

JONATHAN OVERPECK

BIOGRAPHICAL SKETCH

PROFESSIONAL PREPARATION

1979 **AB in Geology** (Honors), Hamilton College, Clinton, New York
1981 **MSc in Geological Sciences**, Brown University, Rhode Island
1985 **Ph.D. in Geological Sciences**, Brown University, Rhode Island
1985-86 **Post-doctoral Research Scientist**, Columbia University jointly with the NASA
 Goddard Institute for Space Studies

APPOINTMENTS

2009- **Founding Co-Director** (with Diana Liverman), Institute of the Environment,
 Univ. of Arizona, Tucson
2007- **Founding Director**, Translational Environmental Research Program, U. Arizona
1999-2008 **Director**, Institute For The Study of Planet Earth, Univ. of Arizona, Tucson
1999- **Professor**, Dept. of Geosciences, Univ. of Arizona, Tucson
2004- **Professor** (Joint), Dept. of Atmospheric Sciences, Univ. of Arizona, Tucson
2006- **Affiliated Faculty Member** – James E. Rogers College of Law, U. Arizona
1992-9 **Fellow**, Institute of Arctic and Alpine Research, Univ. of Colorado
1992-01 **Adj. Assoc. Professor**, Dept. of Geological Sciences, University of Colorado
1992-9 **Founding Director**, World Data Center for Paleoclimatology, Boulder, CO
1991-9 **Founding Head**, NOAA Paleoclimatology Prgm, Nat. Geoph. Data Center,
 Boulder, CO
1986-90 **Associate Research Scientist**, Lamont-Doherty Earth Observatory of Columbia
 University, New York.

SELECTED AWARDS AND HONORS

2009 - Elected Fellow of the American Association for the Advancement of Science (AAAS)
2009 – Leading Edge Researcher Award, U. Arizona Office of Economic Development
2008 – NOAA Oceanic and Atmo. Research Outstanding Scientific Paper Award – shared
2007 – Nobel Peace Prize – contributed in leadership role as a Coordinating Lead Author of
 the Fourth Assessment of the Intergovernmental Panel on Climate Change (IPCC).
2007 – Shared winner of Atmospheric Science Librarians International's Scientific and
 Technical Category for "high impact comprehensive publication" for *Climate Change*
 2007: *The Physical Science Basis*.
2005 – Bjerknes Lecturer, American Geophysical Union
2005 – John Simon Guggenheim Fellowship Award
2004 – Birbal Shani Institute of Palaeobotany, Lucknow, India Prof. T.M. Harris Medal for
 2004 (awarded for best Indian co-authored paper in field in 2004)
2001 – American Meteorological Society's Walter Orr Roberts 2001 Award
1999 – US Department of Commerce Gold Medal
1996 – US Department of Commerce Outstanding Performance Award
1995 – National Geophysical Data Center Director Award
1994 – US Department of Commerce Bronze Medal
1991 – US Department of Commerce Unusually Outstanding Performance Award

SELECTED PROFESSIONAL ACTIVITIES

Co-lead (with Gregg Garfin and others) 2012 Southwest Climate Assessment

- Senior Fellow**, U.S. Department of State Energy and Climate Partnership of the Americas Program (2011-)
- Lead Author**, IPCC Fifth Assessment Working Group 2, Chapter Four: Terrestrial and Inland Water Systems (2010 –)
- Congressional Testimony and Briefings**, Eight times in last five years.
- Faculty**, The National Judicial College, Reno, NV (2009)
- Founder and Lead Scientist**, Southwest Climate Change Network (<http://www.southwestclimatechange.org/>) Southwest climate Blog
- Coordinating Lead Author**, IPCC Fourth Assessment Working Group I Chapter Six: Paleoclimate; **also co-author** of the WG1 *Summary for Policy Makers* and the WG1 *Technical Summary*.
- Member**, National Academy of Sciences/NRC Committee on Ecological Impacts of Climate Change, 2008.
- Member**, U.S. Climate Change Science Program Federal Advisory Committee focused on “Climate change and the United States: Analysis of the effects and projections for the future – Unified Synthesis Product,” 2008.
- Founding Editor** (with M. Miller and B. Morehouse) of the new “*Environmental Science, Law, and Policy*” book series, University of Arizona Press and partners (2007 -)
- Member**, Board of Reviewing Editors, *Science* (2006 to 2011).
- Member**, Committee charged with drafting society’s new Statement on Climate Change Impact, American Meteorological Society (2006 to 2007).
- Member**, NOAA Climate Working Group (2004 to 2008).
- Principal Investigator**, Climate Assessment For the Southwest (CLIMAS – part of the NOAA-funded Regional Integrated Sciences and Assessments Program – RISA) (2002 to present).
- Chair**, NSF Arctic System Science (ARCSS/ARCUS) Committee (2002 to 2006).
- Member**, National Academy of Science/NRC, Committee on Coping with Increasing Demands on Government Data Centers (2001 to 2003).
- Member**, National Academy of Sciences/NRC Committee (and workshop co-organizer) on Abrupt Climate Change: Science and Policy (2001-2002).
- Founding Co-Chair** (with J-C Duplessy), IGBP PAGES-WCRP CLIVAR Working Group (1995 – served as co-chair until 2004).
- Member**, IGBP PAGES (Past Global Changes) Scientific Steering (SSC) and Executive Committees (1993 to 1999; also served as **Vice Chairman** SSC 1998-99).
- Founding Director**, World Data Center for Paleoclimatology (1992 to 1999).
- Leader or Co-leader**, over 20 paleoclimate research field expeditions in North America, the Arctic, Monsoon Asia, Monsoon Africa, and South America (1986 to present); also scientist on two research cruises, including **Co-chief Scientist**, 1990 R/V Washington, Cruise PLUME 7, Cariaco Basin, Venezuela – the cruise that led to the prominence of Cariaco Basin paleo-records in abrupt change research.
- Organizer or Co-organizer**, over 30 regional, national and international workshops and conferences (1993 to present).

SELECTED PUBLICATIONS (from >150 total published, *led by student)

Publications Since 2008.

- Garfin, G. Overpeck, J. et al., (2012). The 2012 Southwest Climate Assessment (in progress)
- Engel, K. and J. Overpeck (2011). *Adaptation and Climate Science in the Courtroom*. In: *Warming to Climate Change: Adaptation in Places On The Edge*, Carl Bauer & Lance Gunderson, eds. The University of Arizona Press, Tucson (in press).
- Strauss, B.H. Re. Ziemlinski, J. L. Weiss, and J. T. Overpeck (2011). Tidally-adjusted estimates of topographic vulnerability to sea level rise and flooding for the contiguous United States. *Environmental Research Letters* (in review).

- *Conroy, J.L., J. T. Overpeck, J. E. Cole, K-B Liu, L. Wang and M. N. Ducea (2011). Climatic drivers of increased Himalayan dust over the 20th century. *Science* (in review).
- *Weiss, J.L., J.T. Overpeck, J.E. Cole (2011). Dissecting the 2011 drought in the southern US, *EOS* (in review).
- *Restrepo, A., M. Bush, A. Correa-Metrio¹, J. Conroy, M. R. Gardener, P. Jaramillo, M. Steinitz-Kannan, J. Overpeck and P. Colinvaux. (2011). Impacts of climate variability and human colonization on the vegetation of the Galápagos Islands, *Ecology* (in review).
- *Routson C.C., C. A. Woodhouse and J. T. Overpeck (2011). Second century megadrought in the Rio Grande headwaters, Colorado: How unusual was medieval drought? *Geophysical Research Letters* (in review).
- *Ault, T.R. G. T. Pederson , J. E. Cole, J. T. Overpeck , and D. M. Meko (2011). How likely are megadroughts in the coming century? *Proc. of the National Academy of Sciences (in review)*.
- Overpeck, J.T. G.A. Meehl, S. Bony, D. R. Easterling. 2011. Climate Data Challenges in the 21st Century. *Science* 331: 700-702.
- Yin, J., J. T. Overpeck, S. M. Griffies, A. Hu, J. L. Russell and R. J. Stouffer (2011). Different magnitudes of projected subsurface ocean warming around Greenland and Antarctica. *Nature Geoscience* 4: 524-528.
- *McKay N. P., J.T. Overpeck, B.L Otto-Bliesner. (2011). The role of ocean thermal expansion in Last Interglacial sea level rise, *Geophysical Research Letters* 38: L14605, doi:10.1029/2011GL048280
- *Weiss, J.L. J.T. Overpeck and B.H. Strauss. (2011). Implications of recent sea level rise science for low-elevation areas in coastal cities of the conterminous U.S.A. Climatic Change DOI 10.1007/s10584-011-0024-x
- Overpeck, J., M. Miller, and D. Liverman. (2011). Climate change as a local phenomenon. In: *Climate Change Policy at Multiple Scales: The Opportunities of Federalism*, E. Schlager, K. Engel, S. Rider, eds. The University of Arizona Press, Tucson.
- *Conroy, J.L and J.T. Overpeck. (2011). Regionalization of present-day precipitation in the greater monsoon region of Asia, *Journal of Climate* 24: 4073-4095
- Bush, M.B., Colinvaux, P.A., Steinitz-Kannan, M., Overpeck, J.T., Sachs, J., Cole, J.E., Collins, A., Conroy, J., Restrepo, A., and Zhang, Z. (2010) Forty years of paleoecology in the Galápagos. *Galápagos Research* 67: 55-61.
- Overpeck, J. and B. Udall (2010). Dry Times Ahead. *Science* 328: 1642-1643.
- Miller, M and J.T. Overpeck (2010). Climate Change & The Practice of Law, *Arizona Attorney* October, 2010, 30-37.
- Brickey, C., K. H. Engel, K. Jacobs, J. Matter, D. F. Luecke, M. L. Miller, J. T. Overpeck, and B. Udall. 2010. How to Take Climate Change into Account: A Guidance Document for Judges Adjudicating Water Disputes. *Environmental Law Reporter* 40:11215-11228.
- Karl, T.R., J. M. Melillo, and T. C. Peterson, (eds.). (2009) Global Climate Change Impacts in the United States, Cambridge University Press, (released at White House press conference).
- Kaufman, D.S., D. P. Schneider, N. P. McKay, C. M. Ammann, R. S. Bradley, K. R. Briffa, G. H. Miller, B. L. Otto-Bleisner, J. T. Overpeck, B.M. Vinther and Arctic Lakes 2k Project Members (2009). Recent Warming Reverses Long-Term Arctic Cooling. *Science* 325, 1236-1239.
- *Shanahan, T., J.T. Overpeck, K. Anchukaitis, J.W. Beck, J.E. Cole, D. Dettman, J. Peck, C.A. Scholz, and J.W. King (2009). Atlantic forcing of persistent drought in West Africa *Science* 324, 377-380.
- *Shanahan, T. M., Overpeck, J. T., Beck, J. W., Wheeler, C. W., Peck, J. A., King, J. W., and Scholz, C. A. (2008). The formation of biogeochemical laminations in Lake Bosumtwi,

- Ghana, and their usefulness as indicators of past environmental changes. *Journal of Paleolimnology* 40, 339-355.
- National Research Council (2008). *Ecological Impacts of Climate Change*, 57 pp., National Academy Press, Washington, D.C., 2003 (Overpeck is a co-author).
- *Weiss, J.L., C. L. Castro and J. T. Overpeck. (2009). The changing character of climate, drought, and the seasons in the Southwestern U.S.A. *Journal of Climate* 22: 5918-5932.
- *Conroy J. L., J.T. Overpeck, J.E. Cole and M. Steinitz-Kannan. (2009). Variable oceanic teleconnections to Western North American drought over the last 1200 years. *Geophysical Research Letters* 36: L17703 10.1029/2009gl039558
- Jones, P.D., K.R. Briffa, T.J. Osborn, J.M. Lough, T.D. van Ommen, B.M. Vinther, J. Luterbacher, E. R. Wahl, F.W. Zwiers, M.E. Mann, G.A. Schmidt, C. M. Ammann, B.M. Buckley, K. M. Cobb, J. Esper, H. Goosse, N. Graham, E. Jansen, T. Kiefer, C. Kull, M. Küttel, E. Mosley-Thompson, J.T. Overpeck, N. Riedwyl, M. Schulz, A. W. Tudhope, R. Villalba, H. Wanner, E. Wolff and E. Xoplaki (2009). High-resolution paleoclimatology of the last millennium: a review of current status and future prospects. *The Holocene* 19, 3-49.
- Overpeck, J. (2009). Keep the West Vibrant with a Strong Climate Change Policy, *Southwest Hydrology* 8(2): 24-30. (invited paper).
- Overpeck, J.T. and J.E. Cole (2008). The rhythm of the rains. *Nature* 451, 1061-1063.
- *Conroy J. L., A. Restrepo, J.T. Overpeck, M. Steinitz-Kannan, J.E. Cole, M B. Bush and P. A. Colinvaux (2009). Unprecedented recent warming of surface temperatures in the eastern tropical Pacific Ocean. *Nature Geoscience* 2, 46-50; plus featured as issue "Backstory".

Five Other Relevant Publications

- IPCC, 2007: Summary for Policymakers. *In*: Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. (Solomon, S. et al., eds). Cambridge University Press. Cambridge. Pages 1-18.
- Jansen, E., J.T. Overpeck and 47 others. 2007. Chapter 6: Paleoclimate. *In*: Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. (Solomon, S. et al., eds). Cambridge University Press. Cambridge. Pages 433-497.
- Overpeck J.T. and J.E. Cole. 2006. Abrupt change in the Earth's climate system. *Ann. Rev. Environment and Resources* 31, 1-31.
- Alley, R.B., J. Marotzke, W.D. Nordhaus, J.T. Overpeck, D.M. Peteet, R.A. Pielke, Jr., R.T. Pierrehumbert, P.B. Rhines, T.F. Stocker, L.D. Talley and J.M. Wallace. 2003. Abrupt Climate Change. *Science* 299: 2005-2010.
- National Research Council, *Abrupt Climate Change: Inevitable Surprises*, 182 pp., National Academy Press, Washington, D.C., 2002 (Overpeck is a co-author).