 Climate change vulnerability analysis, Willamette Valley, OR
2008-2013 Restoration of native forbs for pollinator services, Yolo County, CA
2007-2012 Trophic interactions in working landscape, Laikipia District, Kenya
2005 Demographic study of invasive plant, *Alliaria petiolata*, Harvard Forest, MA

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PAST EMPLOYMENT

- Sept 2013-Aug 2014 **Research Associate**, Dept. of Plant Sciences, UC Davis. PI: Truman P. Young.
Conservation outreach projects; revisions and submissions of academic papers to peer-reviewed journals; researcher profile video shorts
- Jan-Apr 2014 **Visiting Research Fellow**, Centre of Excellence for Environmental Decisions, University of Queensland, Australia. PI: Jonathan Rhodes & Kerrie Wilson.
Theoretical and modeling research and writing on urban conservation & ecosystem services; running and participating in academic workshops; supporting Centre activities
- Mar-May 2007 **Research Assistant**, Johnson's Bayou, LA, PhD project of Zoltan Nemeth, University of S. Mississippi.
Assisting bird migration monitoring at long-term banding site, inc. running nets, identifying species, data entry, insect surveys
- June-Sept 2006 **Seasonal Biological Technician**, Petrified Forest National Park, AZ.
Managed reptile and amphibian monitoring, inc. statistical analysis; In charge of prairie dog surveying and monitoring, inc. redesigning official park protocol and statistical analysis
- May-Aug 2005 **Research Experience for Undergraduates (REU) intern**, NSF-funded, Harvard Forest, MA.
*Collecting data on reciprocal transplant plots of invasive garlic mustard, *Alliaria petiolata*; Designing and implementing region-wide demographic study of *A. petiolata* populations in Western Massachusetts*
- May-Aug 2004 **Student Conservation Association (SCA) intern**, SCA-funded, Wichita Mountains National Wildlife Refuge, OK.
Assisting with biologists' work, inc. ground-truthing for Refuge-wide vegetation map, GIS mapping, water testing, cowbird trapping, and prairie dog transplants; Taught Environmental Education classes; Staffed the Visitor Center

PUBLICATIONS

- Winford, E, **ML Wilkerson**, L Porensky, Lacher, K Garbach, K Deiner, J Blickley & M Meek. In press. Skills for Non-Academic Wildlife & Conservation Careers. Book chapter in: Wildlife Professions: Becoming Marketable for Employment. Henke, SE & PR Krausman, eds. Johns Hopkins University Press.
- Wilkerson, ML**, K Ward, K Ullmann, N Williams & TP Young. 2014. Diminishing returns from higher density restoration seedings suggest trade-offs in pollinator seed mixes. *Restoration Ecology* 22: 782-789.
- Wilkerson, ML**. 2014. Using hedgerows as model linkages to examine non-native plant patterns. *Agriculture, Ecosystems, and Environment* 192: 38-46

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Lacher, I* & **ML Wilkerson**. 2013. Wildlife connectivity approaches and best practices in U.S. State Wildlife Action Plans. *Conservation Biology* 28: 13-21 *Authors contributed equally.

Wilkerson, ML. 2013. Invasive plants in conservation linkages: A conceptual model that addresses an underappreciated conservation issue. *Ecography* 36: 1319-1330.

Wilkerson, ML, LM Roche & TP Young. 2013. Indirect effects of domestic and wild herbivores on pollinators in an African savanna. *Ecology and Evolution* 3: 3672–3682

Blickley, J*, K Deiner, K Garbach, I Lacher, M Meek, LM Porensky, **ML Wilkerson**, E Winford & MW Schwartz. 2013. Graduate students' guide to necessary skills for nonacademic conservation careers. *Conservation Biology* 27: 24-34. *First 8 authors contributed equally

Riginos, C, LM Porensky, KE Veblen, WO Odadi, RL Sensenig, D Kimuyu, F Keesing, **ML Wilkerson** & TP Young. 2012. Lessons on the relationship between livestock husbandry and biodiversity from the Kenya Long-term Exclosure Experiment (KLEE). *Pastoralism: Research, Policy and Practice* 2:10

Schwartz, MW*, K Deiner, T Forrester, P Grof-Tisza, MJ Muir, MJ Santos, LE Souza, **ML Wilkerson** & M Zylberberg. 2012. Perspectives on the Open Standards for the practice of conservation. *Biological Conservation* 155: 169-177. *All authors after first contributed equally

Z Steel, **ML Wilkerson**, P Grof-Tisza & K Sulzner. 2011. Assessing species and area vulnerability to climate change for the Oregon Conservation Strategy: Willamette Valley Ecoregion. Report for Defenders of Wildlife and Oregon Department of Fish and Wildlife. (Accessed: Nov 2015)
http://www.defenders.org/resources/publications/programs_and_policy/gw/assessing_species_and_area_vulnerability_to_climate_change_for_the_oregon_conservation_strategy_willamette_valley_ecoregion.pdf

Vaughn, KJ, LM Porensky, **ML Wilkerson**, J Balachowski, E Pepper, C Riginos, and TP Young. 2010. Restoration Ecology. *Nature Education Knowledge* 1(8):66.

FULLY PREPARED MANUSCRIPTS

Wilkerson, ML, M Mitchell, D Shanahan, KA Wilson, CD Ives, C Lovelock, & JR Rhodes. In prep. The role of socio-economics in mediating ecosystem services in urban green spaces. To be submitted to *Frontiers in Ecology & Environment*.

Fuller, RA, DF Shanahan, CD Ives, N Levin, S Kark, SA Bekessy, GE Garrard, K Ikin, D Kendal, PE Lentini, CG Threlfall & **ML Wilkerson**. In prep. Urban habitats and conservation priority. To be submitted to *Biological Conservation*.

Wilkerson, ML. In prep. Invasive plants in conservation linkages: how matrix, edge effects, and species dispersal mode matter. To be submitted to *Landscape Ecology*.

K Parris*, M Amati, S Bekessy, D Dagenais, O Fryd, AK Hahs, D Hes, SJ Imberger, SJ Livesley, AJ Marshall, J J Rhodes, C Threlfall, R Tingley, C Walsh, R Van Der Ree, **ML Wilkerson** & NS Williams. In prep. The seven lamps of biodiverse cities: towards a common understanding between ecologists and practitioners in the urban environment. To be submitted to *Landscape and Urban Planning*

*Authors after first listed alphabetically

SERVICE

- 2015-present **Secretary**, Society for Conservation Biology Board of Governors
Serve as voting member of the Executive Committee on the Board; maintain notes & minutes of all Board meetings and events
- 2014-present **Financial Affairs**, Society for Conservation Biology Chapters Committee
Manage finances for Chapters Committee and Chapter grants and awards; provide general support for Chapters Committee
- 2012-2014 **Conference Coordinator**, Society for Conservation Biology Chapters Committee
Organizing chapter-specific events (mixers, business meetings, workshops, symposia, posters, etc.), travel awards, and volunteers at international and regional conferences
- 2010-2012 **President**, Society for Conservation Biology-Davis chapter, member since fall 2007, Secretary 2008-2009, Vice-President 2009-2010.
Organizing quarterly meetings, overseeing progress and activity of subcommittees, formed partnership with non-profit Cool Davis Initiative, co-organizer for public education seminar initiative in summer 2011. Started position of Volunteer Coordinator in 2008, co-committee chair for fundraising & donations for Bay Area Conservation Biology annual meeting 2008
- 2010-2012 **Executive Planning Committee member** for North American Congress for Conservation Biology 2012.
Voting and decision-making input on all major concept and logistic steps of symposium organization process; part of Student Activities and Chapter Activities sub-committees; building local volunteer base
- 2009-2012 **Co-founder and member**, Davis Student Chapter of California-Invasive Plant Council (CAL-IPC).
Represent parent organization at local events; developed "Don't Plant a Pest" fact sheets for California Native Plant Society's Gardening Committee; spread awareness of invasive plant issues through lobbying and informational pieces
- 2008-2012 **Group mentor**, Student and Landowner Education and Watershed Stewardship (SLEWS), Center for Land-Based Learning.
Mentoring high-school students on restoration projects; involves teaching basic planting skills, restoration science, and an appreciation for the outdoors

PRESENTATIONS

Wilkerson, ML. 2015. Oral presentation. International policy and pressure around climate-smart agriculture. 27th International Congress for Conservation Biology (ICCB) & 4th European Congress for Conservation Biology, Montpellier, France.

Wilkerson, ML. 2015. Invited speaker. Processes and ideas to affect local change for conservation. Society for Conservation Biology policy webinar series, online.

Wilkerson, ML 2014. Invited speaker. Forgotten pieces: the state of wildlife linkage planning in the U.S. Dept. of Wildlife & Entomology seminar series, University of Delaware, Newark, DE.

Wilkerson, ML 2014. Guest lecture. Location, location, location: How socio-economic context impacts valuation of ecosystem services. Environmental Decisions Group seminar series, Commonwealth Scientific and Industrial Research Organisation office, Brisbane, QLD, Australia.

Wilkerson, ML 2014. Invited speaker. Context matters: socio-demographics influence ecosystem service delivery. School of Agricultural and Resource Economics/Australia Agricultural and Resource Economics Society seminar series, University of Western Australia, Perth, WA, Australia.

Wilkerson, ML 2013. Poster presentation. Invasive plants in the conservation linkage? How matrix, edge effects, and species dispersal mode matter. 26th ICCB, Baltimore, MD.

Wilkerson, ML*, K Ward, N Williams, K Ullmann & TP Young. 2013. Oral presentation. Rewilding Central Valley field margins with native forbs. 20th Annual Conference of the California Society for Ecological Restoration, Santa Barbara, CA.

Wilkerson, ML 2012. Oral presentation. A conceptual model and framework for addressing the unaddressed issue of invasive plants in conservation linkages. 97th Annual Meeting of the Ecological Society of America (ESA), Portland, OR.

Wilkerson, ML 2011. Oral presentation. Invasive plants in conservation linkages: what have we been overlooking? 25th ICCB, Auckland, New Zealand.

Wilkerson, ML 2011. Oral presentation. The importance of landscape context in invasive plant patterns within conservation linkages. 20th California-Invasive Plant Council Symposium (Cal-IPC), Tahoe City, CA.

Wilkerson, ML*, K Ullmann, C Kremen & TP Young. 2011. Award-winning oral presentation. Planting California hedgerows: native forb mix success at different densities. 4th World Conference on Ecological Restoration, Mérida, Mexico.

Wilkerson, ML 2011. Oral presentation. The role of the surrounding landscape matrix in invasion of conservation linkages by non-native plants. 96th Annual Meeting of the ESA, Austin, TX.

Steel, Z*, P Grof-Tisza*, K Sulzner & **ML Wilkerson***. 2011. Group oral presentation. Assessing species vulnerability to climate change in the Willamette Valley ecoregion. Bay Area Conservation Biology Symposium (BACBS), University of California, Berkeley, CA.

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Wilkerson, ML 2010. Oral presentation. Downsides to landscape connectivity: examining plant invasion potential in conservation linkages. 95th Annual Meeting of the ESA, Pittsburgh, PA.

Wilkerson, ML 2010. Guest lecture. Upsides and downsides of conservation linkages. Conservation Biology Seminar Series, EVE 198 UC Davis.

Wilkerson, ML 2010. Oral presentation. Downsides to landscape connectivity: examining plant invasion potential in conservation linkages. BACBS, San Francisco State University, San Francisco, CA.

Wilkerson, ML 2010. Invited speaker. Downsides to corridors: examining plant invasion potential in linear biodiversity features. 3rd Annual Symposium presented by Northern California Botanists, California State University, Chico, CA.

Wilkerson, ML* & TP Young. 2009. Oral presentation. Indirect effects of domestic and wild herbivores on pollinators in an African savanna. 2nd Annual UC Davis Graduate Student Symposium in Ecology, UC Davis.

Wilkerson, ML*, K Ullmann, C Kremen & TP Young. 2009. Poster presentation. What to plant in Central Valley hedgerows: relative success of three native flowering forb mixes at three densities. California Native Plant Society Conservation Conference, Sacramento, CA; California Native Grass Association/Society for Ecological Restoration-California dual annual meeting, Folsom, CA; 94th Annual Meeting of the Ecological Society of America, Albuquerque, NM.

Wilkerson, ML* & TP Young. 2008. Poster presentation. Indirect effects of domestic and native herbivores on pollinators in an African savanna. 93rd Annual Meeting of the ESA, Milwaukee, WI.

OUTREACH ACTIVITY

"Science communication through film." 2014. **Invited speaker** for graduate-level science communication seminar series, University of Delaware, Newark, DE.

"Weeds in your hedgerows? Actions to consider." 2013. 2-part article published in Colusa County Conservation, Colusa County Resource Conservation District **quarterly newsletter**. Volume 3: 4 & 5.

Factsheets for hedgerow research projects (invasive plants and native forbs). 2013. Emailed or mailed to all private landowners involved in hedgerow research and local Resource Conservation District, National Resource Conservation Services, and Audubon California offices.

<http://maritwilkerson.com/outreach-and-service/general/>

"Invasive plants and conservation linkages: missing pieces of the conservation puzzle." Dec, 2012. **Invited speaker** at the monthly Riverside County land managers meeting, Riverside, CA.

"Advice for getting your dream job in conservation science." 2012. K Deiner, ML Wilkerson & LM Porensky. **Blog post** entry on popular website about graduate skills paper (Blickley et al. 2013). <http://conservationbytes.com/2012/12/04/advice-for-getting-your-dream-job-in-conservation-science/>

"Role of science and scientists in collaborative conservation decision-making and planning: a workshop in skill development." 2011. Co-organized with another grad student and two staff members of John Muir Institute for the Environment. 2-day evening **workshop** with 15 grad students, UC Davis campus.

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"Climate Change and Conservation." 2011. Co-organizer and presenter of Conservation Connoisseur Seminar Series. 2-part **public seminar** held at Davis City Library.

"Assessing species and reserve vulnerability to climate change in the Willamette Valley ecoregion." 2011. Led workshop organization with partners from Oregon Dept. of Fish and Wildlife & Defenders of Wildlife; a half-day **workshop** on Conservation Management project results for local stakeholders. Presentations by Z. Steel, M.L. Wilkerson & P. Grof-Tisza. ODFW headquarters, Salem, OR.

"Outreach: Broader Impacts Resource Portal." 2011. Co-author/creator. **Online outreach module** with guidelines for developing outreach plans for dissertation research with an emphasis on involving underrepresented groups. <http://ecology.ucdavis.edu/outreach>.

"Downsides to landscape connectivity: examining plant invasion potential in conservation linkages." Nov, 2010. **Invited speaker** at the monthly Riverside County land managers meeting, Riverside, CA.

"Ecological Restoration Workshop." 2009. Co-organized with three other graduate students and two professors. Daylong **workshop** with invited, sponsored speakers and approx. 50 attendees, UC Davis.

Wrote and hard- mailed **report updates** for private landowners and Audubon California staff involved in forb restoration project in Yolo County, California, 2008, 2009.

"Butterflies and blooms: contrasting effects of cattle and wildlife." 2008. ML Wilkerson & TP Young. "KLEE Corner" #10, Laikipia Wildlife Forum **Newsletter**. May Issue.

OUTREACH and COMMUNICATIONS TRAINING

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| July 2013 | Half-day workshop at International Congress for Conservation Biology: "New media matters: communicating conservation research & ideas." Led by Dr. Kate Christen of Smithsonian-Mason School of Conservation. Baltimore, Maryland. |
| Spring 2012 | Translating Research Beyond Academia seminar series: "Communicating with Stakeholders and Decision and Policy Makers." Sponsored by Environmental Leaders Program of John Muir Institute for the Environment (JMIE). UC Davis course. |
| Dec 2011 | 1-day workshop at International Congress for Conservation Biology 201: "Involving People in Conservation: the role of human dimensions research and applied approaches." Led by Dr. A. Bath of Memorial University Canada. Auckland, New Zealand. |
| Fall 2011 | Translating Research Beyond Academia seminar series: "Education Outreach and Broader Impacts." Sponsored by JMIE. UC Davis course. |
| Winter 2011 | Translating Research Beyond Academia seminar series: "Science Communication and Writing." Sponsored by JMIE. UC Davis course. |
| October 2010 | Week-long immersion workshop with ScienceFilm to learn technical and creative basics of scientific documentary film-making. Bodega Bay, CA. |
| Spring 2009 | Student participatory seminar: "Broader Impacts." Sponsored by Graduate Group in Ecology. UC Davis course. |

FELLOWSHIPS and GRANTS

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| 2014 | Centre of Excellence for Environmental Decisions Early Career Researcher Grant, \$7400 |
| 2009-2012 | National Science Foundation (NSF) Graduate Researcher Fellowship, \$90,000 + tuition |
| 2008-2012 | Jastro Shields Research Fellowship, UC Davis, 3 awards, total \$3645 |
| 2008, 2012 | Humanities Graduate Research Award, UC Davis, 2 awards, total \$3000 |
| 2008-2012 | Plant Sciences' Madson Scholarship, UC Davis, 4 separate awards, total \$4000 |
| 2008, 2011 | Northern California Botanists' student research award, 2 awards, total \$2000 |
| 2008-2013 | Plant Sciences Fellowship, UC Davis, 1 award for 8 academic quarters, \$35,000 + tuition |
| 2007, 2008 | Graduate Group in Ecology block grant, UC Davis, 2 awards, total \$21,600 + tuition |
| 2002-2006 | National Merit Scholarship, 4-year tuition for UT Austin |

AWARDS and HONORS

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| 2014 | Shapiro Family Award for Excellence in Science, Dept. of Plant Sciences, UC Davis <i>Recognition of top-level Plant Sciences dissertation in 2013</i> |
| 2011 | Spurr Service Award, Graduate Group in Ecology, UC Davis <i>Presented to a currently enrolled student for outstanding accomplishment in outreach</i> |
| 2011 | Niering Award for Best Student Presenter, 4 th World Conf. on Ecological Restoration |
| 2009 | Directors' Award for best poster presentation, California Native Grass Association/ Society for Ecological Restoration-California conference |
| 2006 | Dean's Honored Scholar for Natural Sciences, UT Austin <i>Awarded to .1% of graduating class</i> |
| 2006 | Joynes Award for Creative Thesis for Plan II Honors, UT Austin |

SKILLS

Field/Lab: field research skills, inc. ability to use compass, topo maps, and GPS units; advanced plant ID skills; knowledge of different small vertebrate population monitoring methods; basic knowledge of laboratory equipment and maintenance

Technical:

Statistical packages: extensive experience with statistical packages JMP 9, CANOCO 4.56, and SAS; past experience with MATLAB 6.5 and SPSS 13.0; basic knowledge of R programming language

Other programs: extensive experience with ArcGIS 10, Miradi, Microsoft PowerPoint, Word, and Excel; past extensive experience with Map Source, GAP Light Analyzer and BoxCarPro; basic knowledge of Marxan

Other: advanced Spanish skills (writing, reading, and speaking); basic cinematography skills; experience in rigorous survey and interview techniques

PROFESSIONAL AFFILIATIONS

Member of: Ecological Society of America & Society for Conservation Biology

REVIEWER for *Conservation Biology* and *Restoration Ecology* journals

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REFERENCES

Tegan Blaine
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Department of Plant Sciences, UC Davis

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John Randall
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Mark Schwartz
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Director of John Muir Institute of Environment

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