

Dr. Roger Bales, Distinguished Professor of Engineering at UC Merced, is a well-regarded scholar and thought leader, who has been active in climate-related research and policy for over 25 years. His current work is central to California's efforts to both build the knowledge base and implement policies that adapt our water supplies, critical ecosystems and economy to the impacts of climate warming. He works with leaders in state agencies, elected officials, federal land managers, water leaders, non-governmental organizations, and other decisionmakers on developing climate solutions for California. He has led several multi-investigator, multi-disciplinary research programs, at UC Merced since 2003 and prior to that at the University of Arizona. He has been active in climate applications both regionally and nationally. He has led development of regional, national and international measurement programs that are critical for understanding climate change and contributing to climate solutions. He has also served on multiple advisory committees, is active in the region, and has an exemplary record of service to the university. A few highlights of his accomplishments follow.

Metrics of Dr. Bales' scholarship include over 150 papers in peer-reviewed journals, and many more presentations, reports and book chapters. He is a fellow in the American Geophysical Union, the American Meteorological Society, and the American Association for the Advancement of Science. He has published well-cited papers in multiple disciplines, including hydrology, glaciology, atmospheric chemistry, geochemistry and environmental engineering. For a longer curriculum vita see <https://www.dropbox.com/s/gna35lo46dlv5ox/RBVita1013a.pdf>. Dr. Bales is also an Adjunct Professor at UC Berkeley, Direct of both the UC Water Security and Sustainability Research initiative, and the Southern Sierra Critical Zone Observatory, and a researcher in the Center for Information Technology Research in the Interest of Society (CITRIS).

Upon joining UC Merced in 2003 as a founding faculty member, Dr. Bales began a major field research program in the Sierra Nevada, which from the beginning engaged many collaborators from other campuses and agencies. The foundation for this research was and remains a spatially extensive, multi-disciplinary measurement program, and helps fill a long-term need for data-driven research to build the knowledge base for changes in management of water, forest, hydropower, storage and other resources in the Sierra Nevada, and in areas that depend on Sierra Nevada water. He is continuing as the lead investigator on the multi-million dollar NSF Southern Sierra Critical Zone Observatory (CZO), which is part of a program that he worked with NSF's Geoscience Directorate since the late 1990s to initiate as a nationwide earth-science observatory program. Results of his collaborative research at the CZO and other field sites are impacting the state's response to climate change in two major ways. First, it has stimulated debate around the need for California to invest in a modern water-information system to guide increasingly critical water-related decisions, including drought management. Second, it has stimulated debate around the opportunities for water benefits as land managers consider the daunting challenges of vegetation management to mitigate catastrophic wildfire in the many unsustainable mixed-conifer forests and other ecosystems of the state. Dr. Bales was featured in a set of UCs [Onward California](#) video clips; he is frequently interviewed by the press, and maintains a regular schedule of [talks](#) about water and climate across the state. He recently collaborated on a feature documentary film on water-food security, focusing on solutions in California and globally.

At U. Arizona Dr. Bales chaired the first Regional Climate Assessment, which was part of the first U.S. National Climate Assessment, and in 1998 founded the NOAA-supported Climate Assessment for the Southwest project, to build capacity for climate applications in that region. At Arizona he also established the NASA-supported Regional Earth Science Applications Center, was one of the original Inter-disciplinary Science Program co-investigators on NASAs Earth Observing System, and co-founded an NSF Science and Technology Center focused on hydrology and climate issues in semi-arid regions. He has served on multiple National Academy committees related to the U.S. Climate Change Science program and served on the Advisory Committee for NSF's Geosciences Directorate. He has participated in multiple other national and regional climate-related programs, including one White House event. Other professional activities are listed on his curriculum vita ([link above](#)).

Dr. Bales has also carried out climate research in Greenland and Antarctica, involving ice coring, atmospheric chemistry and establishing international long-term measurement programs. He was a co-investigator on the Greenland Ice Core Project 2 (GISP2), and later retrieved and analyzed a set of over 50 shallow cores around the ice sheet to develop accurate spatial estimates of snow and ice accumulation. These results remain a foundation for estimating ice-sheet mass balance and thus contributions to sea-level rise. He also established the year-round [Summit Greenland Environmental Observatory](#), located at the top of the ice sheet; and until 2011 he served as Steering Committee Chair and Science Coordination Office Director. He worked with NOAA to expand their global observations network and make GEOSummit their 6th global monitoring site. He has participated in 3 ice-coring projects in Antarctica; and has also served as chair of the U.S. Ice Core Working Group, which represents the science community and advises NSF on priorities for ice-coring programs. He has represented the U.S. at international meetings, and hosted elected officials in Greenland, including the House Science Committee. In recent years he has reduced his polar involvement in order to focus on climate research and solutions for California.

Over his 14 years at UC Merced Dr. Bales has served as member and chair of multiple senate committees, including chair of Undergraduate Council, and chair of the Committee on Academic Planning and Resource Allocation. He was also a member of the corresponding system-wide committees. He has served as vice chair of Academic Council, chair of the School of Engineering faculty, and has chaired numerous search committees and other ad hoc committees. Since 2007, he has served as Director of UC Merced's first and largest Organized Research Unit, the Sierra Nevada Research Institute; and he is very active in university-relations efforts. He has served as UC Merced's faculty director for the Natural Reserve System, and was a member of the system-wide Natural Reserve System committee. He is a member of the U.C. president's Global Climate Leadership Council since 2014, and has been active in advancing U.C.'s Carbon Neutrality Initiative. In the region, he was on the board of the Great Valley Center, a capacity-building NGO serving the Central Valley. He has both provided leadership within UC Merced, and built lasting relations between the new university and stakeholders in the region.