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EDUCATION

University of California, Irvine, Irvine, CA
Ph.D., Earth System Science — **August 2006**

University of California, Davis, Davis, CA
B.S. Atmospheric Science — **June 2000**

PROFESSIONAL EXPERIENCE

Associate Professor, Management of Complex Systems — **Feb. 2020 - present**
University of California, Merced

Associate Professor, Department of Geography — **Aug. 2014 - Jun 2020**
University of Idaho

Assistant Professor, Department of Geography — **Aug. 2009 - Jul. 2014**
University of Idaho

Assistant Professor, Department of Meteorology — **Aug. 2008 - Aug. 2009**
San Jose State University

Postdoctoral Fellow — **Aug. 2006 - Jun 2008**
Desert Research Institute: advisor Dr. Kelly Redmond

Graduate Research Assistant — **Sep. 2001 - Aug. 2006**
University of California, Irvine: advisor Dr. Gudrun Magnusdottir

AWARDS

Outstanding Early Career Faculty Award, College of Science: **2012**
International Journal of Climatology Prize: **2015**
Mid Career Faculty Award, University of Idaho: **2016**
Visiting Scholar Fellowship, University of Tasmania: **2019**

REFEREED PUBLICATIONS

182. Anderegg W.R.L., **J.T. Abatzoglou**, L.D.L. Anderegg, L. Bielory, P.L. Kinney, L. Ziska, 2021, Anthropogenic climate change is worsening North American pollen seasons. Proceedings of the National Academy of Sciences, 118(7):e2013284118.

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6. **Abatzoglou, J.T.**, K.T. Redmond, 2007, The Asymmetry of Trends in Spring and Autumn Temperature and Circulation Regimes over Western North America, Geophy. Res. Lett., 34, L18808
5. **Abatzoglou, J.T.**; Book Chapter 2-3, 2007, Climate Change: What It Means for Us, Our Children, and Our Grandchildren, MIT Press
4. **Abatzoglou, J.T.**, G. Magnusdottir, 2007, Wave breaking along the stratospheric polar vortex as seen in ERA-40 data, Geophysical Research Letters, 34, L08812

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2. **Abatzoglou, J.T.**, G. Magnusdottir, 2006, Planetary Wave Breaking and Nonlinear Reflection: Seasonal Cycle and Interannual Variability, Journal of Climate, 19, 6139-6152
1. **Abatzoglou, J.T.**, G. Magnusdottir, 2004. Nonlinear planetary wave reflection in the troposphere. Geophysical Research Letters, 31, L091015

* indicates student or post-doc advisee

External Funding

33. Managing Future Risk of Increasing Simultaneous Megafires, NSF-GCR, Co-PI (2020-, $300,000)
32. Climate Impacts Research Consortium, NOAA, Co-PI (2020-,$130,000)
31. Improving drought indicators to support drought impact mitigation for natural resource management, NOAA, PI, (2020-, $150,000)
30. Advancing Drought Early Warning Systems, NOAA, Co-PI (2020-, $200,000)
29. Technology for trade: new tools and new rules for water use efficiency in agriculture and beyond, USDA, Co-PI (2018-, $140,000)
28. Analogs of Environmental Change for Natonal Park Service Units, National Park Service, PI (2018-, $120,000)
27. Climate Impacts Research Consortium 2, NOAA, Co-PI (2015-2020,$270,000)
26. Advancing Resilience to Compounding Disasters: An Integrated Natural-Human Systems Assessment of Wildfire Vulnerability, NSF Hazard SEES, Co-PI (2015-2020, $75,000)
25. Social-ecological-technological solutions to waste reuse in food, energy, and water systems (ReFEWS), Co-PI (2016-2020, $50,000)
24. Mapping the current and future suitability of specialty crop cultivation in the Northwest, USDA NW Climate Hub, PI (2017-2019, $40,000)
23. Development of a Drought Early Warning System for California-Nevada and the Pacific Northwest, NOAA, Co-PI (2016-2019, $150,000)
22. Collaborative Visualization of Projected Climatic Conditions and Related Risks for the Northwest US, USDA NW Climate Hub, PI (2015-2018, $87,000)
21. Cloud Computing Support for Drought Monitoring and Fallow Field Tracking, USGS, Co-PI (2015-2017, $80,000)
20. Understanding Climate and Land Use Drivers of Invasive-Grass Fueled Fires Across the Western U.S., NASA Terrestrial Ecology, Co-PI (2014-2018, $50,000)
19. Regional Approaches to Climate Change in Pacific Northwest Agriculture, USDA NIFA, Co-PI (2011- 2017, $350,000)
18. Disappearing refugia: identifying trends and resilience in unburned islands under climate change, USGS, (2014 - 2017, $15,000)
17. Evaluation and Downscaling of CMIP5 Climate Simulations for the Southeast U.S., PI (2014-2015 , $30,000)
16. Google Drought, Google Earth Engine Research Faculty Award, Co-PI (2014, $70,000)
15. Weather Data and Forecasting Applications for management of Ecological Site Transitions, USDA-NIFA, Co-PI (2013-2016, $120,000)
14. Climate Impacts Research Consortium, NOAA, Co-PI (2010-2015,$100,000)
13. Future mega-fires and smoke impacts, Joint Fire Science Program, Co-PI (2011-2015, $135,000)
12. Seattle Public Utility (SPU) Piloting Utility Modeling Applications (PUMA) project, Seattle Public Utilities, Co-PI, (2013-2014 , $43,000)
11. Integrated Climate Scenarios of the Pacific Northwest, USGS, Co-PI (2012-2014 , $45,000)

10. Extratropical Control of Gulf Surges: The Role of Rossby Wave Breaking and Associated Mesoscale Processes, NSF Climate and Large Scale Dynamics, PI (2008-2013, $202,938)
9. NSF EPSCoR Innovative Working Group, PI (2012, $8,000)
8. Climate Scenarios for Oregon and Washington, Bureau of Land Management, Co-PI (2012-2014, $20,000)
7. WestWide Drought Tracker: Monitoring Drought at Fine Spatial Scales Across the Western US, NOAA TRACS, PI (2008-2012, $125,000)
6. Downscaled datasets and evaluation for PUMA, Portland Water Bureau, PI, (2013-2014, $25,000)
5. Toward next generation downscaling for hydrologic prediction in the Pacific Northwest, USGS, Co-PI (2011-2014 $25,000)
4. Impacts of a Changing Climate on Water Resources in the Eastern Great Basin, Bureau of Reclamation, Co-PI (2011-2013, $86,000)
3. Understanding climate impacts on fuels management, Joint Fire Science Program, Co-PI, (2008-2012, $50,000)
2. USDA-Forest Service JVA, Fine Scale Climate Modeling, Agreement with Rocky Mountain Research Station, PI (2009-2012, $15,000)
1. Downscaling for Climate Change Assessment, USFS WWETAC, PI (2009-2011, $50,000)

* indicates Abatzoglou portion

Selected Invited Presentations 2016-present

12. Abatzoglou, J.T., How and where climate change enables changing fire activity, Kavli Frontiers of Science, National Academies of Sciences, July 2020
11. Abatzoglou, J.T., Climate driven fire hazards, Knowledge and Limitations, NOAA CLIVAR Predictability, Predictions, and Applications Interface, July 2020
10. Abatzoglou, J.T., State of NW Climate: The 2019 Edition, Northwest Climate Conference, Portland, OR, Oct 2019
9. Abatzoglou, J.T., A Future of Hotter, Longer, and More Synchronous Fire Seasons, Corvallis, OR, April 2019
8. Abatzoglou, J.T., Fire across scales, Hobart, Australia, Dec 2018
7. Abatzoglou, J.T., State of NW Climate: The 2018 Edition, Northwest Climate Conference, Boise, ID, Oct 2018
6. Abatzoglou, J.T., How much has human-caused climate change influenced wildfire extent across western US forests?, GFDL Science Seminar Series, Princeton, NJ, Oct 2017
5. Abatzoglou, J.T., Idaho's Changing Climate, Idaho Climate Hearing at State Capitol, Boise, ID, Mar 2017
4. Abatzoglou, J.T. and T.E. Link, The Changing Climate, Snow, and Flow in Idaho, Lewis-Clark State College Environmental Lecture Series, Lewiston, ID, Feb 2017
3. Abatzoglou, J.T., Parched and Drenched: Future Climate and Water Resources in the Pacific Northwest, NW Water and Climate conference, Skamania, WA, Jan 2017
2. Abatzoglou, J.T., A changing climate for agriculture: Tools for kick starting adaptation, Climate Learning Network webinar, Jun, 2016
1. Abatzoglou, J.T., Water Year 2015: A prototype year for future climate?, Spokane River Forum, Coeur d'Alene, ID, Mar 2016

Teaching Experience

Instructor

- Environmental Systems Science 110: Climate and Hydrology, UC Merced
- Environmental Engineering 116/ Environmental Systems 232: Applied Climatology, UC Merced
- Geography 100: Physical Geography, University of Idaho
- Geography 301: Meteorology, University of Idaho
- Geography 313/513: Global Climate Change, University of Idaho
- Geography 401: Climatology, University of Idaho
- Geography 404: Weather Analysis and Forecasting, University of Idaho
- Geography 501: Climate Seminar, University of Idaho
- Meteorology 112: Global Climate Change, San Jose State University
- Meteorology 171A: Synoptic Weather Analysis and Forecasting, San Jose State
- Meteorology 171B: Advanced Synoptic Weather Analysis and Forecasting, San Jose State
- Atmospheric Science 414/614: Physical Climatology, University of Nevada, Reno

Mentorship

- Ph.D. students (2): Abigail Lute*, Lauren Parker
- M.S. students (11): Joshua Clark, James Favors, Holly Diehl, Jeremy Jenkins, Andrew Joros, Jacob Wolf, Donovan VanSant, Stephen Gillis, Abigail Lute, Paige Farrell, Wenlong Feng
- Research Scientists (1): Katherine Hegewisch*
- Postdoctoral Researchers (3): Katherine Hegewisch, Lauren Parker, Renaud Barbero
- Undergraduate Researchers (6): Alexander Peterson, Stephen Gillis, Jet Johnstone, Blaise DeFranco, Valerie Laquindanum*, Jerry Addison*

* indicates current advisees

Service and Outreach

- Media Interviews: *Los Angeles Times, Orange Country Register, USA Today, National Public Radio, Reno Gazette Journal, Fresno Bee, Stockton Record, Climatewire, KLEW, Land Letter, Bay Citizen, Eastern Oregonian, Spokesman Review, Northwest News Network, Idaho Public Television, Northwest Public Radio, Earthfix, Saint Maries Gazette, Inland Northwest News, KTVB, Moscow-Pullman Daily News, Lewiston Tribune, Boise State Public Radio, Climate Central, KUOW, Seattle Times, Captial Press, Science News, Big Country News, Circle of Blue, Sandpoint Reader, Boise Weekly, Idaho Reports, InsideClimate News, Scientific American, FiveThirtyEight, Huntington Post, Washington Post, Yale Environment 360, The Atlantic, Vox, Washington Times*
- Journal Reviewer: *Geophysical Research Letters, Journal of Climate, Journal of Atmospheric Science, International Journal of Wildland Fire, The Quarterly Journal of the Royal Meteorological Society, International Journal of Climatology, Climatic Change, Journal of Geophysical Research-Atmospheres, Conservation Biology, Northwest Science, Fire Ecology, Rangeland Ecology and Management, Journal of American Water Resources Association, Bulletin of American Meteorological Society, Earth Interactions, Journal of Hydrometeorology, Journal of Applied Meteorology and Climatology, Biogeosciences, Journal of Applied and Theoretical Climatology, Computers and Geosciences, Proceedings of the National Academy of Sciences, Risk Analysis, Nature Geosciences, Current Climate Change Reports, International Journal of Biometeorology, Water Resources Research, Weather and Forecasting, PlosOne, Forest Ecology and Management, Journal of Water and Climate, Science Advances, Environment International, GeoHealth, New Phytologist, Global Change Biology, Climate Dynamics, Earth Interactions, IPCC, Nature Communications*

- Workshop and Conference Committees: Association of Pacific Coast Geographers committee 2010, AMS Fuels Treatment Planning in a Changing Climate Workshop 2011, AFE Fuels Treatment Planning in a Changing Climate Workshop 2011, NSF-EPSCoR Tristate session organizer 2012, NSF EPSCoR Innovative Working Group organizer 2012, Idaho Climate Forum organizer 2012, Northwest Climate Conference (chair 2015; commitee 2016-2017), Science Education contributor McCall Outdoor Science School

PRODUCTS

Climate Engine
Climate Toolbox
Gridded Surface Meteorological Data
CMIP5 Downscaled Climate Scenarios
California Climate Tracker
Westwide Drought Tracker
North American Freezing Level Tracker
ENSO Climate Risks
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