# Marit L. Wilkerson, PhD

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### **CURRENT POSITION**

Sept 2013- Research Associate, Dept. of Plant Sciences, UC Davis. PI: Truman P. Young.

Aug 2014 Duties include: Conservation outreach projects; revisions and submissions of academic papers to peer-reviewed journals; researcher profile video shorts

#### **EDUCATION**

PhD	University of California, Davis, Graduate Group in Ecology, 2007-2013
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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, 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

#### **PUBLICATIONS**

**Wilkerson, ML.** 2014. Using hedgerows as model linkages to examine non-native plant patterns. *Agriculture, Ecosystems, and Environment* 192: 38-46

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 **c**onservation. *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: April 2014) <a href="http://www.defenders.org/resources/publications/programs">http://www.defenders.org/resources/publications/programs</a> and policy/gw/assessing species and ar ea vulnerability to climate change for the oregon conservation strategy willamette valley ecoregion.pdf
- Vaughn, KJ, LM Porensky, **ML Wilkerson**, J Balachowski, E Peffer, C Riginos, and TP Young. 2010. Restoration Ecology. *Nature Education Knowledge* 1(8):66.

### PROVISIONALLY ACCEPTED MANUSCRIPT

**Wilkerson, ML**, K Ward, K Ullmann, N Williams & TP Young. In review. Diminishing returns from higher density restoration seedings suggest tradeoffs in pollinator seed mixes. *Restoration Ecology*.

## **FULLY PREPARED MANUSCRIPTS**

- **Wilkerson, ML.** In prep. Invasive plants in conservation linkages: how matrix, edge effects, and species dispersal mode matter. To be submitted to *Landscape Ecology*.
- Fuller, RA, DF Shanahan, CD Ives, S Kark, N Levin & **ML Wilkerson**. In prep. Can urban habitats ever be a conservation priority? To be submitted to *Conservation Letters*.
- 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, **MLWilkerson** & 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

### **FELLOWSHIPS and GRANTS**

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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2011	Spurr Service Award, Graduate Group in Ecology, UC Davis
	Presented to a currently enrolled student for outstanding accomplishment in outreach
2011	Niering Award for Best Student Presenter, 4 <sup>th</sup> 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
	Awarded to .1% of graduating class
2006	Joynes Award for Creative Thesis for Plan II Honors, UT Austin

#### PAST EMPLOYMENT

Mar-May 2007	<b>Research Assistant</b> , 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	<b>Seasonal Biological Technician</b> , 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.

Student Conservation Association (SCA) intern, SCA-funded, Wichita Mountains May-Aug 2004 National Wildlife Refuge, OK.

petiolata populations in Western Massachusetts

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

### **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 Hebrew skills (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* journal

SERVICE	
2012-present	Conference Coordinator, Society for Conservation Biology Chapters Committee Organizing chapter-specific events (mixers, business meetings, talks, posters, etc.) at international and regional conferences; organized workshop at ICCB 2013 and symposium at NACCB 2014; co-chaired administration of Chapter Awards and volunteers at ICCB 2013, NACCB 2014, & SCBO 2014
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, coorganizer for public education seminar initiative in summer 2011. Started position of Volunteer Coordinator in 2008, co-committee chair for fundraising and 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	<b>Co-founder and member</b> , 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	<b>Group mentor</b> , 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
2008, 2011-2013	Reviewer for Graduate Group in Ecology admissions.

### **PRESENTATIONS**

- **Wilkerson, ML** 2014. <u>Invited speaker</u>. 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. <u>Guest lecture</u>. 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. <u>Invited speaker</u>. 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. 26<sup>th</sup> International Congress for Conservation Biology (ICCB), Baltimore, MD.
- **Wilkerson, ML\***, K Ward, N Williams, K Ullmann & TP Young. 2013. Oral presentation. Rewilding Central Valley field margins with native forbs. 20<sup>th</sup> 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. 97<sup>th</sup> 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? 25<sup>th</sup>ICCB, Auckland, New Zealand.
- **Wilkerson, ML** 2011. Oral presentation. The importance of landscape context in invasive plant patterns within conservation linkages. 20<sup>th</sup> California-Invasive Plant Council Symposium (Cal-IPC), Tahoe City, CA.
- **Wilkerson, ML\***, K Ullmann, C Kremen & TP Young. 2011. <u>Award-winning oral presentation</u>. Planting California hedgerows: native forb mix success at different densities. 4<sup>th</sup> 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. 96<sup>th</sup> 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.
- **Wilkerson, ML** 2010. Oral presentation. Downsides to landscape connectivity: examining plant invasion potential in conservation linkages. 95<sup>th</sup> Annual Meeting of the ESA, Pittsburgh, PA.
- **Wilkerson, ML** 2010. <u>Guest lecture</u>. 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. <u>Invited speaker</u>. Downsides to corridors: examining plant invasion potential in linear biodiversity features. 3<sup>rd</sup> 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. 2<sup>nd</sup> 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; 94<sup>th</sup>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. 93<sup>rd</sup> 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. <a href="http://maritwilkerson.com/outreach-and-service/general/">http://maritwilkerson.com/outreach-and-service/general/</a>
- "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.
- "Climate Change and Conservation." 2011. Co-organizer and presenter of Conservation Connoisseur Seminar Series. 2-part **public seminar** held at Davis City Library.

Spring 2009

- "Assessing species and reserve vulnerability to climate change in the Willamette Valley ecoregion."

  2011. Led workshop organization with Art Martin and key partners from Oregon Dept. of Fish and
  Wildlife and 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 campus.
- 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**

Ecology. UC Davis course.

Half-day workshop at International Congress for Conservation Biology: "New media July 2013 matters: communicating conservation research & ideas." Led by Dr. Kate Christen of Smithsonian-Mason School of Conservation. Held in Baltimore, Maryland. Translating Research Beyond Academia seminar series: "Communicating with Spring 2012 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. Held in 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. Held at Bodega Marine Lab, Bodega Bay, CA.

Student participatory seminar: "Broader Impacts." Sponsored by Graduate Group in

# **REFERENCES**

Truman Young <a href="mailto:tpyoung@ucdavis.edu">tpyoung@ucdavis.edu</a>
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