



Falconer Natural History 2011 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 15 Prof. Lynn M. Russell, Scripps Oceanographic Institute, University of California, San Diego, “**Can Aerosol Particles Offset Global Warming?**” - Particles in the atmosphere play a key role in reflecting the Sun’s energy back to space, so they can potentially offset or accelerate global warming. This presentation will review the fundamental physics that describe how aerosols cool the climate. Recent measurements show the variety of sources that emit particles, as well as the uncertain processes that affect their growth in the atmosphere.

March 22 Prof. Victor Magaña Rueda, Centro de Ciencias de la Atmósfera, Universidad Nacional Autónoma de México, “**Urbanization and climate change: the case of central Mexico**” - The rapid urban growth of Mexico City during the 20th century led to increases in mean temperature and precipitation, along with more extreme weather events. Changes in climate have had negative impacts in the socioeconomics of Mexico City, and have rapidly increased vulnerability to extreme weather. This presentation will describe how changing climate in urban areas increases the risk of floods or droughts and affect society and what types of actions can be implemented in response to enhanced severe weather.

March 29 Prof. Mathias Vuille, Department of Atmospheric and Environmental Sciences, University at Albany, “**Climate Change in the South American Andes: will the glaciers survive?**”- Glaciers in the Andes of Ecuador, Peru and Bolivia provide an important environmental service by releasing melt water for agriculture, sanitation, drinking water, mining and energy production during the dry season when rainfall is absent. This talk will document the current glacier retreat in the region and discuss if and how climate change may change this dependence on glacier melt.

April 5 Mr. Doug Wolfe, Atmospheric Sciences Research Center, University at Albany, “**Whiteface Mountain - A Natural Laboratory**” - In the first scientific survey some 175 years ago, State Geologist Emmons commented that Whiteface Mountain had both tourism and scientific possibilities with its grand panoramic vistas and unusual flora and fauna. A discussion of the significant developments that have occurred since that time and ASRC-SUNYA involvement in the past half century will be highlighted.

April 12 Dr. Judy Shamoun-Baranes, Institute for Biodiversity and Ecosystem Dynamics, Universiteit van Amsterdam, the Netherlands, “**The intimate relationship between birds and their atmospheric environment**” - Birds are incredibly mobile animals and their ability to fly thousands, even tens of thousands of kilometers a year is truly spectacular. Yet what happens if birds get stuck in bad weather when flying, or great weather for that matter? Birds, especially migrants, must adapt their behavior to dynamic atmospheric conditions that change within a day, a season, between years and regions. How birds respond to such dynamic conditions and what the long-term consequences of their actions are can be studied using a combination of models and diverse measurement techniques. Furthermore, new tracking technology provides a glimpse into the amazing flight capabilities and movement patterns of birds.

April 19 Spring Break

April 26 Ms. Deborah Martin USGS, Denver, CO, “**Fires, watersheds, and risks: Comparing western and eastern landscapes**” - Though wildfires in the western United States are prominently featured in the headlines, fire is also considered one of the major ecological disturbances in eastern ecosystems. Moreover, eastern states, including New York, have an extensive wildland-urban interface where human settlements finger into woods and wildlands. This talk will compare the legacy of fire in western and eastern ecosystems and explore the role of fire in future climate scenarios.

Tax-deductible 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 UAB-201, 1400 Washington Avenue, Albany, NY 12222. Address donations "Attention: Ray Falconer Fund"