Christa M Anderson

EDUCATION

PhD **Stanford University** Environment and Resources

Concentration in Global Ecology; Land System Science

Dissertation: Land Use Allocation, Forest Carbon, and Deforestation

Committee: Chris Field, Eric Lambin, Greg Asner, Rodolfo Dirzo, Katharine Mach

MS Yale University Environmental Science

2009

2018

Thesis: Tree Density and Herbivore Habitat Use in a Savanna Ecosystem

BA Yale University Double major in Environmental Studies & History, with distinction 2007

PROFESSIONAL EXPERIENCE

World Wildlife Fund (WWF) San Francisco, CA

Global Science Research Fellow (Jun 2018-present)

Conduct research, writing and publishing peer-reviewed papers on climate change and land use Collaborate with Global Science team members and Chief Scientist on major research endeavors

US Forest Service International Programs Washington, DC

Climate Change Specialist (Oct 2011-Jul 2014)

Managed \$2 million Congo Basin REDD Readiness Program, funded by US Department of State Managed \$1.6 million Malawi REDD Readiness Program, funded by USAID

Implemented SilvaCarbon, a forest carbon monitoring and research program in Peru, Congo and Vietnam

World Bank Washington, DC

Junior Professional Associate, Cities and Climate Change (Jan 2010-Oct 2011)

Organized workshop in South Africa for 150 mayors, city officials and researchers on climate change Oversaw draft, review, and publication of Cities and Climate Change and Global Solid Waste Management

Maasai Wilderness Conservation Trust Iltilal, Kenya

Program Coordinator (Aug-Dec 2009); Development Associate (Jan-July 2009)

Managed conservation non-profit with 170 staff: assign staff duties; direct payment and purchasing Initiated new partnerships for funding and research; represented non-profit in regional meetings

World Resources Institute Washington, DC

Climate Finance Consultant (July-Dec 2009)

Researched and wrote paper on the status of climate finance negotiations prior to UNFCCC climate conference Created comprehensive chart of climate finance proposals for distribution at climate negotiations

United Nations Mission of East Timor New York, NY

Advisor (Sept 2008-Apr 2009)

Represented East Timor and its interests as a delegate to UN Climate Change Conference Organized and facilitated meeting of the 53 Asian Group representatives for January 2009

RESEARCH EXPERIENCE

Stanford University Stanford, CA

PhD Student (Sept 2014-May 2018)

Designed, conducted and published independent research

Project 1: Land use allocation and deforestation in the Peruvian Amazon; Project 2: Forest offsets partner climate change mitigation with conservation; Project 3: Air quality and environmental justice in climate change mitigation; Project 4: Sustainability commitments in commercial concessions in the Peruvian Amazon

Mpala Research Centre Laikipia District, Kenya

Researcher (Feb-May 2008)

Designed and conducted research on interactions between cattle grazing and herbivore land use in savannahs Oversaw three field assistants on data collection, data entry, and routine maintenance operations

Hubbard Brook Experimental Forest Woodstock, NH

Assistant Researcher (Jun-Aug 2007)

Surveyed tree species and assessed overall health of northern hardwood forest at Hubbard Brook Measured tree growth, recruitment, and mortality in the Hubbard Brook watershed

African People and Wildlife Fund Loibor Serrit, Tanzania

Researcher (Jun-Aug 2006)

Mapped habitat and population of Loibor Serrit region as part of an effort to predict predation hotspots Conducted case studies on large carnivore and livestock conflict to determine causes of and reduce predation

Yale University Office of Development New Haven, CT

Assistant Researcher (2003-2007)

Conducted biographical, financial and property research on potential individual and corporation donors

PUBLICATIONS & PRESENTATIONS

Publications

Anderson, CM, C Weber, C Fabricius, L Glew, JJ Opperman, P Pacheco, LH Pendleton, D Thau, SJ Vermeulen, MR Shaw. *In Press*. "Planning for change: Conservation impacts of climate overshoot"

Anderson, CM, RS Defries, R Litterman, PA Matson, DC Nepstad, S Pacala, WH Schlesinger, MR Shaw, P Smith, C Weber and CB Field. 2019. "Natural climate solutions are not enough" *Science*. DOI: 10.1126/science.aaw2741

Anderson, CM, GP Asner, and EF Lambin. 2019. "Lack of association between deforestation and either sustainability commitments or fines in private concessions in the Peruvian Amazon" *Forest Policy and Economics*. DOI: 10.1016/j.forpol.2019.03.010

Anderson, CM, KJ Kissel, CB Field, and KJ Mach. 2018. "Climate change mitigation, air quality, and environmental justice in California." *Environmental Science & Technology*. DOI: 10.1021/acs.est.8b00908

Anderson, CM, GP Asner, W Llactayo, and EF Lambin. 2018. "Overlapping land allocations reduce deforestation in Peru." *Land Use Policy*. DOI: 10.1016/j.landusepol.2018.08.002

Lalonde, Seth J, KJ Mach, **CM Anderson**, EJ Francis, DL Sanchez, CY Stanton, PA Turner, CB Field. 2018. "Limited Carbon Storage Potential from Forest Management in the Sierra Nevada: An Expert Elicitation." *Ecosphere*. DOI: 10.1002/ecs2.2321

Anderson, CM, CB Field, and KJ Mach. 2017. "Forest offsets partner climate change mitigation with conservation." *Frontiers in Ecology and the Environment*. DOI: 10.1002/fee.1515

Hoornweg, Daniel, Lorraine Sugar, Mila Freire, **Christa Anderson**, Perinaz Bhada, Claudia Lorena Trejos, Rutu Dave, and Marcus Lee. 2010. Cities and Climate Change. *World Bank Urban Development Knowledge Papers*. Vol. 10.

Darcy Newsome, Jennifer Hoyle, Tanya Rosen, Sristi Kamal, Rae Wynn-Grant, **Christa Anderson**, Emily Alcott, and Jessica Siegal. 2010. "Large Scale Conservation in the Greater Yellowstone Ecosystem, a Field Assessment and Recommendations." In *Integrating Science, Management, and Policy in the Common Interest*, Ed. Susan G. Clark, Aaron Hohl, Catherine Picard, and Darcy Newsome. Yale School of Forestry and Environmental Studies.

Conference Presentations and Invited Talks

Cooperative climate action: Linking global to local. USFS International Seminar on Climate Change, Sacramento, CA (April 2019)

Career Panel. Stanford Earth Research Review, Stanford, CA (April 2019)

Drivers of Deforestation in Peru: Impacts of Public and Private Governance (poster). American Geophysical Union, Washington, DC (December 2018)

New thinking on navigating the land-energy intersection. The Land Energy Nexus in Climate Change Mitigation, Low-Emissions Solutions Conference at GCAS, San Francisco, CA (September 2018)

Carbon dioxide removal: Rightsizing expectations. Engaging the US Environmental Community in the Assessment of Carbon Removal, Forum for Climate Engineering Assessment, Racine, WI (August 2018)

Forest offsets contribute to California's climate change goals. Society of American Foresters Conference, Albuquerque, NM (November 2017)

Forest offsets partner climate mitigation and conservation. Ecological Society of America Annual Meeting, Portland, OR (August 2017)

Land use allocation, forest carbon, and deforestation. Young Environmental Scholars Conference, Stanford, CA (February 2017)

Selected Media

VOA. "Planting trees to mitigate global warming" August 3, 2019. http://bit.ly/2PRLs78

Science Friday. "How much carbon do our forests capture?" February 1, 2019. https://bit.ly/2DOBjln

The Washington Post. "A controversial California effort to fight climate change just got some good news" August 21, 2017. http://wapo.st/2gEkahl

KPCC Public Radio "Take Two". "The carbon offset program might not be so bad after all, new study finds" interview with CM Anderson. August 23, 2017. http://bit.ly/2wD9n02

Scientific American. "Carbon Offsets Really Do Help Lower Emissions" August 15, 2017. http://bit.ly/2vAqeQy

Outreach

Video Interview: Field, Chris and **Anderson, Christa**; Video by Rob Jordan. 2019. Are Natural Climate Solutions Enough? http://bit.ly/2wClkg2

Public Comment: **Anderson, Christa**, Jason Perkins, Chris Field, Katharine Mach, Michael Wara. 2017. Comments on the 2017 Climate Change Scoping Plan Update: Natural and Working Lands GHG Emissions Reduction Goal. Comment to California Air Resources Board. (Written) http://bit.ly/2AB20dp

Public Outreach Research Brief: **Anderson, Christa**. Winter/Spring 2017. Forests Contribute to California's Climate Change Goals. Stanford Woods Institute for the Environment. http://stanford.io/2nZYAe8

Animation: Written by **Christa Anderson** and Rob Jordan; Animated by Kate Lamy. 2017. Growing Carbon Offsets on Trees. http://bit.ly/2yn0LZn

TEACHING EXPERIENCE

Stanford University Stanford, CA

Teaching Assistant (Jan-Mar 2017; Mar-Jun 2016)

2017 TA for Environmental Governance; 2016 TA for Research Approaches for Environmental Problem Solving

Center for Excellence in Education Dammam, Saudi Arabia

Biology Professor (July 2016)

Designed and taught one week biology course for 42 Saudi Arabian high school girls at University of Dammam

US Forest Service Washington, DC

International Seminar Coordinator (Apr 2012; May 2013)

Co-coordinated International Climate Change Seminar (2013) and Forest Carbon Study Tour (2012)

Yale University Department of Biology New Haven, CT

Teaching Fellow (Jan-May 2009)

Taught weekly discussion section of 16 undergraduates for the course Global Problems of Population Growth

Language Education Training Center Washington, DC

English Language Teacher, voluntary (2010-2014)

Taught weekly English Language class to 10-15 adult English learners

MENTORING

Caliber Teacher Champion (2019-2020)

Mentor one Caliber teacher and support classroom and teaching career in Vallejo, CA

Stanford Earth Summer Undergraduate Research program (SESUR) Student (2017)

Kendall Kissel, undergraduate research assistant

Project: What is the relationship between GHG emissions and co-pollutants at stationary emissions sources?

Pre-Major Advising Fellow (2017-2018)

Advise two second year undergraduate students on selecting classes and choosing a major

Muir Research Grant (2016)

Maria Marta Rey, undergraduate research assistant

Project: Deforestation and Private Land Concessions in the Peruvian Amazon

Enhancing Diversity in Graduate Education (EDGE) Mentor (2016-2018)

Mentor first and second year EDGE fellow

GRANTS & AWARDS

Graduate Study

E-IPER Collaboration Grant (2016) \$30,000

MUIR Woods Institute Grant (2016)

McGee Levorsen Research Grant (2015; 2016)

Foreign Language and Area Studies Fellowship, US Department of Education (2008-2009) \$43,000

Gaylord Donneley Prize for Distinguished Work in Environmental Studies (2007)

Parker Huang Travel Fellowship (2007) \$15,000

Carpenter Sperry Research Fellowship (2007)

Ezra Stiles Research Fellowship (2007)

Pre-Graduate Study

Paul Mellon Grant for Senior Research (2006)

Environmental Studies Internship Award (2006)

National Merit Scholarship (2003)

IBM Thomas J. Watson Scholarship (2003; 2004; 2005; 2006) \$32,000

Awards

US Forest Service Performance Award (2012)

World Bank Vice Presidential Team Award (2011)

World Bank Spot Award (2011)

DEPARTMENTAL & UNIVERSITY SERVICE

Enhancing Diversity in Graduate Education (EDGE) mentor (2016-2018)

Enhancing Diversity in Graduate Education (EDGE) mentor panelist (2017)

Women in Earth Science faculty lunch coordinator (2015-2017)

Stanford E-IPER Admissions committee (2016)

Stanford E-IPER seminar coordinator (2015-2016)

Carnegie Institution for Science seminar committee (2015-2016)

PROFESSIONAL AFFILIATIONS & ACTIVITIES

Member, Climate Change Research Program Advisory Committee, CA Strategic Growth Council (2018)

Reviewer, California's 4th Climate Change Assessment (2018)

Member, CALAND Technical Advisory Committee, California Natural Resources Agency, (2017-2018)

Member, Ecological Society of America (2017-Present)

Member, American Geophysical Union (2014-Present)

Member, Society of American Foresters (2012-Present)

Member, Forest Fire Lookout Association (2013-Present)

Participatory Budget Delegate, City of Vallejo (2018-2019); \$300,000 funding obtained for bike lanes

Coach, Girls on the Run Vallejo (2017)

High School Tutor, East Palo Alto Tutoring (2014-2016)

Citizen Forester, Casey Trees, Washington, DC (2010-2014)

Yale College Graduate Affiliate, Berkeley College (2008-2009)

Canoe Guide, Boundary Waters Canoe Area Wilderness (2004; 2005)

SKILLS

Language: Advanced Swahili; Proficient French; Proficient Spanish **Software**: *Mapping*: ArcGIS, ENVI; *Programming*: R, basic Unix