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- EDUCATION**
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| 2012 | PhD, Biology, Stanford University
<i>Dissertation:</i> Ecosystem assembly in California: Linking pattern to process at the landscape scale
<i>Advisors:</i> Chris Field & Greg Asner |
| 2004 | Masters of Environmental Management, Yale School of Forestry & Environmental Studies
<i>Masters Project:</i> Crotona Park Urban Forest Management Plan
<i>Advisor:</i> Mark Ashton |
| 2003 | BS, Yale University, Ecology & Evolutionary Biology
<i>Thesis:</i> Kauri (<i>Agathis australis</i>) growth in planted and natural stands: A promising native timber species for New Zealand |

RESEARCH FOCUS

My research aims to better understand and quantify ecosystem patterns and processes through the application of emerging technologies, including air- and space-borne remote sensing, spatial statistics, and process-based modeling. I am primarily focused on semi-arid and savanna-type ecosystems, however, some of my work is and has been in closed canopy forests.

POSITIONS HELD

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| 2015 - present | Assistant Professor (Michigan State University, Department of Geography, Environmental, & Spatial Sciences)
Affiliated faculty in the Program in Ecology, Evolutionary Biology, & Behavior and the Environmental Science & Policy Program |
| 2012 - 2014 | Advanced Study Program Postdoctoral Fellow (National Center for Atmospheric Research, Boulder, Colorado) |
| 2009 - 2012 | Interdisciplinary Graduate Fellow (Stanford University, California) |
| 2007 - 2009 | Kennedy Graduate Fellow (Stanford University, California) |
| 2005 - 2007 | Instructor (San Francisco City College, San Francisco, California) |
| 2005 - 2007 | GIS & Resource Management Technician (Golden Gate National Parks Conservancy, San Francisco, California) |
| 2003 - 2005 | Urban Forester (NYC Department of Parks & Recreation, New York) |

RESEARCH

PEER-REVIEWED PUBLICATIONS (* = student researcher)

- 2016 **Dahlin KM**, *Del Ponte D, *Setlock E & *R Nagelkirk (*in press*) Global patterns of drought deciduous phenology in semi-arid and savanna-type ecosystems. *Ecography*. DOI: 10.1111/ecog.02443 [Q1]

- 2016 **Dahlin KM** (*in press*) Spectral diversity area relationships for assessing biodiversity in a wildland-agriculture matrix. *Ecological Applications*. DOI: 10.1002/eap.1390 [Q1]
- 2015 **Dahlin KM**, Fisher RA & PJ Lawrence. Environmental drivers of drought deciduous phenology in the Community Land Model. *Biogeosciences*. 12: 5061-5074. DOI: 10.5194/bg-12-5061-2015 [Q1]
- 2015 Taylor PG, Asner GP, **Dahlin KM**, Anderson C, Knapp D, Martin R, Mascaro J, Chazdon RL, Cole RJ, Wanek W, Hofansel F, Malavassi E, Vilchez-Alvarado B, & AR Townsend. Landscape-scale controls on aboveground forest carbon stocks on the Osa Peninsula, Costa Rica. *PLOS-ONE*. 10(6): e0126748. DOI:10.1371/journal.pone.0126748 [Q1]
- 2015 Cleveland, CC, Taylor, P, Chadwick, KD, **Dahlin, KM**, Doughty, CE, Malhi, Y, Smith, WK, Sullivan, BW, Wieder, WR, & AR Townsend. A comparison of plot-based, satellite and Earth system model estimates of tropical NPP. *Global Biogeochemical Cycles*. 29(50): 626-644. DOI: 10.1002/2014GB005022 [Q1]
- 2014 **Dahlin KM**, Asner GP & CB Field. Linking vegetation patterns to environmental gradients and human impacts in a mediterranean-type island ecosystem. *Landscape Ecology*. 29(9): 1571-1585 [Q1]
- 2013 **Dahlin KM**, Asner GP & CB Field. Environmental and community controls on plant canopy chemistry in a Mediterranean-type ecosystem. *Proceedings of the National Academy of Sciences USA*. 110(17): 6895-6900. [Q1]
- 2012 **Dahlin KM**, Asner GP & CB Field. Environmental filtering and land-use history drive patterns in biomass accumulation in a mediterranean-type landscape. *Ecological Applications*. 22:104-118. [Q1]
- 2011 Mascaro J, Asner GP, Muller-Landau HC, van Breugel M, Hall J, & **KM Dahlin**. Controls over aboveground forest carbon density on Barro Colorado Island, Panama. *Biogeosciences*. 8:1615-1629. [Q1]
- 2010 Bendick R, **Dahlin KM**, Smoliak BV, Kumler L, Jones SS, Aktipis A, Fugate E, Hertog R, Moberg C & D Scott. Choosing carbon mitigation strategies using ethical deliberation. *Weather, Climate, & Society*. 2: 140-147. [Q1]

PUBLISHED DATA SETS, CODE, SHORT COURSES etc.

- 2016 Wasser L, **Dahlin KM** & NP Zimmerman NEON Data Institute 2016. <http://neon-workwithdata.github.io/neon-data-institute-2016/>
- 2016 **Dahlin KM**, Lepine LC, & SV Ollinger Data from: Spectral diversity area relationships for assessing biodiversity in a wildland-agriculture matrix. Dryad Digital Repository. <http://dx.doi.org/10.5061/dryad.r5b51>

OTHER PUBLICATIONS

- 2006 National Park Service. "Vegetation Community Classification: Mori Point, Golden Gate National Recreation Area."
- 2006 Golden Gate National Parks Conservancy. "Mori Point Restoration & Trail Plan Environmental Assessment." NEPA Environmental Impact Assessment. *GIS analysis*.
- 2005 Golden Gate National Recreation Area. "Bird Conservation & Management Plan for Historic Alcatraz Island." *GIS analysis*.
- 2005 **Dahlin KM**. "Fort Greene Park Urban Forest Management Plan." New York City Department of Parks & Recreation, Central Forestry & Horticulture Division.

- 2004 **Dahlin KM.** "Crotona Park Urban Forest Management Plan." New York City Department of Parks & Recreation, Central Forestry & Horticulture Division.
- 2001 **Dahlin KM.** "A Walk on the Wild Side" *The Washington Post*, p. B10.

PRESENTATIONS (first author is presenting author unless otherwise indicated)

- 2016 **Dahlin KM**, Swenson SC, Lombardozzi D & *A Kamoske. Seasonality of semi-arid and savanna-type ecosystems in an Earth system model. American Geophysical Union (AGU) Fall Meeting, San Francisco, California. [KMD invited]
- 2016 **Dahlin KM**, Asner GP, Mascaro J & P Taylor. Varying influence of environmental gradients on vegetation patterns across biomes. AGU Fall Meeting, San Francisco, California. [KMD invited]
- 2016 Hardiman BS, Atkins J, **Dahlin KM**, Fahey RT, & CM Gough. Canopy structural complexity influences forest canopy reflectance: linking terrestrial lidar with Landsat observations. AGU Fall Meeting, San Francisco, California.
- 2016 **Dahlin KM**, *Del Ponte D, *Setlock E & *R Nagelkirk (2016) Global patterns of phenology in semi-arid and savanna-type ecosystems: a meta-analysis. Ecological Society of America (ESA) Annual Meeting, Ft. Lauderdale, Florida.
- 2015 **Dahlin KM** & TR Ault. Climate teleconnections and the biosphere. AGU Fall Meeting, San Francisco, California.
- 2015 **Dahlin KM.** Hyperspectral imagery for biodiversity mapping in a wildland-agriculture matrix. ESA Annual Meeting, Baltimore, Maryland.
- 2015 Wasser LA, Serbin SP, **Dahlin KM**, Roth KL, Leisso N & S Petroy. From point to pixel: Using in situ measurements to validate and derive higher level NEON hyperspectral data products. ESA Annual Meeting, Baltimore, Maryland.
- 2015 **Dahlin KM**, RA Fisher & PJ Lawrence. Ecological consequences of altering the drought deciduous phenology algorithm. Community Land Model Working Group Winter Meeting, Boulder, Colorado.
- 2014 **Dahlin KM.** What is hyperspectral remote sensing? An introduction (Ignite talk). ESA Annual Meeting, Sacramento, California.
- 2014 **Dahlin KM** & RA Fisher. Impacts of changing drought deciduous phenology in the Community Land Model. ESA Annual Meeting, Sacramento, California.
- 2014 **Dahlin KM** & RA Fisher. Stress deciduous phenology in the CLM. Community Land Model Working Group Winter Meeting, Boulder, Colorado.
- 2013 **Dahlin KM** & RA Fisher. Phenology of forest-grassland transition zones in the Community Land Model. AGU Fall Meeting, San Francisco, California.
- 2013 Townsend AR, Cleveland CC, Taylor PG, **Dahlin KM**, Wieder WR, Smith WK, Sullivan BW, Chadwick KD & CE Doughty. An inter-comparison of plot-scale, satellite and earth system model estimates of tropical net primary productivity. AGU Fall Meeting, San Francisco, California.
- 2013 **Dahlin KM** & RA Fisher. Seasonal patterns in forest-grassland transition zones predicted by the Community Land Model. ESA Annual Meeting, Minneapolis, Minnesota.
- 2013 **Dahlin KM** & RA Fisher. Seasonal vegetation patterns in the Community Land Model. 18th Annual Community Earth System Model Workshop, Breckenridge, Colorado.

- 2012 **Dahlin KM**, Asner GP & CB Field. Environmental controls on plant chemical traits: Using the CAO-VSWIR to characterize patterns in a mediterranean-type ecosystem. AGU Fall Meeting, San Francisco, California.
- 2012 **Dahlin KM**, Asner GP & CB Field. Remote sensing of canopy chemistry and community composition in a mediterranean-type landscape using high-fidelity imaging spectroscopy from the Carnegie Airborne Observatory. ForestSAT Conference, Oregon State University, Corvallis, Oregon.
- 2012 **Dahlin KM**, Asner GP & CB Field. Ecosystem assembly meets geostatistics: Using airborne remote sensing and simultaneous autoregression to understand vegetation patterns in a recently disturbed landscape. ESA Annual Meeting, Portland, Oregon.
- 2011 **Dahlin KM**, Anderegg W, Hernandez RR, Hiza N, Johnson JE, Maltais-Landry G, Wolf A & N Zimmerman. Prospects for integrating utility-scale solar photovoltaics and industrial agriculture in the U.S. AGU Fall Meeting, San Francisco, California.
- 2011 **Dahlin KM** & GP Asner. Plant species mapping using integrated airborne lidar and hyperspectral imagery across multiple functional groups. ESA Annual Meeting, Austin, Texas.
- 2011 Mascaro J, Asner GP, Muller-Landau HC, van Breugel M, Hall J & **KM Dahlin**. Controls over aboveground forest carbon density on Barro Colorado Island, Panama. ESA Annual Meeting, Austin, Texas.
- 2011 Klosterman S, **Dahlin KM**, Field C, Berry J, Hebert T, Easter S & R Genova. Using hyperspectral and digital camera images to quantify yellow star-thistle invasion of a California grassland eddy covariance site. Fluxnet Workshop, University of California, Berkeley.
- 2011 **Dahlin KM**, Asner GP & CB Field. Vegetation Patterns in California Ecosystems. Chi Conference, Stanford University, California.
- 2010 **Dahlin KM** & GP Asner.. Integrated airborne remotes sensing and multiple endmember spectral mixture analysis (MESMA) for plant species mapping across multiple functional groups. AGU Fall Meeting, San Francisco, California.
- 2010 **Dahlin KM**, Asner GP & CB Field. Quantifying the effects of topography, substrate, and land-use history on aboveground biomass in a California ecosystem. ESA Annual Meeting, Pittsburgh, Pennsylvania.
- 2010 **Dahlin KM**, Bendick R, Kumler L, Aktipis A, Jones S, Smoliak B, Fugate E, Moberg C & D Scott. Using web-based tools and ethical deliberation to stabilize the climate. ST Global Conference, Washington, D.C.
- 2009 **Dahlin KM**, Asner GP & CB Field. Topographically mediated controls on aboveground biomass in a mediterranean-type climate. AGU Fall Meeting, San Francisco, California.
- 2008 **Dahlin KM**, Asner GP, Field CB & R Shaw. Using airborne remote sensing to map sweet fennel (*Foeniculum vulgare*) on Santa Cruz Island. California Invasive Plant Council Symposium, Chico, California.

GRANTS (funded, external; TOTAL: \$150,441)

- 2016 US NASA Biodiversity. *Connecting biodiversity, geodiversity, and remote sensing across scales*. Submitted 3/18/2016. PI: P Zarnetske (MSU FOR & FW), Co-Is: **KM Dahlin**, S Record (Bryn Mawr College). \$150,441.

GRANTS (funded, internal; TOTAL: \$92,324)

- 2016 MSU ESPP VISTAS travel grant. *Linking intraspecific trait variation with ecosystem function at the continental scale*. P Zarnetske (MSU FOR & FW; lead), **KM Dahlin**, Q Read (MSU FOR), J Grady (Bryn Mawr College). \$2,324.
- 2015 MSU WaterCube. Group: **KM Dahlin** (lead), P Sorrano, KS Cheruvellil, PL Zarnetske. \$20,000 per investigator, \$80,000 total.
- 2014 MSU ESPP-AgBioResearch ITBI. *A team for coupled human and environmental macrosystems (TeamCHEMS) in a changing globe*. Co-leaders J Chen & E Moran, team member: **KM Dahlin**, et al. \$10,000 total

INVITED SEMINARS

- 2016 Ecology & Evolutionary Biology Department, University of Michigan, Ann Arbor, MI; Geography Department, Western Michigan University, Kalamazoo, MI, Ecology, Evolutionary Biology & Behavior Program, Michigan State University, East Lansing, MI.
- 2014 Geography Department, Indiana University, Bloomington, IN; Geography Department, University of Colorado, Boulder; Biology Department, University of New Mexico, Albuquerque, NM; Department of Geography, Michigan State University, East Lansing, MI; Division of Geological and Planetary Sciences, CalTech, Pasadena, CA.
- 2013 National Ecological Observatory Network, Boulder, CO; 'Trailblazing: Stanford's Jasper Ridge and Global Environmental Challenges,' Stanford, CA.
- 2012 Chevron Corporation, San Ramon, CA; San Francisco Botanical Garden Society, San Francisco, CA.
- 2011 Jasper Ridge Biological Preserve Monthly Seminar, Woodside, CA

FIELD EXPERIENCE

University of Michigan Biological Station (2016) Ground based LiDAR surveys.

Jasper Ridge Biological Preserve, California (2008-2011). Plant biomass surveys, species mapping, and vegetation collection for chemical analysis

Santa Cruz Island, California (2007-2011). Week to month-long vegetation surveys

Golden Gate National Recreation Area, California (2005-2007). Invasive plant surveys, restoration planning and implementation, trail construction, historical preservation

Davis Mountains, Texas (Summer 2004). Vegetation surveys

Crotona Park, Bronx, New York (Summer 2003). Urban forest census

Hunua Range, New Zealand (Fall 2002). Plantation forest surveys

Hubbard Brook LTER, New Hampshire (Summer 2002). Forest surveys, soil sampling

TEACHING

- MSU Teaching (Student Instructional Rating System (SIRS) scores range from 1 to 5, 1 is best, 5 is worst based on 14 Department-specific questions)
- *GEO 401 Geography of Plants of North America (soon to be Global Plant Geography), started Fall 2015, taught odd falls (SIRS - 2015 [6 students]: 1.21)*
 - *GEO 424 Advanced Remote Sensing, started Spring 2016, taught annually (SIRS - 2016 [15 students]: 1.24)*

- *GEO 837 Remote Sensing of the Biosphere, new course developed by KMD, started Fall 2016, taught even falls*
- *ISS 310 People and the Environment, started Spring 2017*
- *GEO 827 Digital Image Processing & Analysis – 2 guest lectures and labs (Fall 2015)*

ADVISING & STUDENT COMMITTEES

Ryan Nagelkirk – Geography PhD student (advisor, 2015 – present)

Aaron Kamoske – Geography MS student (advisor, 2016 – present)

Suyog Chaudhari – CEE MS student (tentative committee member, 2016 – present)

Eric Clark – Forestry PhD student (tentative committee member, 2016 – present)

Farshid Felfelani – CEE PhD student (tentative committee member, 2016 – present)

Daphna Gadoth – Forestry MS student (committee member, 2016 – present)

Brad Peter – Geography PhD student (committee member, 2016 – present)

SERVICE, LEADERSHIP & DEVELOPMENT

MSU Service

- *GEO Meet the Faculty Co-Coordinator, fall semesters (2015 -)*
- *GEO Department IT Committee (2015-)*
- *GEO Supporting Women in Geography (SWIG) faculty member (2015-)*
- *GEO Grad Student Presentation Competition Judge (2016-)*
- *ESPP Fate of the Earth Nominations Committee (2015)*

National Ecological Observatory Network (NEON)

- *'#WorkingWithData' Institute Faculty Leader (June 21-25, 2016)*
- *Biogeochemistry Working Group member (2016-)*

Integrated Network for Terrestrial Ecosystems Research on Feedbacks to the Atmosphere and Climate (INTERFACE) [NSF Research Coordination Network]

- *Working group co-leader 2016*

ESA Session Chair/Co-Chair

- *Airborne remote sensing for 21st century ecology 2016 (chair)*
- *Hyperspectral remote sensing data supports 21st century ecological research 2015 (co-chair)*
- *Airborne Hyperspectral Remote Sensing of Terrestrial Ecosystems 2014 (chair)*

NASA Proposal Reviews

- *Postdoctoral Program Application Reviews 2016: 2*
- *Earth Science Applications Panel 2013*

Ecological Society of America SEEDS Mentor

- *SEEDS = Strategies for Ecology Education, Diversity, & Sustainability*
- *At-meeting mentor for undergraduate first-time attendees of the ESA Annual Meeting 2010-2013, 2015 (mentor positions are competitive – I applied but was not selected in 2016)*

Earth Science Women's Network Member & Volunteer

- *Volunteer for web development, diversity task force, discussion leading, and job resources. (2015-)*

MANUSCRIPT REVIEWER for *Biogeosciences, Ecological Applications (3), Ecosphere (3), Ecology & Evolution, Forest Ecology & Management, Frontiers in Ecology and the Environment, Frontiers in Plant Science, Global Biogeochemical Cycles, International Journal of Geographical Information Science,*

Journal of Geophysical Research – Biogeosciences, Landscape Ecology (2), *MSU ReCUR, Nature Communications, New Phytologist* (3), *Remote Sensing*

SOCIETY MEMBERSHIPS: Ecological Society of America, American Geophysical Union, American Association for the Advancement of Science, Association of American Geographers, American Society for Photogrammetry and Remote Sensing.

SPECIALIZED EDUCATION

Extracting Information from LiDAR Data (October 2014), Exelis, Boulder Colorado.

Preparing for an Academic Career in the Geosciences (July 2013). National Association of Geoscience Teachers, On the Cutting Edge Program, Boulder, Colorado.

Stanford Graduate School of Business Leadership Labs (July 2012). Stanford, California.

Complex Systems Summer School (June 2010). Santa Fe Institute, Santa Fe, New Mexico.

Debating Science: Practical Reason and the Climate Change Debate (August 2008). University of Montana, Missoula.

EcoQuest Applied Field Studies Program (Fall 2002). University of New Hampshire, Kaiaua, New Zealand.

MSU WORKSHOPS

2015

Survive and Thrive in the MSU Tenure System (2/19/2015)

Lilly Seminar: Promoting Students' Motivation and Engagement (3/25/2015)

NSF Grant Writing Workshop (8/18/2015)

Getting Started at MSU: Syllabus Design and Regulations to Protect Student Information (8/19/2015)

Active Shooter and Emergency Response Training (8/21/2015)

MSU New Faculty Orientation (8/25/2015)

Technology Workshop (8/26/2015)

2016

Write Winning Grant Proposals with Grant Writers' Seminars and Workshops LLC (1/7/2016)

CSS Mentoring Lunch: Juggling demands and managing your time: How to balance research, teaching, mentoring, and service as an early-career faculty member (3/17/2016)

AWARDS, TEACHING, & SERVICE PRIOR TO 2015

GRANTS, FELLOWSHIPS & AWARDS (pre-2015)

Climate and Global Change Postdoctoral Fellowship (National Oceanic and Atmospheric Administration, 2014) - *declined*

Society of Fellows Postdoctoral Fellowship (University of Michigan, 2014) - *declined*

Advanced Study Program Postdoctoral Fellowship (National Center for Atmospheric Research, 2012-2014)

NSF Doctoral Dissertation Improvement Grant (2011-2013) \$9,652

EcoEvo Departmental Travel Funds (Stanford University, 2011) \$600

Interdisciplinary Graduate Fellowship (Stanford University, 2009-2012) *tuition & stipend*

Excellence in Teaching Award (Stanford University, Department of Biology, 2008)

AW Mellon Research Grant for research at Jasper Ridge Biological Preserve (Stanford University, 2008 & 2009) \$4,600

Kennedy Graduate Fellowship (Stanford University, 2007-2009) *tuition & stipend*

YSF&ES Scholarship (Yale School of Forestry & Environmental Studies, 2003-2004) \$5,000

Summer Internship Fund (Yale School of Forestry & Environmental Studies, 2003) \$1,500

Thoreau Research Fellowship (Environmental Studies Department, Yale University, 2002) \$800

TEACHING & SERVICE (pre-2015)

Stanford University Teaching

- *GES 7a: Introduction to Wilderness Skills, guest lecture on Ecosystems of California. Fall 2011.*
- *BIO 44Y: Ecology Lab coordinating TA. Winter/Spring 2008, 2009 & 2011.*
- *BIO 125: California Ecosystems TA. Spring 2009.*

City College of San Francisco Instructor

- *Taught weekend-long field ecology courses: the Ecology of San Francisco Bay (Fall 2006 & 2007) and the Ecology of the Golden Gate National Recreation Area (Fall 2005 & 2006)*

Yale School of Forestry & Environmental Studies Teaching

- *Terrestrial Ecosystem Ecology TA. Fall 2003.*

Community Land Model Tutorial

- *Taught the phenology and 'Model data analysis in R' portions of this week-long tutorial 2014*

NCAR Advanced Study Program

- *Girl Scouts at NCAR volunteer 2014*
- *Activities Committee 2012-2013*
- *Thompson Lecture Series Committee 2013-2014*

Stanford WISE Group member

- *Women in Science & Engineering group member 2008-2012*

Stanford University Earth Systems Undergraduate Research Advising

- *Advised five undergraduate students in independent research projects. Summers 2008, 2009, & 2011.*

Golden Gate National Parks Conservancy Volunteer Instructor

- *Taught orienteering & map reading to high school students who were part of a program to bring urban youth to the parks. Summer 2005-2007 & 2010.*