Climate and Rangelands Workshop:
"Beyond Boxes and Arrows –
Assessing Climate Change/Variability and
Ecosystem Impacts/Responses in Southwestern Rangelands"

Apache Gold Casino Jan. 25-26, 2006

Speakers' Biographies

Dr. Steven R. Archer, Professor, Renewable Natural Resources, School of Natural Resources, University of Arizona

Steven Archer joined the School of Renewable and Natural Resources in August of 2002. He also serves on UA's Institute for the Study of Planet Earth Executive Committee and was formerly associate department head for the Department of Rangeland Ecology and Management at Texas A&M University. Steve earned his PhD in the Department of Rangeland Ecosystem Science at Colorado State University in association with the Natural Resources Ecology Laboratory. As a plant ecologist and ecosystem scientist, Dr. Archer conducts interdisciplinary research on dry land plant community dynamics and succession, with an emphasis on grass-woody plant interactions in relation to soils, climate, disturbance, and land use. Causes and consequences of shifts in the abundance of contrasting plant growth forms are evaluated with respect to ecophysiology, population dynamics, biogeochemistry and land surface-atmosphere interactions using laboratory, field, and simulation modeling experiments. Dr. Archer is active in the Ecological Society of America, the International Association of Landscape Ecologists, the International Association of Vegetation Scientists and the Society for Range Management, where he was recognized with an 'Outstanding Achievement Award.'

Dr. David D. Breshears, Professor, School of Natural Resources, University of Arizona

Dr. Breshears is a Professor at the School of Natural Resources at the University of Arizona and has a joint appointment with the Department of Ecology and Evolutionary Biology. He is also appointed to the Institute for the Study of Planet Earth, and serves as Theme Leader for Ecosystem Sciences. His teaching responsibilities include courses relating ecological and hydrological processes in the emerging discipline of ecohydrology. Dr. Breshears was a Technical Staff Member in Ecology with the University of California at Los Alamos National Laboratory, where he served as Coordinator for the Los Alamos National Environmental Research Park. Dr. Breshears has a Ph.D. in Radioecology – an interdisciplinary field linking ecology and contaminant transport – and completed the Program in Ecological Studies at Colorado State University in 1993. As a member of the Ecological Society of America, Dr. Breshears has served as Chair and Vice-Chair of the Rangeland Ecology Section.

Dr. Michael Crimmins, Assistant Extension Specialist of Climate, College of Agriculture and Life Sciences, Department of Soil, Water and Environmental Sciences, University of Arizona

Dr. Crimmins is on the faculty of the Department of Soil, Water, and Environmental Science at the University of Arizona and is an Extension Specialist in climate science for Arizona Cooperative Extension. Dr. Crimmins is trained as an applied climatologist and meteorologist and has ten years experience in the application of climatological and meteorological methods, tools, and data for natural resource management. Watershed management was his focus for four years while working as a private sector environmental scientist. In that position, he provided expertise on hydroclimatology, urban and agricultural non-point source runoff modeling, remote sensing and GIS applications for watershed management. He is currently working with the National Park Service on developing climate monitoring protocols for 11 southern Arizona parks.

Dr. George Frisvold, Professor and Extension Specialist, Agriculture and Resource Economics, College of Agriculture and Life Sciences, University of Arizona

Dr. Frisvold is a Professor and Extension Specialist in Agricultural and Resource Economics at the University of Arizona, and an investigator with ISPE's Climate Assessment for the Southwest project. He joined the faculty at the University of Arizona in 1997. He has been a visiting scholar at the National Institute of Rural Development in Hyderabad, India, a lecturer at Johns Hopkins University, and chief of the Resource and Environmental Policy Branch of USDA's Economic Research Service. In 1995-96, Dr. Frisvold served on the Senior staff of the President's Council of Economic Advisers with responsibility for agricultural, natural resource, and international trade issues. Currently, he serves as co-editor of the Review of Agricultural Economics. He earned a Ph.D. at University of California, Berkeley in 1989. His research interests include the economics of agricultural water use and the economic impacts of climate change on agriculture.

Dr. Gregg Garfin, Program Manager/Investigator, Climate Assessment for the Southwest (CLIMAS), Institute for the Study of Planet Earth; Adjunct Assistant Professor, Geography & Regional Development

Dr. Garfin is project manager for CLIMAS project, a NOAA-funded integrated assessment designed to identify and evaluate climate impacts on human and natural systems in the Southwest, and to identify climate services useful in assisting decision makers to cope with climate-related risks. As manager of the project, he works to bridge the science-society interface and to facilitate knowledge exchange across that interface. Dr. Garfin is trained as a climatologist, dendroclimatologist, and geographer. His research interests include climate variability, drought, and the effective delivery of climate science to decision makers. Dr. Garfin is co-chair of Arizona's drought monitoring technical committee. He is a contributor to the U.S. Drought Monitor. In 2004, he served as a member of the integrated team for the development of a National Integrated Drought Information System.

Niina Haas, Assistant Staff Scientist, Climate Assessment for the Southwest (CLIMAS), Institute for the Study of Planet Earth, University of Arizona

Niina Haas is an Assistant Scientist with ISPE, hired in July 2005 to join the Climate Assessment for the Southwest (CLIMAS) team. Her work focuses on the social component of an integrated assessment project designed to identify and evaluate climate impacts on human and natural systems in the Southwest. Niina has an M.A. in Anthropology from Northern Arizona University earned in 2003. Her background includes applied anthropology, Latin American studies, and international business. Previous research includes the lives of Mexican immigrant women in the U.S., domestic violence and law enforcement, inter-agency conflict, Tucson urban poverty, and social systems modeling.

Dr. Larry Howery, Extension Specialist and Associate Professor, Rangeland and Forest Resources, School of Natural Resources, University of Arizona

Dr. Howery is responsible for developing a program of education and research addressing the sustainable use of rangelands on both private and public lands. His three focus areas are: 1) Noxious, Invasive Plants -- inhibiting the spread of noxious, invasive plants on Arizona's public and private lands, 2) Animal Foraging Behavior and Distribution -- examining the role of animal foraging behavior as a possible mechanism to address large ungulate distribution problems on rangelands, and 3) Rangeland Management -- delivering science-based information that allows informed decision-making towards sustainable rangeland management practices. He earned a Ph.D in Range Science at Utah State University in 1993.

Dr. George W. Koch, Professor, Biological Sciences, Northern Arizona University

Dr. Koch's research examines the interactions between environmental conditions and plant and ecosystem function. He is particularly interested in how climatic and atmospheric change influence nutrient cycling and primary productivity. He edited the book *Carbon Dioxide and Terrestrial Ecosystems* and has published extensively in the areas of plant response to rising atmospheric carbon dioxide, herbivory effects on woodland ecosystems, and plant water relations. He is Co-Director of the U.S. Department of Energy's Western Regional Center of the National Institute for Climatic Change and on the Executive Committee of the Merriam-Powell Center for Environmental Research. He teaches courses in Plant Physiology, Ecology, Ecophysiology, and Global Environmental Change and participates in the National Science Foundation's Undergraduate Mentors in Environmental Biology Program at NAU. He earned a Ph.D. in Biological Sciences at Stanford University in 1988.

Dr. David C. Lightfoot, Research Associate Professor, Department of Biology, University of New Mexico

Dr. Lightfoot's research interests center on the ecology and taxonomy of North American crickets, grasshoppers, and katydids. Much of Lightfoot's research focuses on community composition of arid-land grasshoppers in relation to environmental factors. Lightfoot conducts long-term monitoring research and manipulative field experiments on insects, rodents, and reptiles for the Jornada Basin and for the Sevilleta Long-Term Ecological research programs (National Science Foundation) in New Mexico. His current research includes long-term monitoring studies of rangeland grasshoppers, other insects, vertebrate animals, and vegetation. Lightfoot also has conducted many arthropod inventories and monitoring studies for the National Park Service and the United States Geological Survey in New Mexico and Arizona. Lightfoot received his PhD from New Mexico State University in 1988 while studying plant-insect interaction ecology of desert creosotebush.

Dr. M. Susan Moran, Hydrologist, USDA Agriculture Research Service, Adjunct Professor, Soil, Water and Environmental Science, University of Arizona

Dr. Moran is a Hydrologist with the USDA Agricultural Research Service Southwest Watershed Research Center in Tucson, Arizona. She received her PhD and is an Adjunct Professor at the University of Arizona Department of Soil, Water and Environmental Science. Dr. Moran has also served on the NASA Science and Validation Teams to evaluate selected technologies for meeting science needs in the 21st Century. Her research addresses estimation of soil water and carbon flux at local and regional scales utilizing a combination of physical models and remote sensing techniques. She has a keen interest in practical research that will put high technology, particularly remote sensing, into the hands of resource managers.

Dennis Moroney, President, Society for Range Management – Arizona Section, Cross U Cattle Company, McNeal, Arizona

Dennis Moroney was raised and educated in Maricopa County. He graduated from the University of Arizona, College of Agriculture earning degrees in Animal Science and Agriculture Education. He has been a teacher and high school principal. He has a Masters Degree from Central Washington University. Moroney and his wife Deb owned and operated the Cross U Ranch in Yavapai County from 1992 to 2002. During that time he served as a founding member and chair of the Prescott Wildfire Habitiat Partnership Committee. Dennis and his wife also started the Santa Maria Mountains Group, an early collaborative management effort for guiding decision on their 50,000 acre public lands ranch. Moroney was recognized as the Arizona Game & Fish Dept. 1999 Wildlife Habitat Steward of the Year. He has also served on the AG&FD Heritage Public Advisory Council. Today the Moroney's operate the 47 Ranch in the Mule Mountains north of Bisbee, and continues to manage the operation using collaborative stewardship processes.

Dr. Thomas D. Sisk, Associate Professor of Ecology, Center for Environmental Sciences and Education, Northern Arizona University

Tom Sisk is an ecologist with the Center for Environmental Sciences and Education at Northern Arizona University. He is a native of New Mexico and focuses on science and policy issues affecting biodiversity and natural resources, primarily in arid North America. Tom directed an international program in tropical conservation biology for the Center for Conservation Biology at Stanford University, where he received his Ph.D. in 1992. Before joining the NAU faculty in 1996, Tom served as the Special Assistant to the Director of the National Biological Service, U.S. Department of the Interior. Currently, he teaches courses in ecology, conservation biology, and environmental policy, and oversees an active research group studying the effects of habitat fragmentation, livestock grazing, forest and fire management, and long-term changes in land use and land cover. He coordinates NAU's interdisciplinary M.S. program in Environmental Sciences and Policy, and serves on numerous editorial boards and advisory committees. In 2001 he was named a fellow of the Aldo Leopold Leadership Program of the Ecological Society of America, and he was recently elected to Board of Governors of the Society for Conservation Biology.

Jeffrey Whitney, USFWS, Arizona Ecological Services, Desert Fish Coordinator, Incident Commander, Southwest Area Type 1 Incident Management Team

Jeff Whitney is currently the Desert Fish Coordinator at the Arizona Ecological Services Field Office of the US Fish & Wildlife Service. He also serves as Incident Commander (IC) of a Southwest Area Type 1 Incident Management Team (there are 17 interagency Type 1 Teams nationally.) In this capacity, Mr. Whitney was the IC at both the Willow Fire of 2004 and Cave Creek Complex Fire of 2005 on the Tonto National Forest. During his career he has remained active Wildland Fire Management initially on Hotshot crews in the SW and on various Fire Management Teams. He was a Range Conservationist for 15 years in the SW with the US Forest Service. He also is a member of SRM, and in the past served AZ Section I&E Committee Chairman, Director and, Past President of the Arizona Section in 1994.

Dr. George Zaimes, Assistant Extension Specialist, Watershed Resources and Riparian Areas, School of Natural Resources, University of Arizona

Dr. Zaimes' goal is to develop a statewide extension program on watershed and riparian management for public and private lands. Dr. Zaimes joined the School of Natural Resources at the University of Arizona in 2005 as an assistant specialist/professor of watershed, riparian and rangeland management. His past research has focused on conservation practices of riparian areas in heavily agricultural landscape to mitigate non-point source pollutants reaching streams. In his current position he develops programs to inform the public on proper management practices on watersheds with an emphasis on the riparian areas and rangelands. He received a Ph.D. in 2004 in Water Resources, M.S. in Forest Biology in 1999 and B.S. in 1997 in Forestry, all from Iowa State University. Dr. Zaimes also received a *Ptyhio* in Forestry from the Technological Education Institute of Drama in Greece in 1995.