

Leopold Leaders 2012 All-Cohort Reunion



<http://leopoldleadership.stanford.edu>

June 22, 2012

Governor Jerry Brown
c/o State Capitol, Suite 1173
Sacramento, CA 95814

Dear Governor Brown:

We met this week with Dr. Anthony Barnosky, who informed us that you are seeking help in engaging the public on climate change and other environmental threats. Based on your past accomplishments toward improving our environment, we are eager to work with you.

We are Leopold Leaders, a group of 175 natural and social scientists committed to inspiring and leading change for the world's greatest environmental problems (<http://leopoldleadership.stanford.edu>). We are distinguished professors from across North America selected as Fellows for our academic excellence, expertise, and work towards bettering the environment. Twenty-seven of us live and work in California; many others of us pursue research and outreach in the state; and some of us grew up here.

Leopold Fellows are trained to apply scientific expertise to environmental problem-solving and we are accomplished researchers in our fields. We focus on issues that concern California and the world: water, climate, oceans, biodiversity, agriculture and energy. We translate environmental research to students, the public, natural resource managers, and policy-makers at all levels across the U.S. and internationally.

We share your concern about the deteriorating state of the environment and potential tipping points that the Earth is facing, and we share your commitment to resolving environmental problems. We agree that dialogs between government, industry, and scientists are vital to finding such solutions for California and the world.

We would like to offer ourselves as a resource and we append our names and affiliations below. To start, we attach several ideas and resources that might be helpful to you. We can compile a longer list if requested. Dr. Elizabeth Hadly (hadly@stanford.edu; cell 650-245-1775) has agreed to represent our group (she is a co-author on the *Nature* "Tipping Point" study and is also a Leopold Fellow). Feel free to direct any questions to her or to our Executive Director, Pam Sturner (pam.sturner@stanford.edu); indeed, any of us would be happy to speak with you directly about how the Leopold Fellows might contribute further.

Sincerely,

Members of the Leopold Leaders 2012 All-Cohort Reunion

Leopold Fellows present at the 2012 All-Cohort Reunion:

Peter Alpert, National Science Foundation
Mark Carr, University of California, Santa Cruz
Laurie Chan, University of Ottawa
Pat Conrad, University of California, Davis
Lisa Curran, Stanford University
Peter Doran, University of Illinois, Chicago
Jeff Dukes, Purdue University
Chris Field, Carnegie Institution for Science
Leah Gerber, Arizona State University
Nick Haddad, North Carolina State University
Elizabeth Hadly, Stanford University
David Hart, University of Maine
Jessica Hellmann, University of Notre Dame
Andrew Hoffman, University of Michigan
Gretchen Hofmann, University of California, Santa Barbara
Karen Holl, University of California, Santa Cruz
Tracey Holloway, University of Wisconsin
Beverly Law, Oregon State University
Dave Lea, University of California, Santa Barbara
Karen Lips, University of Maryland
Margaret Lowman, North Carolina State University
Pamela Matson, Stanford University
Susi Moser, Susanne Moser Research & Consulting, Santa Cruz, CA
Roz Naylor, Stanford University
Barry Noon, Colorado State University
Steve Palumbi, Stanford University
Julia Parrish, University of Washington
Jonathan Patz, University of Wisconsin
Dov Sax, Brown University
Josh Schimel, University of California, Santa Barbara
Dave Secord, University of Washington
Whendee Silver, University of California, Berkeley
Thomas Sisk, Northern Arizona University
Nancy Targett, University of Delaware
Jake VanderZanden, University of Wisconsin, Madison
Susan Williams, University of California, Davis
Elizabeth Wilson, University of Minnesota
Luis Zambrano, Universidad Nacional Autónoma de México

SHORT LIST OF COMMUNICATION RESOURCES FOR CLIMATE CHANGE

We have identified a few of the most informative and compelling resources that provide information about communicating climate change to a range of audiences, demonstrate scientific consensus on climate change and the need to reduce its primary drivers (human population and overconsumption), and illustrate concern about climate change from a diverse group of constituencies. We would be happy to provide a more thorough list of other similar resources if this would be useful.

Resources for Communicating about Climate Change

Skeptical Science (www.skepticalscience.com) - a list of the most common global warming myths and responses to these myths.

Climate Access (www.climateaccess.org) - a broad range of resources for those engaging the public in the transformation to low-carbon, resilient communities.

Real Climate (www.realclimate.org) - an information and commentary site maintained by climate scientists.

Demonstrations of Scientific Consensus

U.S. Scientists and Economists' Call for Swift and Deep Cuts in Greenhouse Gas Emissions (www.ucsusa.org/global_warming/solutions/big_picture_solutions/scientists-and-economists.html) - a letter endorsed by more than 2,000 scientists and economists with expertise relevant to understanding the scientific and economic dimensions of climate change, its impacts, and solutions.

Call from 105 Science Academies to World Leaders to Take Decisive Action on Population and Consumption at the Rio +20 Conference (www.interacademies.net/10878/19191.aspx)

Joint Statement by 13 World Scientific Academies on Climate Change and the Transformation of Energy Technologies for a Low Carbon Future (www.nationalacademies.org/includes/G8+5energy-climate09.pdf)

Statements of Concern about Climate Change Impacts from various Sectors of Society

Insurance Industry (www.zurich.com/NR/rdonlyres/E2B5B53E-11DB-47AF-91E4-01ED6A2BDCA3/0/ClimateRiskChallenge.pdf) - Zurich Financial report on the concerns about climate change.

U.S. Military (www.defense.gov/qdr/images/QDR_as_of_12Feb10_1000.pdf) - recent U.S. Department of Defense Report that identifies climate change as a threat to U.S. national security.

Religious Leaders (www.climateandenergy.org/FileLibrary/FileImage/ReligiousLeaders.pdf) - statement by major faith leaders summarizing their concern about climate change.

Youth (www.focusnation.org) - one of many youth-based groups focused on taking action to slow climate change. Focus the Nation aims “to accelerate transformation to a clean energy future by fostering connections between generations, and empowering young people through education, civic engagement, and action.”

Leopold Leadership Fellows

Stanford University	<p>Kevin Arrigo (oceans & coasts)</p> <p>Lisa Curran (agriculture & aquaculture, biodiversity, climate change, economics, forests, land use, natural resource management, oceans & coasts, public health, sustainability)</p> <p>Gretchen Daily (agriculture & aquaculture, biodiversity, economics, forests, land use, natural resource management, sustainability, urban issues)</p> <p>Christopher Field (natural resource management, oceans & coasts, public health, sustainability)</p> <p>Margot Gerritsen (climate change, energy, environmental education, oceans & coasts)</p> <p>Liz Hadly (biodiversity, climate change, natural resource management)</p> <p>Jonathan Koomey (air quality, climate change, energy)</p> <p>Pamela Matson (climate change)</p> <p>Fiorenza Micheli (biodiversity, natural resource management, oceans & coasts)</p> <p>Rosamond Naylor (agriculture & aquaculture)</p> <p>Stephen Palumbi (oceans & coasts, climate change)</p> <p>Terry Root (biodiversity, oceans & coasts, public health)</p>
Arizona State University	<p>Leah Gerber (biodiversity, natural resource management, oceans & coasts, sustainability)</p> <p>Marco Janssen (economics, natural resource management, public health, sustainability)</p> <p>Ann Kinzig (natural resource management, sustainability)</p> <p>Jingle Wu (biodiversity, climate change, land use, sustainability, urban issues)</p>
Brown University	Dov Sax (biodiversity)
California State University, Sacramento	Emir Macari (energy)
California State University, San Marcos	Victoria Fabry (oceans & coasts)
Carnegie Mellon University	<p>David Dzombak (energy)</p> <p>Jeanne VanBriesen (public health, urban issues)</p>
Cary Institute of Ecosystem Studies	William Schlesinger (air quality, climate change, energy, freshwater, land use, natural resource management, oceans & coasts, public health, urban issues)
Case Western University	Peter Whiting (freshwater, natural resource management)
Colorado State University	<p>Kathleen Galvin (air quality, land use, natural resource management, urban issues)</p> <p>Thompson Hobbs (biodiversity, climate change, forests, natural resource management, public health)</p> <p>Richard Knight (biodiversity, land use, natural resource management)</p> <p>Janice Moore (natural resource management, public health)</p> <p>Barry Noon (biodiversity, oceans & coasts)</p> <p>Dennis Ojima (climate change)</p> <p>LeRoy Poff (biodiversity, freshwater, natural resource management)</p> <p>Kathleen Sherman (agriculture & aquaculture, natural resource management)</p> <p>Diana Wall (agriculture & aquaculture, biodiversity, climate change, freshwater, natural resource management, public health, sustainability)</p>
Columbia University	<p>Ruth DeFries (climate change, land use)</p> <p>Shahid Naeem (agriculture & aquaculture, air quality, biodiversity, climate change, economics, energy, forests, freshwater, land use, natural resource management, oceans & coasts, public health, sustainability)</p>
Consejo Superior de Investigaciones Científicas	Enric Sala (biodiversity, natural resource management, oceans & coasts)
Cornell University	<p>Robert Howarth (agriculture & aquaculture, air quality, climate change, energy, freshwater, land use, oceans & coasts, sustainability, urban issues)</p> <p>Alison Power (agriculture & aquaculture)</p>

Duke University	James Clark (forests, oceans & coasts, public health) Martin Doyle (climate change, economics, freshwater, natural resource management, sustainability) Stuart Pimm (biodiversity, forests) Lincoln Pratson (energy) Martin Smith (agriculture & aquaculture, economics, natural resource management, oceans & coasts, sustainability)
Florida State University	Jeffrey Chanton (climate change, freshwater, natural resource management, oceans & coasts) Felicia Coleman (biodiversity, natural resource management, oceans & coasts)
Georgia Institute of Technology	Mark Hay (biodiversity, economics, freshwater, natural resource management, oceans & coasts)
Joint Global Change Research Institute	Richard Moss (climate change, oceans & coasts, public health)
Louisiana Universities Marine Consortium	Nancy Rabalais (biodiversity, climate change, environmental education, oceans & coasts)
Marine Biological Laboratory	Anne Giblin (climate change, freshwater, oceans & coasts)
McGill University	Elena Bennett (agriculture & aquaculture, biodiversity, environmental education, freshwater, land use, natural resource management, sustainability, urban issues)
Michigan State University	Jianguo Liu (biodiversity, forests, land use, natural resource management, sustainability, urban issues) Scott Swinton (agriculture & aquaculture, economics, natural resource management, sustainability)
National Center for Atmospheric Research	Joan Kleypas (biodiversity, climate change, oceans & coasts, sustainability) Patricia Romero-Lankao (climate change)
National Museum of Natural History	Nancy Knowlton (biodiversity, climate change, environmental education, natural resource management, oceans & coasts, public health)
North Carolina Museum of Natural Sciences	Margaret Lowman (biodiversity, climate change, environmental education, forests)
North Carolina State University	JoAnn Burkholder (agriculture & aquaculture, climate change, environmental education, freshwater, land use, natural resource management, oceans & coasts, public health) Nick Haddad (biodiversity, forests) Terri Lomax (agriculture & aquaculture)
Northern Arizona University	Paul Beier (biodiversity, climate change, land use, natural resource management) Laura Huenneke (sustainability) Bruce Hungate (climate change) Thomas Sisk (biodiversity, land use)
Northwestern University	Kimberly Gray (sustainability)
Ohio State University	Allison Snow (agriculture & aquaculture, biodiversity)
Oregon State University	Andrew Blaustein (biodiversity, freshwater, oceans & coasts, public health) Edward Brook (air quality, climate change, energy, oceans & coasts, public health) Selina Heppell (biodiversity, natural resource management, oceans & coasts) Mark Hixon (biodiversity, climate change, environmental education, natural resource management, oceans & coasts, public health, sustainability) Beverly Law (climate change) Steven Strauss (agriculture & aquaculture, energy, natural resource management) Dawn Wright (natural resource management, oceans & coasts)
Princeton University	Andrew Dobson (biodiversity, public health)
Purdue University	Jeffrey Dukes (biodiversity, climate change, land use)
Rice University	Pedro Alvarez (energy, freshwater, natural resource management, toxic chemicals & hazardous waste, urban issues)
Rutgers University	Steven Handel (urban issues)

Smith College	Thomas Litwin (biodiversity, environmental education, natural resource management)
Stony Brook University	David Conover (biodiversity, oceans & coasts) Dianna Padilla (agriculture & aquaculture, biodiversity, freshwater, oceans & coasts)
Susanne Moser Research & Consulting	Susanne Moser (climate change, environmental education, oceans & coasts, sustainability)
Swiss Federal Institute of Aquatic Science and Technology (Eawag)	Janet Hering (freshwater, natural resource management, public health, urban issues)
Texas A&M University	Robin Autenrieth (public health, toxic chemicals & hazardous waste) Andrew Dessler (climate change)
Tides Canada Foundation	David Secord (agriculture & aquaculture, biodiversity, environmental education, natural resource management, oceans & coasts, sustainability, urban issues)
Trent University	James Schaefer (biodiversity, forests, natural resource management)
Universidad Nacional Autónoma de México	Patricia Balvanera (biodiversity, climate change, forests, natural resource management, sustainability) Valeria Souza (biodiversity) Luis Zambrano González (freshwater)
University of Alaska, Fairbanks	Richard Boone (biodiversity, land use) Brenda Norcross (biodiversity, climate change, natural resource management, oceans & coasts, public health)
University of Alberta	Arturo Sanchez-Azofeifa (biodiversity, climate change, forests, natural resource management) Martin Sharp (climate change)
University of Arizona	David Breshears (climate change, forests, natural resource management) Julia Cole (climate change, natural resource management, oceans & coasts, public health)
University of British Columbia	Stephanie Chang (natural resource management, oceans & coasts, public health, sustainability, toxic chemicals & hazardous waste, urban issues) Simon Donner (agriculture & aquaculture, climate change, freshwater, land use, oceans & coasts, sustainability) Rashid Sumaila (economics)
University of British Columbia, Okanagan	Karen Hodges (biodiversity)
University of Calgary	Joseph Arvai (biodiversity, climate change, economics, energy, forests, land use, natural resource management, oceans & coasts, public health, sustainability, toxic chemicals & hazardous waste, urban issues)
University of California, Berkeley	Whendee Silver (agriculture & aquaculture, climate change, forests, land use, natural resource management, sustainability)
University of California, Davis	Patricia Conrad (agriculture & aquaculture, biodiversity, environmental education, freshwater, oceans & coasts, public health) John Largier (oceans & coasts) Debbie Niemeier (air quality, energy, land use, urban issues) John Stachowicz (biodiversity, climate change, natural resource management, oceans & coasts, sustainability) Susan Williams (agriculture & aquaculture, biodiversity, climate change, environmental education, oceans & coasts, public health)
University of California, Santa Barbara	Frank Davis (agriculture & aquaculture, biodiversity, climate change, forests, land use, natural resource management) Gretchen Hofmann (oceans & coasts) David Lea (climate change, energy, environmental education, oceans & coasts) Joshua Schimel (biodiversity, climate change)

University of California, Santa Cruz	Mark Carr (biodiversity, natural resource management, oceans & coasts) Karen Holl (biodiversity, forests, land use, natural resource management, oceans & coasts) Adina Paytan (air quality, biodiversity, climate change, energy, freshwater, natural resource management, oceans & coasts, public health)
University of Colorado, Boulder	Sharon Collinge (biodiversity, land use, natural resource management, public health, urban issues) Alan Townsend (climate change, forests, land use, public health, sustainability)
University of Colorado, Denver	Anne Chin (freshwater, land use, natural resource management, urban issues)
University of Connecticut	Margaret Rubega (natural resource management) Sandra Shumway (agriculture & aquaculture, environmental education, natural resource management, oceans & coasts, sustainability)
University of Delaware	Nancy Targett (biodiversity, oceans & coasts)
University of Florida	Edward Schuur (climate change)
University of Hawaii, Manoa	Hope Jahren (agriculture & aquaculture, climate change, forests, public health) Margaret McManus (biodiversity, land use, oceans & coasts) Robert Richmond (oceans & coasts)
University of Illinois at Chicago	Peter Doran (climate change, environmental education, freshwater, oceans & coasts, public health)
University of Illinois at Urbana-Champaign	Evan DeLucia (agriculture & aquaculture, air quality, climate change, energy, forests, natural resource management) Madhu Khanna (climate change, economics, energy, land use)
University of Maine	David Hart (agriculture & aquaculture, biodiversity, freshwater, land use, natural resource management, public health, urban issues)
University of Maryland	Karen Lips (biodiversity, climate change, forests, freshwater, natural resource management, public health, sustainability) Raghu Murtugudde (climate change, oceans & coasts, sustainability) Margaret Palmer (biodiversity, climate change, freshwater, land use, natural resource management, urban issues)
University of Massachusetts, Amherst	Peter Alpert (biodiversity, land use, natural resource management)
University of Massachusetts, Boston	Robyn Hannigan (agriculture & aquaculture, freshwater, oceans & coasts, public health)
University of Michigan	Robyn Burnham (biodiversity, climate change, forests, natural resource management) Andrew Hoffman (sustainability) Thomas Princen (economics, land use, natural resource management, sustainability, urban issues)
University of Minnesota	Jonathan Foley (climate change, land use) Sarah Hobbie (air quality, biodiversity, climate change, energy, oceans & coasts, public health) Paige Novak (freshwater, toxic chemicals & hazardous waste) Elizabeth Wilson (air quality, climate change, energy, sustainability)
University of Missouri-Columbia	Sandy Rikoon (agriculture & aquaculture, natural resource management, sustainability)
University of Nebraska, Omaha	John McCarty (agriculture & aquaculture, natural resource management)
University of New Orleans	Denise Reed (biodiversity, climate change, freshwater, natural resource management, oceans & coasts)
University of North Carolina at Chapel Hill	Greg Characklis (climate change, economics, energy, freshwater, natural resource management, urban issues)
University of North Carolina at Wilmington	Michael Mallin (freshwater, natural resource management, oceans & coasts)
University of Notre Dame	Jessica Hellmann (biodiversity, climate change, environmental education, land use, natural resource management, sustainability) David Lodge (biodiversity)

University of Oregon	Brendan Bohannon (agriculture & aquaculture, biodiversity, climate change, land use, sustainability)
University of Ottawa	Laurie Chan (air quality, biodiversity, climate change, freshwater, natural resource management)
University of Rhode Island	Laura Meyerson (biodiversity)
University of South Carolina	Brian Helmuth (biodiversity, climate change, environmental education, land use, natural resource management, oceans & coasts, public health)
University of the South Pacific	Elisabeth Holland (agriculture & aquaculture, air quality, climate change, energy, sustainability)
University of Utah	Nalini Nadkarni (biodiversity, forests, natural resource management, sustainability)
University of Washington	P. Dee Boersma (biodiversity, oceans & coasts, public health) Lisa Graumlich (forests, land use, oceans & coasts, public health) Dennis Hartmann (biodiversity, economics, freshwater, natural resource management, oceans & coasts) Robert Naiman (freshwater, land use) Julia Parrish (biodiversity, economics)
University of Wisconsin-Madison	Tracey Holloway (air quality, energy, public health, sustainability) Jonathan Patz (air quality, climate change, forests, land use, oceans & coasts, public health) Volker Radeloff (biodiversity, climate change, forests, land use, natural resource management, sustainability, urban issues) Emily Stanley (agriculture & aquaculture, freshwater, natural resource management) Philip Townsend (climate change, forests, freshwater, land use, natural resource management) Jake Vander Zanden (freshwater) Jack Williams (climate change, forests)
University of Wyoming	Edward Barbier (agriculture & aquaculture, biodiversity, economics, forests, freshwater) Stephen Jackson (biodiversity, climate change, environmental education, freshwater, natural resource management) Carlos Martinez del Rio (biodiversity, natural resource management, sustainability)
Virginia Institute of Marine Science, College of William & Mary	Elizabeth Canuel (oceans & coasts) Emmett Duffy (agriculture & aquaculture, biodiversity, energy, oceans & coasts, sustainability) Romuald Lipcius (biodiversity, natural resource management, oceans & coasts, sustainability)
West Virginia University	James McGraw (biodiversity, climate change)
Western Washington University	David Hooper (biodiversity, land use, natural resource management, sustainability)
Woods Hole Oceanographic Institution	Scott Doney (climate change, oceans & coasts, sustainability) Christopher Reddy (energy, freshwater, oceans & coasts)
Yale University	Karen Seto (sustainability)