

Daniel R. Cayan

Scripps Institution of Oceanography & U.S. Geological Survey
9500 Gilman Drive, La Jolla, CA 92093-0224 (858) 534-4507 dcayan@ucsd.edu

Education

1971 B.S. Degree, M.S. Degree Meteorology and Oceanography, University of Michigan
1977 M.S. Degree Meteorology, UC Davis, UC San Diego
1990 Ph.D. Degree Oceanography, Russ Davis, Adviser, UC San Diego

Employment

1991-present Oceanographer (half-time), U.S. Geological Survey, Water Resources Division
1993-present Researcher (half-time), CASPO Division, Scripps Institution of Oceanography

Professional Memberships

American Meteorological Society, American Geophysical Union, The Oceanographic Society

Major Research Projects

1999-present co-Director, California Nevada Applications Program (a NOAA RISA Center),
<http://meteora.ucsd.edu/cnap/>
2003-present Director, California Climate Change Center (at Scripps), sponsored by the California Energy
Commission, <http://meteora.ucsd.edu/cnap/>

Selected Contributions to Refereed Literature

Pierce, D.W., T. Das, D.R. Cayan, E.P. Maurer, N.L. Miller, Y. Bao, M. Kanamitsu, K. Yoshimura, M.A. Snyder, L.C. Sloan, G. Franco and M. Tyree, 2012: Probabilistic estimates of future changes in California temperature and precipitation using statistical and dynamical downscaling. *Climate Dynamics*, doi:10.1007/s00382-012-1337-9.
Das, T., D.W. Pierce, D.R. Cayan, J.A. Vano and D.P. Lettenmaier, 2011: The importance of warm season warming to western U.S. streamflow changes. *G.R.L.*, **38**, L23403, doi:10.1029/2011GL049660.
Cayan, D.R., T. Das, D.W. Pierce, T.P. Barnett, M. Tyree, A. Gershunov, 2010: Future dryness in the southwest US and the hydrology of the early 21st century drought. *PNAS*, **107**(50), 21271–21276.
Gershunov, A., D.R. Cayan and S.F. Iacobellis, 2009: The great 2006 heat wave over California and Nevada: Signal of an increasing trend. *J. Climate*, **22**(23), 6181-6203.
Das, T., H. Hidalgo, M. Dettinger, D. Cayan, D. Pierce, C. Bonfils, T.P. Barnett, G. Bala and A. Mirin, 2009: Structure and origins of trends in hydrological measures over the western United States. *J. Hydrometeorology*, **10**(4), 871-892.
Reisen, W.K., D.R. Cayan, M. Tyree, C.M. Barker B. Eldridge, and M. D. Dettinger, 2008: Impact of climate variation on mosquito abundance in California. *J. Vector Ecology*. **33**(1), 89-98. (16)
Cayan, D.R., E.P. Maurer, M.D. Dettinger, M. Tyree and K. Hayhoe, 2008: Climate change scenarios for the California region. *Climatic Change*, **87**, (Suppl 1):S21-S42. (11, also A 99)
Westerling, A.L., H.G. Hidalgo, D.R. Cayan, and T.W. Swetnam, 2006: Warming and earlier spring increase western U.S. forest wildfire activity. *Science*, **313**, 940-943.
Knowles, N., M.D. Dettinger, and D.R. Cayan, 2006: Trends in snowfall versus rainfall for the western United States. *J. Climate*, **19**(18), 4545-4559.
Cayan, D.R., S. Kammerdiener, M.D. Dettinger, J.M. Caprio, and D.H. Peterson, 2001: Changes in the onset of spring in the western United States. *Bull. Am. Met Soc.*, **82**(3), 399-415.

PhD's Supervised at SIO:

Noah Knowles (degree, 2000), Jessica Lundquist (degree, 2004), Steve Taylor (degree, 2006; co-supervised with K. Georgakokas), David Mansbach (degree 2010; co-advisor with Joel Norris), Lydia Roach (degree, 2010; co-advisor with C. Charles), Jim Means (degree, 2011).

Postdoctoral Researchers Supervised at SIO:

Noah Knowles, currently at USGS, Ganesh Pandey, currently at CA Dept of Water Resources, Iris Stewart, currently at Santa Clara University, Anthony Westerling, currently at UC Merced, Hugo Hidalgo-Leon, currently at University of Costa Rica, Jessica Lundquist, currently at U of Washington, Tapash Das, currently at SIO, Francisco Munoz-Arriola, currently at SIO.

Recent Collaborators

M. Dettinger, *USGS San Diego*; D. Peterson, *USGS Menlo Park*; K. Redmond, *WRCC, Reno, NV*; A. Gershunov, *SIO*; A. Westerling, *UC Merced*; N. Knowles, *USGS Menlo Park*; W. Reisen, *UC Davis*; D. Pierce, *SIO*; T. Das, *SIO*.