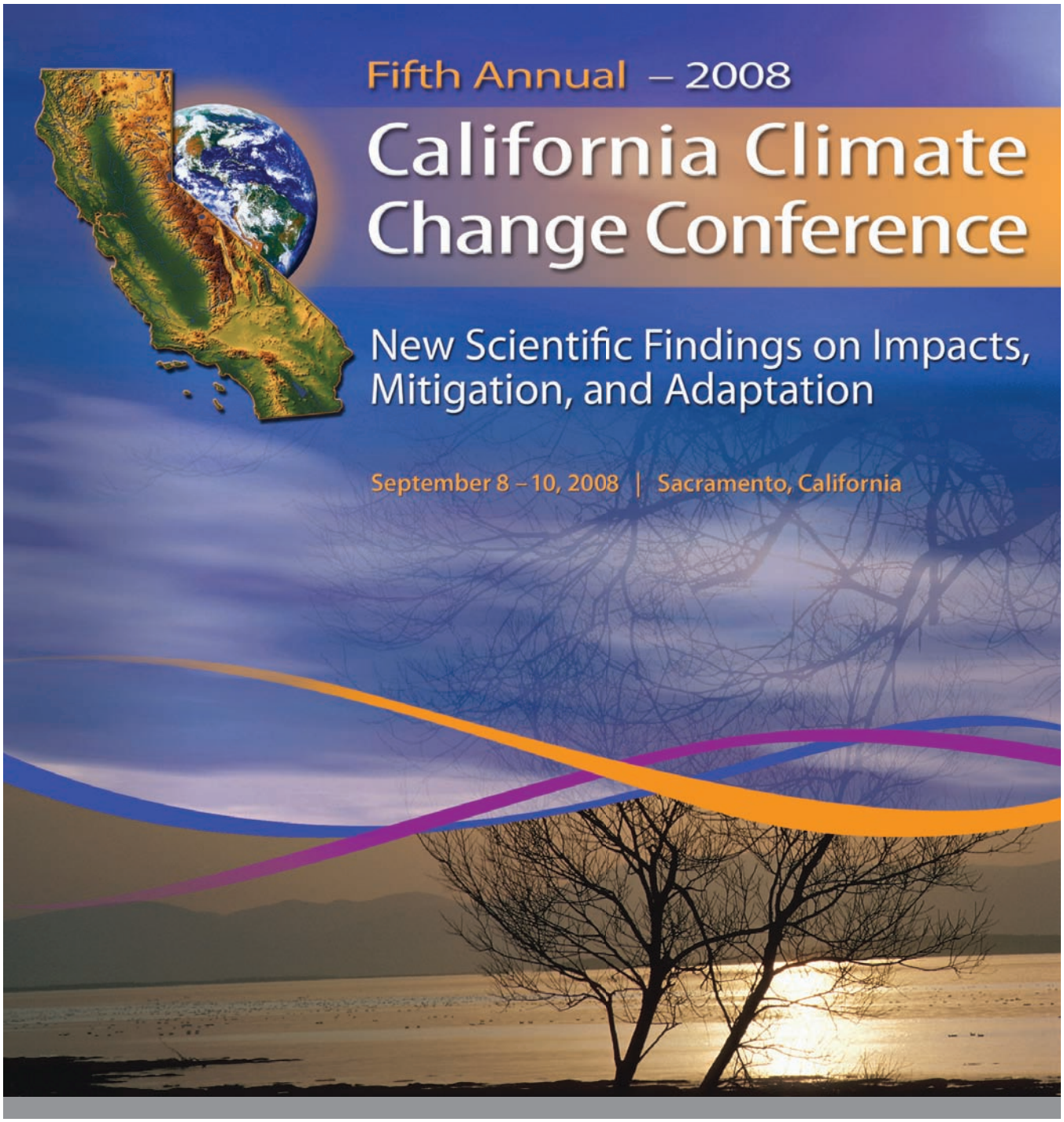

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AGENDA AT A GLANCE

FIFTH ANNUAL

CALIFORNIA CLIMATE CHANGE CONFERENCE

New Scientific Findings on Impacts, Mitigation, and Adaptation

MONDAY | September 8, 2008		
9:20 AM	Climate Change Policy in California	
11:15 AM	**Keynote Presentation: Dr. Terry Root (Stanford University)**	
1:15 PM	Regional Climate Projections for California: Initial Results	Measurement of GHG in Ambient Air
3:15 PM	Mitigation, Impacts, and Adaptation Studies: Energy	Inventory Methods
TUESDAY | September 9, 2008		
8:30 AM	Impacts and Adaptation Studies: Public Health and Air Quality	Carbon Sequestration
10:25 AM	Impacts and Adaptation Studies: Water and Agriculture	Influence of Land Use Cover and Change and Other Factors on Regional Climate
12:25 PM	**Keynote Presentation: Dr. Stefan Rahmstorf (Potsdam Institute for Climate Impact Research, Germany)** *(Broadcast from Germany via WebEx)*	
1:15 PM	Impacts and Adaptation Studies: Coastal Resources	Ecological Impacts in the 20th Century Due to Climate Change
3:05 PM	Social Sciences Informing Climate Change Policy in California	Potential Large Regional Climate Studies for California in 2010
4:30 PM	**Poster Session**	
WEDNESDAY | September 10, 2008		
8:30 AM	Biological Impacts of Climate Change in California (BICCCA) Project	Long-Term Low-Carbon Technology Pathways for California
10:35 AM	Potential Sectoral Economic Impact	Regional Climate Change Detection and Attribution Studies
1:10 PM	**Keynote Presentation: Dr. Michael Hanemann (University of California, Berkeley) and Dr. Dan Cayan (Scripps Institution of Oceanography)**	
2:15 PM	Models for Improving Climate Resiliency	
4:00 PM	**Closing Remarks**	

MONDAY | AGENDA | 09.08.08

9:20 – 9:30	**CLIMATE CHANGE POLICY IN CALIFORNIA (Room 202 – 204)** Chair: Commissioner Art Rosenfeld (California Energy Commission)	
9:30 – 9:50	**Interface Between Climate Change Science and Policy in California** Vice Chair James Boyd (California Energy Commission)	
9:50 – 10:10	**AB 32 and the Transformation of Transportation** Board Member Daniel Sperling (Air Resources Board and University of California, Davis)	
10:10 – 10:30	**Increasing California's Resiliency to Climate Change** Secretary Mike Chrisman (Resources Agency)	
10:30 – 10:50	**Open forum and questions from the audience**	
	B R E A K	
11:05 – 11:15	**Conference Overview** Martha Krebs (California Energy Commission)	
11:15 – 12:00	**KEYNOTE PRESENTATION: THE FUTURE OF ECOSYSTEMS UNDER CLIMATE CHANGE** **Dr. Terry Root (Stanford University)**	
	L U N C H B R E A K	
TOPICS	**REGIONAL CLIMATE PROJECTIONS FOR CALIFORNIA: INITIAL RESULTS (Room 202 – 204)** Chair: Guido Franco (California Energy Commission)	**MEASUREMENT OF GHG IN AMBIENT AIR (Exhibit Hall E)** Chair: Marla Mueller (California Energy Commission)
1:15 – 1:35	**How Well Do Global Climate Models Simulate the Transport of Momentum, Heat and Moisture into the California Region?** Tom Wigley (National Center for Atmospheric Research)	**Quantification of Greenhouse Gas Emissions: A NOAA Perspective** Arlyn Andrews (National Oceanic and Atmospheric Administration)
1:35 – 1:55	**Regional/California Dynamic Model and Statistical Techniques: Climate Certainties and Uncertainties** Norm Miller (Lawrence Berkeley National Laboratory)	**The CALGEM Project: Quantifying GHG Emissions from Central California** Marc Fischer (Lawrence Berkeley National Laboratory)
1:55 – 2:15	**Anthropogenic Changes in California Hydroclimate, Snowpack, and Santa Ana Winds** Duane Waliser (Jet Propulsion Laboratory)	**Species Associations of Common Pollutants and High GWP Gases in Southern California** Tony Van Curen (California Air Resources Board)

MONDAY | AGENDA | 09.08.08		
2:15 – 2:35	**Fine-Scale Modeling of Hydroclimate Over California and the West** David Pierce (Scripps Institution of Oceanography)	**Using Isotope Measurements to Validate GHG Emission Inventories** Diane Pataki (University of California, Irvine)
2:35 – 2:55	**Q&A**	**Q&A**
	B R E A K	
TOPICS	**MITIGATION, IMPACTS, AND ADAPTATION STUDIES: ENERGY (Room 202 – 204)** Chair: Pat Perez (California Energy Commission)	**INVENTORY METHODS (Exhibit Hall E)** Chair: Webster Tasat (Air Resources Board)
3:15 – 3:35	**Cooling Summer Daytime Temperatures in Coastal California During 1948-2005: Observations and Implications for Energy Demand** Robert Bornstein (San Jose State University)	**California's Emissions of High-GWP GHGs and Approaches for Improved Inventory and Verification** Alberto Ayala (Air Resources Board)
3:35 – 3:55	**Impacts of Climate Change on Residential Electricity Consumption: Evidence From Billing Data** Max Auffhammer (University of California, Berkeley)	**Vulcan: A Collaborative High-Resolution Process-Based U.S. Fossil Fuel CO_2 Inventory Project** Kevin Gurney (Purdue University)
3:55 – 4:15	**Impacts of Climate Change on Hydropower Generation in California: Different Perspectives From High- and Low-Elevation Systems** John Dracup (University of California, Berkeley)	**A New Validated Model to Estimate GHG Emissions for Dairy Farms in California: Results and Application for Statewide Emission Estimates** Bill Salas (Applied Geosolutions, LLC)
4:15 – 4:35	**Statewide Impacts of Climate Change on Hydroelectric Generation and Revenues in California** Kaveh Madani and Josue Medellin (University of California, Davis)	**Landfill CH_4 Emissions in California: Developing an Improved Field-Validated Methodology for a Regional GHG Inventory** Jean Bogner (Landfills + Inc., and University of Illinois at Chicago)
4:35 – 4:55	**Q&A**	**Q&A**

TUESDAY | AGENDA | 09.09.08

TOPICS	IMPACTS AND ADAPTATION STUDIES: PUBLIC HEALTH AND AIR QUALITY (Room 202 – 204) Chair: Paul English (California Department of Public Health)	CARBON SEQUESTRATION (Exhibit Hall E) Chair: Doug Wickizer (California Department of Forestry and Fire Protection)
8:30 – 8:50	**Climate Variability and California Low-Level Inversions** Sam Iacobellis (Scripps Institution of Oceanography)	**Accounting for Potential GHG Benefits From Improved Fuels Management Practices on Forested Lands** Sandra Brown (Winrock International)
8:50 – 9:10	**Community Vulnerability Assessments: Implications for Adaptation Strategies** Helene Margolis (California Department of Public Health)	**Carbon Sequestration Potential of the Sacramento Delta Wetlands** Roger Fujii (United States Geological Survey)
9:10 – 9:30	**Impact of Climate Change on Photochemical Air Pollution in Southern California** Robert Harley (University of California, Berkeley)	**WESTCARB Geologic CO_2 Sequestration Field Tests** John Henry Beyer (Lawrence Berkeley National Laboratory)
9:30 – 9:50	**High Temperatures and Human Mortality and Morbidity in California** Bart Ostro (Office of Environmental Health Hazard Assessment)	**Altering Seawater Chemistry to Mitigate CO_2 and Ocean Acidification** Greg Rau (University of California, Santa Cruz)
9:50 – 10:10	**Q&A**	**Q&A**
	B R E A K	
TOPICS	**IMPACTS AND ADAPTATION STUDIES: WATER AND AGRICULTURE (Room 202 – 204)** Chair: John Andrew (California Department of Water Resources)	**INFLUENCE OF LAND USE COVER AND CHANGE AND OTHER FACTORS ON REGIONAL CLIMATE (Exhibit Hall E)** Chair: Reza Navai (California Department of Transportation)
10:25 – 10:45	**Impact of Climate Change on the San Joaquin Valley Water Supply and Potential Agricultural Adaptation Strategies** Larry Dale (Lawrence Berkeley National Laboratory)	**Black Carbon Measurements in the Mountains of California: Sources and Impacts** Odelle Hadley (Lawrence Berkeley National Laboratory)
10:45 – 11:05	**Multi-Objective Policy Performance of the Delta With Sea Level Rise and Other Future Conditions** Jay Lund (University of California, Davis)	**Global Cooling: Technologies to Increase Worldwide Urban Albedos to Offset CO_2** Hashem Akbari (Lawrence Berkeley National Laboratory)

TUESDAY | AGENDA | 09.09.08		
11:05 – 11:25	**Potential for Adaptation to Climate Change in an Agricultural Landscape in the Central Valley of California** Louise Jackson (University of California, Davis)	**The Effects of Irrigation on Past and Future Temperatures in the Central Valley** David Lobell (Stanford University)
11:25 – 11:45	**Cascade: A Scenarios Analysis of the San Francisco Bay-Delta Ecosystem** David Schoellhamer (United States Geological Survey)	**Measurements of Black Carbon and Ozone and Their Implied Climate Forcing in California** Craig Corrigan (Scripps Institution of Oceanography)
11:45 – 12:00	**Q&A**	**Q&A**
	LUNCH BREAK	
12:25 – 1:10	**KEYNOTE PRESENTATION: THE RISE OF GLOBAL SEA LEVELS** **Dr. Stefan Rahmstorf (Potsdam Institute for Climate Impact Research, Germany)** *Broadcast from Germany via WebEx*	
TOPICS	**IMPACTS AND ADAPTATION STUDIES: COASTAL RESOURCES (Room 202 – 204)** Chair: Leslie Lacko (San Francisco Conservation and Development Commission)	**ECOLOGICAL IMPACTS IN THE 20th CENTURY DUE TO CLIMATE CHANGE (Exhibit Hall E)** Chair: Armand G. Gonzales (California Department of Fish and Game)
1:15 – 1:35	**Sea Level and Runup Projections Along the California Coast** Peter Bromirski (Scripps Institution of Oceanography)	**Climate Change and the Future of California's Endemic Flora** Scott Loarie (University of California, Berkeley)
1:35 – 1:55	**Assessing Inundation Vulnerability Due to Sea Level Rise in San Francisco Bay** Noah Knowles (United States Geological Survey	**Invasive Species and Climate Change** Doug Johnson (California Invasive Plant Council)
1:55 – 2:15	**Recent Subsidence in the Sacramento/ San Joaquin Delta Revealed by Space-Based Geodesy** Ben Brooks (University of Hawaii)	**Recent Findings From the Grinnell Re-survey Project: Changes in Avian and Mammal Diversity Over the Past Century** Craig Moritz (University of California, Berkeley)
2:15 – 2:35	**CALFED Science Program—Putting Climate Into the Mix** Cliff Dahm (CALFED)	**Uncertainty, Scale, and Cost: Redesigning Conservation in the Face of Climate Change** Lee Hannah (Conservation International)

TUESDAY | AGENDA | 09.09.08		
2:35 – 2:50	**Q&A**	**Q&A**
	B R E A K	
TOPICS	**SOCIAL SCIENCES INFORMING CLIMATE CHANGE POLICY IN CALIFORNIA (Room 202 – 204)** Chair: Sarah Pittiglio (California Energy Commission)	**POTENTIAL LARGE REGIONAL CLIMATE STUDIES FOR CALIFORNIA IN 2010 (Exhibit Hall E)** Chair: Dan Cayan (Scripps Institution of Oceanography)
3:05 – 3:25	**Vulnerability and Adaptation to Climate Change: Research Priorities for California** Susanne Moser (University of California, Santa Cruz)	**What Can Be Gained From Yet One More Major Field Study?** Eileen McCauley (California Air Resources Board) and Guido Franco (California Energy Commission)
3:25 – 3:45	**Enabler or Obstructionist? Law and Climate Change Adaptation** Margaret R. Caldwell (Stanford University)	**CalNex: Plans for a 2010 Climate Change and Air Quality Field Study in California** David Parrish (National Oceanic and Atmospheric Administration)
3:45 – 4:05	**Social Science Insights on the Transition to Sustainability** Daniel Mazmanian (University of Southern California)	**CalWater: An Experiment Addressing Scientific Uncertainties in Climate Projections of Water Supply and Flooding in California** Marty Ralph (National Oceanic and Atmospheric Administration)
4:05 – 4:20	**Q&A**	**Q&A**
4:30 – 7:30	**POSTER SESSION** **(Exhibit Hall E)** **Chair: Sarah Pittiglio (California Energy Commission)**	

WEDNESDAY | AGENDA | 09.10.08

TOPICS	THE BIOLOGICAL IMPACTS OF CLIMATE CHANGE IN CALIFORNIA (BICCCA) PROJECT (Room 202 – 204) Chair: Kurt Malchow (California Resources Agency)	LONG-TERM LOW-CARBON TECHNOLOGY PATHWAYS FOR CALIFORNIA (Exhibit Hall E) Chair: Andrew Altevogt (California Environmental Protection Agency)
8:30 – 8:45	**Overview** Terry Root (Stanford University)	**Compliance Responsibility and Allowance Allocation in a CO_2 Emissions Cap-and-Trade Program for the Electricity Sector in California** Karen Palmer (Resources for the Future)
8:45 – 9:05	**Quaternary Fossils from Northern California Reveal Mammalian Response to Climatic Change** Jessica L. Blois (Stanford University)	**Long-Term Potential for Energy Efficiency in California Buildings and Industry** Eric Masanet (Lawrence Berkeley National Laboratory)
9:05 – 9:25	**Elevational Shifts in Breeding Bird Distributions Over a 26-Year Period in a Southern California Desert Region** Lori Hargrove (University of California, Riverside)	**Impact of Different Transportation Fuels and Technologies in the Natural Gas and Electricity System of California** Alan Lamont (Lawrence Livermore National Laboratory)
9:25 – 9:45	**Climate Change Impacts on the Biological Productivity of the Coastal Ocean** Jeffrey Dorman (University of California, Berkeley)	**Routes to Carbon-Neutral Transportation Fuels Derived From Solar Energy: The Helios Project** Elaine Chandler (Lawrence Berkeley National Laboratory)
9:45 – 10:05	**Managing Grassland Biodiversity into an Uncertain Future** Blake Suttle (University of California, Santa Cruz)	**Fire and Carbon: The Role of Forests and Other Terrestrial Ecosystems in California** Max Mortiz (University of California, Berkeley)
10:05 – 10:20	**Q&A**	**Q&A**
	B R E A K	
TOPICS	**POTENTIAL SECTORAL ECONOMIC IMPACTS (Room 202 – 204)** Chair: Alan Sanstad (Lawrence Berkeley National Laboratory)	**REGIONAL CLIMATE CHANGE DETECTION AND ATTRIBUTION STUDIES (Exhibit Hall E)** Chair: Joe O'Hagan (California Energy Commission)
10:35 – 10:55	**Mapping Vulnerability to Wildfire: Property Losses and Suppression Costs** Anthony Westerling (Sierra Nevada Research Institute)	**Can We Detect Climate Change in Western Hydroclimate?** Hugo Hidalgo (Scripps Institution of Oceanography)

WEDNESDAY | AGENDA | 09.10.08		
10:55 – 11:20	**Economic Impacts of Climate Change on California Agriculture** Charles Kolstad (University of California, Santa Barbara)	**Human-Induced Temperature Changes in the Mountainous Western United States** Celine Bonfills (Lawrence Livermore National Laboratory)
11:20 – 11:40	**Estimating the Potential Economic Impacts of Climate Change on Southern California Beaches** Linwood Pendleton (Coastal Ocean Values Center/University of California, Los Angeles)	**Observed Changes in Vegetation Patterns in California** James Thorne (University of California, Davis)
11:40 – 12:00	**Assessing the Costs of Sea-Level Rise Along the California Coast and In San Francisco Bay** Peter Gleick (Pacific Institute)	**Including Model Quality Information in Detection and Attribution Studies: One Model, One Vote?** Ben Santer (Lawrence Livermore National Laboratory)
12:00 – 12:15	**Q&A**	**Q&A**
	LUNCH BREAK	
1:10 – 2:10	**KEYNOTE PRESENTATION: CLIMATE CHANGE ADAPTATION—WHAT SHOULD CALIFORNIA DO? (Room 202 – 204)** **Dr. Michael Hanemann (University of California, Berkeley) and** **Dr. Dan Cayan (Scripps Institution of Oceanography)**	
TOPIC	**MODELS FOR IMPROVING CLIMATE RESILIENCY** Chair: Darren Bouton Cabinet Secretary, Governor Schwarzenegger's Office	
2:15 – 2:25	**Opening Remarks and Introductions** Darren Bouton	
2:25 – 2:35	**The Key Vulnerabilities and Risks of Climate Change** Steve Schneider (Professor, Stanford University)	
2:35 – 2:45	**California Water and Climate Change Adaptation** Lester Snow (Director, CA Department of Water Resources)	
2:45 – 2:55	**Climate Change: Adaptation Challenges and Prospects for California** Louise Bedsworth (Research Fellow, Public Policy Institute of California)	
2:55 – 3:05	**Adaptation Planning for Local Governments** Gary Cook (Deputy Director, ICLEI U.S.A.)	
3:05 – 3:15	**Climate Change and Investment Strategies** Ian Noble, Climate Change Advisor, The World Bank	
3:15 – 3:25	**The Climate Change Resilience Initiative** Cristina Rumbaitis del Rio (Senior Research Associate, Rockefeller Foundation)	
3:25 – 4:00	**Panel Questions and Answers**	
4:00 – 4:10	**CLOSING REMARKS**	

Terry Root

Stanford University

Dr. Root is a Senior Fellow and faculty at the Center for Environmental Science and Policy Institute for International Studies at Stanford University. How have wild animals and plants responded to the globe warming ~0.8°C (~1.3°F) over the last century? What might the future ecological consequences be for wild species as the globe continues to warm rapidly? These are the types of questions Dr. Root is investigating.

Dr. Root is well recognized for her efforts to understand the complex problem of climate changes and her outreach to decision makers and the general public. She was a lead author in both the Third (2003) and Fourth (2007) Assessment Reports of the Intergovernmental Panel on Climate Change (IPCC) and was co-awarded the 2007 Nobel Peace Prize with Vice President Al Gore. Dr. Root, as part of the IPCC, was a co-awardee with Stephen H. Schneider of the Banksia International Award from the Australian Banksia Environmental Foundation in 2006, and in 2002 the Conservation Achievement Award from the National Wildlife Federation. She was also a Pew Scholar in Conservation and Environment, a Presidential Young Investigator Award recipient, and an American Ornithologists' Union Fellow.

Dr. Root's current and future work will concentrate on adaptation measures for species and on establishing prioritizing methods for species, which could help significantly decrease the number of extinctions.

Stefan Rahmstorf

Potsdam Institute for Climate Impact Research, Germany

Dr. Rahmstorf is a climate scientist who explains the human responsibility for global warming objectively. After studying physics at the Universities of Ulm and Konstanz and physical oceanography at the University of Wales (Bangor), Stefan Rahmstorf completed a thesis on general relativity theory. He then moved to New Zealand and obtained his Ph.D. in Oceanography at Victoria University of Wellington in 1990. His Ph.D. work included a number of research cruises in the South Pacific.

Subsequently, he worked as a scientist at the New Zealand Oceanographic Institute, at the Institute of Marine Science in Kiel, and since 1996 at the Potsdam Institute for Climate Impact Research. His work there focuses on the role of ocean currents in climate change.

In 1999 Dr. Rahmstorf was awarded the $1 million Centennial Fellowship Award of the U.S.-based James S. McDonnell Foundation. Since 2000 he has taught Physics of the Oceans as a professor at Potsdam University. Dr. Rahmstorf is a member of the Academia Europaea and of the German Advisory Council on Global Change (WBGU). He is also one of the lead authors of the 4th Assessment Report of the IPCC. In 2007 he became an Honorary Fellow of the University of Wales.

Michael Hanemann

UNIVERSITY OF CALIFORNIA, BERKELEY

Dr. Michael Hanemann is a Chancellor's Professor and Professor of environmental and resource economics in the Department of Agricultural and Resources Economics at the University of California, Berkeley, where he has been on the faculty since 1968. Dr. Hanemann is also Director of the Berkeley Center of the California Climate Change Center, whose emphasis is on economic and policy analysis. Prior to coming to Berkeley, he earned a B.A. from Oxford University in Philosophy, Politics and Economics, a M.Sc. in Economics from the London School of Economics, and a Ph.D. in Economics from Harvard University.

Dr. Hanemann's work has focused largely on aspects of modeling individual choice behavior, with applications to demand forecasting, inducing conservation, environmental regulation, and economic valuation. He is a leading authority on the methodology of non-market valuation using techniques of both revealed and stated preference.

Dr. Hanemann's current research interests include non-market valuation, environmental economics and policy, water pricing and management, demand modeling for market research and policy design, the economics of irreversibility and adaptive management, and welfare economics.

Daniel Cayan

Scripps Institution of Oceanography

Dr. Daniel R. Cayan is a Research Meteorologist at the Scripps Institution of Oceanography (SIO), University of California, San Diego, and is a Researcher in the U.S. Geological Survey. His work is aimed at understanding climate variability and changes over the Pacific Ocean and North America. Specific interests concern impacts of climate changes on water resources and other sectors in western North America.

Dr. Cayan heads two regional climate study activities, the California Applications Program and the California Climate Change Center, climate research programs to improve climate information and forecasts for decision-makers in the California region; see http://meteora.ucsd.edu/cap/.

Dr. Cayan received a B.S. degree in Meteorology and Oceanography in 1971 from the University of Michigan. He received a Ph.D. in Oceanography in 1990 from the University of California, San Diego. He has been employed by SIO since 1977 and by the U. S. Geological Survey Water Resources Division since 1991.

Poster Session

1. **Greenhouse Gas Inventory and Emissions Reduction Strategies for San Diego County**
   S. Anders, D. DeHaan, N. Silva-Send, S. Tanaka, L. Tyne (UC San Diego)

2. **WRF-ACASA Coupling: California's Future Carbon Flux**
   L. Xu, R. Pyles, K. Paw (UC Davis)

3. **The Influence of Environmental and Microbial Controllers on N_2O Fluxes From a Conventionally Managed Almond Orchard**
   M. Matiasek, D. R. Smart, K. M. Scow, E.C. Suddick (UC Davis)

4. **The Impact of Increased Greenhouse Gases on the Hydroclimate in California**
   J. Kim, Y. Chao, A. Eldering, R. Fovell, A. Hall, Q. Li, K. Liou, J. McWilliams, D. Waliser, Y. Xue, S. Kapnick (UC Los Angeles)

5. **Attribution of Carbon in the Atmosphere: A Fossil Fuel Emission Verification Capability and a Tool to Reduce the Uncertainties in the Carbon Budget**
   T.P. Guilderson, P. Cameron-Smith, B. Kosovic, D. L. Delle Monache, D. Bergmann, K. Grant (LLNL)

6. **Greenhouse Gas Emissions in California: Atmospheric Chemistry of Sulfuryl Fluoride**
   M.P. Sulbaek Andersen, D.R. Blake and F.S. Rowland (UC Irvine)

7. **Developing and Applying Process-Based Models for Estimating GHG and Air Emissions From California Dairies**
   W. Salas (Applied Geosolutions), C. Lie (University of New Hampshire), F. Mitloehner (UC Davis), J. Pisano (UC Riverside)

8. **Greenhouse Gas Emission Reduction Practices on Rice Farm in the Sacramento Valley: Accounting for Multiple Benefits for Producers and the Environment**
   W. Salas (Applied Geosolutions, LLC), P. Buttner (California Rice Commission), E. Holst (Environmental Defense Fund), C. Li (University of New Hampshire)

9. **Landfill CH_4 Emissions in California: Developing and Improved Field-Validated Methodology for a Regional GHG Inventory**
   J. Bogner (University of Illinois), K. Spokas (USDA), J. Chanton (Florida State University)

10. **Urban Models, GHG Models, Energy Use Models for Countries**
    R. Johnston (UC Davis)

11. **GHG Emissions Tracking, Reporting, and Analysis Tool for the Utility Industry**
    F. Maghsoodlou (Open Access Technology International)

12. **Methane Emissions Inventory Verification in Southern California**
    Y.K. Hsu (CARB)

13. **Ultrasensitive Instrumentation for Real-Time Measurements of Greenhouse Gases**
    T. Owano, M. Gupta, R. Fellers, I. McAlexander, B. Provencal, F. Dong, D. Baer (Los Gatos Research)

14. **Effect of Climate Change on Field Crop Production in the Central Valley of California**
    J. Lee and J. Six (UC Davis)

15. **Adapting to Climate Change: The Benefits of Meadow Restoration for Pollinators**
    B. Colloran, G. LeBuhn (CSU San Francisco)

16. **Ecosystem Change in California Grasslands: Effects of Species Invasion on Climate**
    L. Koteen and J. Harte (UC Berkeley)

17. **Does Climate Limit a High-Elevation Plant Invasion? Effects of Experimental and Natural Climate Forcings on Bromus Tectorum Population Dynamics**
    A. B. Griffith and M. E. Loik (UC Santa Cruz)

18. **Assessing Climate Change Adaptive Potential in a Sierra Nevada Endemic Plant**
J. P. Sexton, K. Rice, S. Strauss (UC Davis)

19. **The Physiological Impacts of Climate Change Along the California Coast: A Case Study of the Purple Sea Urchin**
C. J. Osovitz, M. J. O'Donnell, G.E. Hofmann (UC Santa Barbara)

20. **Integrating Global Climate Change Into Salmon and Trout Conservation in the Klamath River, California**
R.M. Quinones and P.B. Moyle (UC Davis)

21. **The Effect of Climate Change on the Timing of Breeding in California Birds**
J.E. Bruzgul and T.L. Root (Stanford University)

22. **Using Historical Data to Measure Climate-Induced Shifts in Range**
M. Tingley and S. Beissenger (UC Berkeley)

23. **Ecosystem Feedback to Climate Change in California: Integrated Climate Forcing from Vegetation Redistribution**
W.J. Riley, J. Jiming, Z.M. Subin, D. Svehla, L.M. Kueppers, M.S. Torn (LBNL)

24. **Predicting the Effects of Future Climate and Land Use Change on California Avian Species Distributions**
C.A. Howell, D. Stralberg, D. Jongosmjit (PRBO Conservation Science), M.A. Snyder (UC Santa Cruz), T.L. Root (Stanford University)

25. **What Can Herbarium Specimens Tell Us About Climate Change in San Diego County?**
M.A. Hawke, L.A, HAINS, A. Fege (San Diego Natural History Museum)

26. **Geographic, Periglacial, and Climatic Relationships of American Pika (Ochotona Princeps) in the Eastern Sierra Nevada and Western Great Basin**
C. Millar, R. Westfall, D. Delany (USDA Forest Service)

27. **Statewide Codes and Standards Program Impacts on California Climate Change Goals**
A. Rominger, P. Eilert, E. Elliott, G. Fernstrom, J. Marver, C. Segerstrom (PG&E)

28. **Sustainable Community Development Models**
R. Cohen, E. Morris (Cohousing California)

29. **Western Region Energy System Analysis Capability: Developing Infrastructure, Models, and Research for System Transitions Under Climate Change Policy, Impacts and Energy Security**
J. Stewart, N. Goldstein, J. Lathrop, T. Baginski (LLNL)

30. **CoolCalifornia.org: An Online Tool to Foster Significant, Voluntary Carbon Reductions in California**
A. Schilla, K. Naumoff, D. Papke, A. Mora (CARB), D. Kammen, C. Jones (UC Berkeley), S. Henry (Next 10), E. Mills (LBNL)

31. **Climate Change Regulation Is Coming to California: How Will It Affect Renewable Markets?**
F. Stern, J. Pater, N. Wobus (Summit Blue Consulting)

32. **Cal Poly's BioEnergy Vision: Sustaining Civilization Under Cover**
I. Yildiz (California Polytechnic State University)

33. **The Renewables Portfolio Standard: Wind, Solar, Si Se Puede?**
C. Horiuchi (University of San Francisco)

34. **A Novel CHP-Microturbine Integrated with Industrial/Commercial Boiler to Mitigate Climate Change Impacts**
C. Castaldini (CMCE, Inc.), A. Bining (Energy Commission)

35. **A Roof That Could Cut Daytime Energy Usage in California as Well as the Rest of the World**
P. O'Leary (Futura Solar)

36. **The Stochastic Building Simulation Tool SLBM1 and Its New Energy Forecasting Approach**
M. Stadler (LBNL, Center for Energy and Innovative Technologies, Austria), C. Marnay, J. Lai (LBNL), I.L. Azevedo (Carnegie Mellon University), H. Aki (LBNL, National Institute of Advanced Industrial Science and Technology, Japan), R. Komiyama (LBNL, Institute of Energy Economics, Japan)

37. **Improvements in Observations and Tools to Detect and Depict Climate Change and Variability in California**
K. T. Redmond, D. B. Simeral (Desert Research Institute), J. T. Abatzoglou (San Jose State University)

38. **Climate Change, Land Use Change, and California: A Regional Climate Model Perspective**
M.A. Snyder , L.C. Sloan, T. O'Brien (UC Santa Cruz), L.M. Kueppers (UC Merced), K. Redmond, D. Simeral (Western Regional Climate Center, Desert Research Institute, Reno, NV) J. Abatzoglou (San Jose State University)

39. Monitoring Climate Forcing Agents in California
C. Jakober, S. Mara, Y. Hsu, J. Herner (CARB)

40. Satellite Image Interpretation for Climate Change Mapping
J. Scarborough (Berkeley Environmental Technology)

41. Airmass Characterization from Size- and Time-Resolved Aerosol Absorption and Elemental Analysis
S. Cliff, R. VanCuren (UC Davis, CARB), K. Perry (University of Utah), Y. Zhao (UC Davis)

42. A Study of California Surface Temperature Trends Based on Observations
W. Kessomkiat, E. Cordero (San Jose State University)

43. Improving Statistically Downscaled Daily Data Using Bias Correction
E. Maurer (Santa Clara University), H. Hidalgo, D. Cayan, M. Dettinger, T. Das (Scripps Institution of Oceanography)

44. Observed 1970-2005 Cooling of Summer Daytime Temperatures in Coastal California
B. Lebassi, J. Gonzalez, D. Fabris, E Maurer (Santa Clara University), N. Miller (LBNL), C. Milesi (NASA), P. Switzer (Stanford University), R. Bornstein (San Jose State University)

45. Anthropogenic Reduction of Santa Ana Winds
M. Hughes, A. Hall, J. Kim (UC Los Angeles)

46. Using EBHOM to Study Climate Change Effects on High-Elevation Hydropower Systems in California
K. Madani, J.R. Lund (UC Davis)

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