



The Falconer Natural History 2009 Spring Lecture Series



Sponsored by the
Atmospheric Sciences Research Center at the University at Albany

You are cordially invited to attend a series of free public lectures to be held **TUESDAY EVENINGS at 8:00 p.m.** in the John J. Sullivan Auditorium, CESTM Building, University at Albany, 251 Fuller Road, Albany, New York

March 31 Prof. James F. Kasting, Pennsylvania State University, “**The Origin of Life: How and When Did It Occur?**” Most theories of life's origin fall into three basic categories: 1) Darwin's "warm little pond", 2) the "seeding from space" model, and 3) the "hydrothermal vent" model. He will discuss the pluses and minuses of these models in the context of what we know, or think we know, about the nature of the early Earth.

April 7 Prof. Emeritus Jon Thiem, Colorado State University, "**Rabbit Creek Country: The Natural History of a Colorado Foothills Landscape.**" The landscapes of the Colorado Front Range are contested terrain, fought over by developers and conservationists. Thiem opens a window on present-day conflicts over the control and preservation of western landscapes by evoking the native meadows, streams, and Ponderosa uplands through the contrasting perspectives of explorer John C. Fremont, an Overland Trail emigrant, early ranchers, today's nouveau settlers, and wildlife managers. What might the future hold for these semiarid foothills, especially in a context of climate change and large-scale water projects?

April 14 Dr. Jack Kaye, Science Mission Directorate, NASA HQ, “**The Climate System as Viewed from Space.**” An overview of how the climate system appears when viewed from space is presented. It will include studies of the variability in the climate system, the forces which act on it, and global distribution of key earth system processes, as well as some local and regional consequences of climate variability and change, and how space-based data can support the improvement of predictive capability for the Earth system. NASA’s future plans for space-based observation of the climate system and how the anticipated data will support a broad range of scientific and societal objectives will also be described.

April 21 Prof. Steven Wofsy, Harvard University, “**Understanding Greenhouse Gases in the Atmosphere - past, present and future.**” The problem of greenhouse gases in the atmosphere is explored, starting with the "greenhouse effect" itself, the problem of understanding past and present changes in the atmospheric concentrations of greenhouse gases, projections for future changes in atmospheric composition and associated effects on climate. The lecture concludes with a discussion of decision-making in the face of uncertainty about future climate changes.

April 28 Prof. Chris Thorncroft, University at Albany - SUNY, “**West African Climate Variability and its Impacts on Society.**” An introduction to the West African climate is provided with an emphasis given to describing the nature and causes of the large year-to-year variations in rainfall that this region experiences and how this impacts African societies. The link between African climate variability and hurricanes will also be discussed.

May 5 Prof. José D. Fuentes, University of Virginia, Charlottesville, “**Plant-emitted volatile gases and their role in air quality and climate.**” Trees and flowers release a variety of volatile and fragrant gases. These compounds play crucial ecological roles such as attracting insects to visit and pollinate flowers. In the eastern USA, because of the large source of emissions in the presence of nitrogen oxides, volatile compounds can exacerbate air quality and indirectly impact regional climate. The lecture provides an overview on the contribution of plant-emitted volatile compounds to regional pollution and their indirect influence on climate and highlights how ambient pollution can interfere with processes such as pollination of flowering plants.

Donations to sustain the Natural History Lectures may be made out to the "University at Albany Foundation" and mailed to the University at Albany Foundation (Room - UAB-201), 1400 Washington Avenue, Albany, NY 12222.
Gifts are tax deductible. Address donations "Attention: Ray Falconer Fund"