

KYLA MARIE DAHLIN

Department of Geography, Environment,
& Spatial Sciences
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- EDUCATION**
- | | |
|------|--|
| 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 from local to global scales through the application of emerging technologies, including air- and space-borne remote sensing, spatial statistics, and process-based modeling.

POSITIONS HELD

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|----------------|---|
| 2015 - present | Assistant Professor, Michigan State University, Department of Geography, Environment, & Spatial Sciences
Affiliated faculty in the Program in Ecology, Evolutionary Biology, & Behavior (EEBB) and the Environmental Science & Policy Program (ESPP) |
| 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

(* = ERSAM Lab student throughout CV; [Q# - Category] = Quartile from SCImago Journal Rank in specific category for publication year, see www.scimagojr.com)

- 201x Zarnetske PL, Read QD, Record S, Gaddis K, Pau S, Hobi M, Malone SL, Costanza J, **Dahlin KM**, Latimer A, Wilson AM, Grady JM, Ollinger S & A Finley. (*accepted*)
Connecting biodiversity and geodiversity with remote sensing across scales. *Global Ecology & Biogeography* [Q1 - Ecology]

- 201x Shiklomanov A, Bradley B, **Dahlin KM**, Fox A, Gough C, Hoffman F, Middleton E, Serbin S, Smallman L & WK Smith. (*accepted*) Enhancing global change experiments through integration of remote sensing techniques. *Frontiers in Ecology & the Environment* [Q1 - Ecology]
- 2019 Kamoske AG*, **Dahlin KM**, Stark SC, and SR Serbin. Leaf area density from airborne LiDAR: Comparing sensors and resolutions in a temperate broadleaf forest ecosystem. *Forest Ecology & Management*. 433: 364-375. DOI: 10.1016/j.foreco.2018.11.017 [Q1 - Forestry]
- 2018 LaRue E, Atkins J, **Dahlin KM**, Fahey RT, Gough CM, & B Hardiman. Linking terrestrial LiDAR with Landsat: Canopy structural complexity is associated with vegetation indices and spectral reflectance. *International Journal of Applied Earth Observation and Geoinformation* 73: 420-427. DOI: 10.1016/j.jag.2018.07.001 [Q1 - Global & Planetary Change]
- 2018 **Dahlin KM** & TR Ault. Global linkages between climate variability and the terrestrial biosphere. *International Journal of Applied Earth Observation and Geoinformation*. 69: 56-63 DOI: 10.1016/j.jag.2018.02.017 [Q1 - Global & Planetary Change]
- 2017 **Dahlin KM**, *Del Ponte D, *Setlock E & *R Nagelkirk. Global patterns of drought deciduous phenology in semi-arid and savanna-type ecosystems. *Ecography*. 40(2): 314-323. DOI: 10.1111/ecog.02443 [Q1 - Ecology] Ecography E4 Award Paper runner up.
- 2016 **Dahlin KM**. Spectral diversity area relationships for assessing biodiversity in a wildland-agriculture matrix. *Ecological Applications*. 26(8): 2758-2768. DOI: 10.1002/eap.1390 [Q1 - Ecology]
- 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 - Earth-Surface Processes]
- 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 - Agricultural & Biological Sciences]
- 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 - Global & Planetary Change]
- 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. DOI: 10.1016/j.jag.2018.07.001 [Q1 - Ecology]
- 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. DOI: 10.1073/pnas.1215513110 [Q1 - Multidisciplinary]

- 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. DOI: 10.1890/11-1401.1 [Q1 - Ecology]
- 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. DOI: 10.5194/bg-8-1615-2011 [Q1 – Earth-Surface Processes]
- 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. DOI: 10.1175/2010WCAS1036.1 [Q4 – Social Sciences; new journal in 2010]

BOOK CHAPTERS

- 2018 Mitchell JJ, Glenn NF, **Dahlin KM**, Ilangakoon NT, Dashti H & MC Maloney. Integrating hyperspectral and LiDAR data in the study of vegetation. In *Hyperspectral Remote Sensing of Vegetation, Volume I, 2nd Edition*. Thenkabail PS, Lyon JG, & A Huete (Eds) CRC Press - Taylor & Francis Group, New York & London. p. 449.

PUBLISHED DATASETS

- 2018 **Dahlin KM** & TR Ault. GeoTIFFs for 'Global linkages between climate variability and the terrestrial biosphere' International Journal of Applied Earth Observations and Geoinformation, accepted. Figshare. DOI: 10.6084/m9.figshare.5948404
- 2016 **Dahlin KM**, Lepine LC, & SV Ollinger. Data from: Spectral diversity area relationships for assessing biodiversity in a wildland-agriculture matrix. Dryad Digital Repository. DOI: 10.5061/dryad.r5b51

GRANTS (EXTERNAL)

- 2018 USDA NIFA Alfalfa and Forage Research Program. *Precision agriculture tools for optimizing alfalfa production and marketing*. 9/30/2018-9/29/2021. PD: Kim Cassida (MSU Extension), Co-PDs: Y Newman (UWisc – River Falls), AP Nejadhashemi (MSU BAE), **KM Dahlin**. \$299,977.
- 2017 US NSF MacroSystems. *MSB-ECA: Ecosystems in four dimensions: Measuring changes to forest structure and function in the Anthropocene*. 8/15/2017 – 7/31/2019. **PI: KM Dahlin**, Co-PIs: SC Stark (MSU FOR), SR Serbin (Brookhaven National Lab). \$299,950.
- 2017 US NASA Carbon Cycle Science. *Socioecological carbon production in managed agricultural-forest landscapes*. 1/13/2017 – 1/12/2020. PI: J Chen (MSU GEO), Co-Is: **KM Dahlin**, R John (MSU CGCEO). \$975,357
- 2016 US NASA Biodiversity. *Connecting biodiversity, geodiversity, and remote sensing across scales*. 8/12/2016 – 8/11/2018. PI: P Zarnetske (MSU FOR & FW), Co-Is: **KM Dahlin**, S Record (Bryn Mawr College). \$150,441.

GRANTS (INTERNAL)

- 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 Soranno, 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 & PANELS

- 2018 Department of Global Ecology seminar, Carnegie Institution for Science, Stanford, CA (5/15/2018)
Department of Forestry & Natural Resources seminar, Purdue University, West Lafayette, IN (3/27/2018)
- 2017 Department of Geography, University of Wisconsin, Madison: workshop and panel titled 'Graduate Professionalization in a Changing Institutional Climate' (3/10/2017)
Department of Biological Sciences seminar – student selected speaker, Wayne State University, Detroit, MI (11/13/2017)
- 2016 Ecology & Evolutionary Biology Department seminar, University of Michigan, Ann Arbor, MI (1/21/2016)
Geography Department seminar, Western Michigan University, Kalamazoo, MI (2/26/2016)
Ecology, Evolutionary Biology & Behavior Program seminar, Michigan State University, East Lansing, MI (4/28/2016)
- 2014 Geography Department seminar, Indiana University, Bloomington, IN (1/22/2014)
Geography Department seminar, University of Colorado, Boulder, CO (1/30/2014)
Biology Department seminar, University of New Mexico, Albuquerque, NM (2/13/2014)
Department of Geography seminar, Michigan State University, East Lansing, MI (2/27/2014)
Division of Geological and Planetary Sciences seminar, CalTech, Pasadena, CA (10/8/2014)
- 2013 National Ecological Observatory Network seminar, Boulder, CO (4/11/2013)
'Trailblazing: Stanford's Jasper Ridge and Global Environmental Challenges' talk, Stanford, CA (5/9/2013)
- 2012 Chevron Corporation seminar, San Ramon, CA (3/28/2012)
San Francisco Botanical Garden Society seminar, San Francisco, CA (7/14/2012)
- 2011 Jasper Ridge Biological Preserve Monthly Seminar, Woodside, CA (11/8/2011)

CONFERENCE PRESENTATIONS

(first author is presenting author unless otherwise indicated)

- 2019 Komoto K, Soldo L, Winkler J, Tang Y, Chilvers M & **KM Dahlin**. A climatology of the frequency and duration of high relative humidity events for the lower peninsula of Michigan. Association of American Geographers (AAG) annual meeting – *abstract submitted*.
- 2018 **Dahlin KM**, *Kamoske AG, Serbin SP & SC Stark. Within-canopy leaf functional traits from airborne remote sensing. American Geophysical Union (AGU) Fall Meeting, Washington, DC, USA. [*KMD invited*]

- 2018 **Dahlin KM**, Zarnetske PL, Record S, Read QD, Cooper LA, Costanza J, Finley A, Gaddis K, Grady JM, Hobi ML, Latimer A, Malone SL, Ollinger SV, Pau S & AM Wilson. Remotely sensed geodiversity for identifying and predicting biodiverse landscapes. AGU Fall Meeting, Washington, DC, USA.
- 2018 Hardiman B, LaRue E, Atkins J, Gough C, Fahey R, **Dahlin KM**, Wagner F & S Fei. Large-Scale Patterns and Landscape Variability of Forest Canopy Structure. AGU Fall Meeting, Washington, DC, USA.
- 2018 *Kamoske AG, **Dahlin KM**, Stark SC & SR Serbin. Leaf area density from airborne LiDAR: Comparing sensors and resolutions in a temperate broadleaf forest ecosystem. ForestSat 2018 Conference, College Park, MD, USA.
- 2018 *Nagelkirk RL & **KM Dahlin**. Woody cover through the trees: How much woody cover are we overlooking in African Savannas? ForestSat 2018 Conference, College Park, MD.
- 2018 **Dahlin KM**, *Kamoske AG, Serbin SP & SC Stark. Mapping leaf traits within and among forest canopies with airborne remote sensing. Ecological Society of America (ESA) annual meeting [*KMD invited*], New Orleans, LA, USA.
- 2018 LaRue EA, Atkins J, **Dahlin KM**, Fahey RT, Fei S, Gough CM & BS Hardiman. Linking Landsat to terrestrial LiDAR: Spectral indices of greenness and brightness are correlated with canopy structural complexity. ESA annual meeting, New Orleans, LA, USA.
- 2018 Record S, Read QD, Zarnetske PL, **Dahlin KM**, Costanza J, Gaddis K, Grady JM, Finley AO, Latimer AM, Malone S, Hobi ML, Ollinger S, Pau S & AM Wilson. The relationship between biodiversity and geodiversity along gradients of geodiversity and anthropogenic stress. ESA annual meeting, New Orleans, LA, USA.
- 2018 Stark SC, Prohaska N, Smith M, Shao G, Wu J, Albert L, **Dahlin KM**, Serbin SP & S Saleska. Towards remote estimation of phylloenvironments to assess forest function and dynamics in tropical forests. ESA annual meeting, New Orleans, LA, USA.
- 2018 *Twardochleb L, Read QD, Zarnetske PL, *Hiltner E, **Dahlin KM**, Cheruvelil K, Soranno P, & *A Kamoske. Scaling relationships between freshwater insect diversity and the terrestrial environment. Society for Freshwater Science annual meeting. Detroit, MI, USA.
- 2018 Reed DE, Chen J, Abraha M, Robertson GP & **KM Dahlin**. Multiple resource use efficiency (mRUE) in agriculture systems. 33rd Conference on Agricultural and Forest Meteorology. Boise, ID, USA.
- 2018 Read QD, Record S, **Dahlin KM**, Zarnetske PL, Malone SL, Gaddis K, Grady JM, Costanza J, Hobi ML, Latimer A, Pau S, Wilson AM, Finley A & S Ollinger. Geodiversity explains biodiversity. US International Association for Landscape Ecology annual meeting. Chicago, IL, USA.
- 2017 **Dahlin KM** & *RL Nagelkirk. Landscape- and regional scale controls on phenological diversity across East Africa. ESA annual meeting, Portland, Oregon, USA. [*KMD invited*]
- 2017 Record S, Zarnetske PL, **Dahlin KM**, Costanza JK, Finley AO, Gaddis K, Grady JM, Hobi ML, Malone S, Ollinger S, Pau S, Read QD, Turner W & AM Wilson. Connecting biodiversity, geodiversity, and remote sensing across scales. ESA annual meeting, Portland, Oregon, USA.

- 2017 **Dahlin KM** & *RL Nagelkirk. Modeling leaf phenological diversity across East Africa. Annual meeting of the Association for Tropical Biology and Conservation, Merida, Mexico. [*KMD invited*]
- 2017 Record S, Zarnetske PL & **KM Dahlin**. Connecting biodiversity, geodiversity, and remote sensing across scales. NASA Biodiversity Team meeting, Washington, DC, USA.
- 2017 Chen, J, **Dahlin KM**, John R, Shirkey G, Wu SR, Robertson P, Hamilton S, Cooper L, Lusch D, Karnieli A, Laforzezza R, & GS Labini. Socioecological Carbon Production in Managed Agricultural-Forest Landscapes. 2017 Joint NACP & AmeriFlux PI Meeting, North Bethesda, MD, USA.
- 2017 Chen, J, **Dahlin KM**, John R, Shirkey G, Wu SR, Robertson P, Hamilton S, Cooper L, Lusch D, Karnieli A, Laforzezza R, & GS Labini. Socioecological Carbon Production in Managed Agricultural-Forest Landscapes. Worldcover 2017 Conference, Rome, Italy.
- 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. Global patterns of phenology in semi-arid and savanna-type ecosystems: a meta-analysis. 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.

OTHER WRITING

- 2017 *Nagelkirk R & **KM Dahlin**. "Myriad phenological strategies in dry ecosystems." *Ecography* Journal Blog: <http://www.ecography.org/blog/myriad-phenological-strategies-dry-ecosystems>
- 2008 Falxa-Raymond N, Wooley L, & **Dahlin KM**. "St Nicholas Park Urban Forest Management Plan." New York City Department of Parks & Recreation, Central Forestry & Horticulture Division.
- 2006 National Park Service. "Vegetation Community Classification: Mori Point, Golden Gate National Recreation Area."
- 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.

FIELD EXPERIENCE

- Talladega National Forest, Alabama, and Oak Ridge National Lab, Tennessee (2018) Canopy foliar sampling for leaf traits
- 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

COURSES @ MSU

(syllabi for courses are available at <https://www.ersamlab.com/teaching.html>)

- GEO 401 Global Plant Geography (3 credit hours)
- GEO 424 Advanced Remote Sensing (4 credit hours)
- GEO 837 Remote Sensing of the Biosphere (3 credit hours)
- ISS 310 People and the Environment (4 credit hours)

- GEO 827 Digital Image Processing & Analysis – 2 guest lectures and labs (Fall 2015)
- GEO 221 Intro to Geographic Information – guest lectures (Fall 2017, 2018)

ADVISING & STUDENT COMMITTEES

Advisees

Donald Akanga – Geography PhD student (advisor, 2018 – present)
Aaron Kamoske – Geography PhD candidate (advisor, 2016 – present)
Ryan Nagelkirk – Geography PhD candidate (advisor, 2015 – present)

Committees

Dan Wanyama – Geography PhD student (committee member, 2018 – present)
Beth Gerstner – Forestry PhD student (committee member, 2018 – present)
Kara Komoto – Geography MS student (committee member, 2018 – present)
Amanda Kreuze – Geography PhD student (committee member, 2018 – present)
Gabriela Shirkey – Geography PhD student (committee member, 2018 – present)
Eric Clark – F&W PhD candidate (committee member, 2016 – present)
Farshid Felfelani – CEE PhD student (committee member, 2016 – present)
Brad Peter – Geography PhD candidate (committee member, 2016 – present)

Graduated Students

Gloria Desanker – Forestry MS (co-advised with Andy Finley, 2017 – 2018) *graduated*
Daphna Gadoth – Forestry MS (committee member, 2016 – 2017) *graduated*
Suyog Chaudhari – CEE MS (committee member, 2016 – 2017) *graduated*

Undergraduate Researchers

Sarah Igwe – Physiology undergraduate intern (June – August 2018)
Opal Jain – Plant Biology & Geography undergraduate intern (March – June 2018)
Logan Brissette – F&W undergraduate lab assistant (January – December 2017)
Emily Setlock – Geography undergraduate lab assistant (summer 2015)

SERVICE & OUTREACH

UNIVERSITY SERVICE

(^ = served as Affirmative Action representative)

- GEO Graduate Admissions Committee (2018 – present)
- GEO ad hoc Expectations & Merit Committee (2018 – present)
- GEO Supporting Women in Geography (SWIG) faculty member (2015 - present)
- GEO Grad Student Presentation Competition Judge (2016 – present)
- GEO Meet the Faculty Co-Coordinator, fall semesters (2015 - 2018)
- GEO Awards Committee (2018)
- ESPP Fate of the Earth poster presentation judge (2018)
- ^GEO RS&GIS Director Search Committee (2017)
- GEO Department ad hoc IT Committee (2015 - 2016)
- ESPP Fate of the Earth Nominations Committee (2015)
- Research Associate (postdoc) hiring committees: ^J Chen Lab, Stark Lab, ^PL Zarnetske Lab

NASA SURFACE BIOLOGY & GEOLOGY MISSION

- Algorithms Working Group member (2019- present)
- Applications Working Group member (2019-present)

NATIONAL ECOLOGICAL OBSERVATORY NETWORK (NEON)

- Airborne Sampling Technical Working Group member (2017- present; co-chair starting November 2018)
- LiDAR Sampling Technical Working Group member (2017- present)
- Biogeochemistry Working Group member (2016-2017) – disbanded due to change in working group structure.
- ‘#WorkingWithData’ Institute Faculty Leader (June 21-25, 2016)

COMMUNITY LAND MODEL (CLM) @ NATIONAL CENTER FOR ATMOSPHERIC RESEARCH

- Land model and biogeochemistry working group member (2012 - present)
- Named contributor to the development of CLM 5.0 (released in 2018)
- Participant in US Department of Energy sponsored workshop: ‘Disturbance and Vegetation Dynamics in Earth System Models’ (March 15-16, 2018; Gaithersburg, Maryland. ~30 attendees from DOE, NASA, and academia)
- CLM Tutorial Instructor on phenology and analyzing output in R (2014)

ECOLOGICAL SOCIETY OF AMERICA ANNUAL MEETING SESSION CHAIR/CO-CHAIR

- Organized Oral Session (OOS): Cutting-Edge Remote Sensing Applications in Ecology: Spanning Scales, Sensors, and Systems (session accepted for 2019, co-chair)
- OOS: Cutting-edge remote sensing applications in ecology: Spanning scales, sensors, and ecosystems. 2018 (co-chair)
- Special Session: How can current and future satellite missions advance biodiversity science? 2017 (chair)
- Ignite Session (IS): Connecting remote sensing to biodiversity science in the Anthropocene. 2017 (co-chair)
- OOS: Cutting edge remote sensing applications in ecology: Spanning scales, sensors, and ecosystems. 2017 (co-chair)
- OOS: Airborne remote sensing for 21st century ecology 2016 (chair)
- OOS: Hyperspectral remote sensing data supports 21st century ecological research 2015 (co-chair)
- IS: Airborne Hyperspectral Remote Sensing of Terrestrial Ecosystems 2014 (chair)

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

PROPOSAL REVIEWER for NSF Earth Sciences, DEB, Hydrologic Sciences; AAS; USDA NIFA; NASA Earth Science Applications, Postdoctoral Program.

MANUSCRIPT REVIEWER for *Biogeosciences* (3), *Ecography*, *Ecological Applications* (5), *Ecology & Evolution* (4), *Ecosphere* (3), *Forest Ecology & Management*, *Forests*, *Frontiers in Ecology and the Environment*, *Frontiers in Plant Science* (3), *Global Biogeochemical Cycles*, *International Journal of*

Geographical Information Science, Journal of Geophysical Research – Biogeosciences (3), Landscape Ecology (3), MSU ReCUR, Nature Communications (3), Nature Ecology & Evolution (2), New Phytologist (4), Proceedings of the National Academy of Sciences, Remote Sensing (4), Remote Sensing of Environment (5), Sensors (2), Trees – 10 reviews in 2015, 10 in 2016, 12 in 2017, 16 in 2018, 1 thus far in 2019.

ORGANIZATION MEMBERSHIPS: Ecological Society of America, American Geophysical Union, American Association of Geographers, American Society for Photogrammetry and Remote Sensing, Earth Science Women's Network, 500 Women Scientists

PRESS

Atkins, J (January 2, 2019) Episode 48: An interview with Kyla Dahlin. *Major Revisions Podcast*.
www.majorrevisionspodcast.com/episodes/ep-48-an-interview-with-kyla-dahlin

Kwok, R (April 3, 2018) Ecology's remote sensing toolbox. *Nature*. 56: 137-138. DOI: 10.1038/d41586-018-03924-9 [KMD interviewed for and quoted in article]

PROFESSIONAL DEVELOPMENT

SPECIALIZED EDUCATION

Intermediate Google Earth Engine Tutorial (December 2016), San Francisco, California

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

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)

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)

AWARDS, TEACHING, & SERVICE PRIOR TO 2015

GRANTS, FELLOWSHIPS, & AWARDS (PRE-2015)

Climate and Global Change Postdoctoral Fellowship, National Oceanic and Atmospheric Administration, 2014 – *offered and declined*

Society of Fellows Postdoctoral Fellowship, University of Michigan, 2014 – *offered and 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.*

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 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.*