2013 Whitney and Anna Harris Conservation Forum

Energy Production Meets Biodiversity

Tuesday, November 19, 2013
The Living World, Saint Louis Zoo
5:30 p.m. Registration and Exhibit Viewing

Session 1: 6:00-6:30 p.m.
"Bat Fatalities at Wind Energy Facilities: Causes and Consequences"
Robert Barclay, Ph.D., University of Calgary

Robert Barclay is Professor and Head of the Department of Biological Sciences, University of Calgary. His research focuses on the behavioral and physiological ecology of mammals and birds. He is particularly interested in the relationships among roosting and foraging behavior, thermoregulation, reproduction and life histories of bats. His research group also studies the effects of various types of disturbance on bats, including fatalities of migratory bats at wind energy facilities, the impact of urbanization on prairie bats, and how logging, fire and bark-beetle infestations influence habitat selection.

6:30-7:00 p.m.
"Cumulative Impacts of Mountaintop Removal Coal Mining on Appalachian Ecosystems"
Brian Lutz, Ph.D., Kent State University

Brian Lutz is an Assistant Professor of Biogeochemistry at Kent State University. His research focuses on the movement of energy and elements through a wide variety of natural and human altered landscapes, with particular focus on understanding the environmental impacts of energy extraction practices at regional scales. His work on mountaintop-removal coal mining and hydraulic fracturing has been central to ongoing policy discussions surrounding energy security, climate change, and the environment.

Light Dinner and Exhibit Viewing: 7:00 -7:40 p.m.

Session 2: 7:40-8:10 p.m.
"Rapid Expansion of Natural Gas Exploration in North-Central Arkansas: An Aquatic Perspective"
Sally Entrekin, Ph.D., University of Central Arkansas

Sally Entrekin is an Assistant Professor in Biology, whose research focuses on the relationship between land transformation and biological communities and their associated processes, such as production and decomposition, in headwater streams and wetlands. A primary research goal is to understand how the acquisition, transformation, and transfer of energy and nutrients by biological communities in headwater streams and wetlands change in altered landscapes. She will be discussing a current project that examines the biological response of natural gas development on headwater stream ecosystems.

8:10-8:40 p.m.
"Hotspots of Genetic Diversity and Solar Energy Harvesting in the Mojave Desert"
Amy Vandergast, Ph.D., United States Geological Survey

Amy Vandergast is a research geneticist with the Western Ecological Research Center, USGS. Her work focuses on quantifying the impacts of human disturbance on connectivity, genetic diversity, and evolutionary potential of animal populations. She will discuss ongoing research efforts to model habitat and map genetic diversity in the Mojave Desert and examine potential impacts of renewable energy development.

Panel Discussion: 8:40-9:00 p.m.

Event is free and open to the public, but registration is required: Call: (314)-516-6203, email: hintonpa@umsl.edu.
Co-sponsored by: Whitney R. Harris World Ecology Center,
University of Missouri-St. Louis, Missouri Botanical Garden, Saint Louis Zoo,
and the Academy of Science-St. Louis.