## SCHOOL OF LIFE SCIENCES SEMINAR & WRIGLEY LECTURE

## Nitrogen: Too Much of a Good Thing

Global Nitrogen Issues and a Case Study from the Colorado Front Range

Friday, December 1, 2006 • 2:00 PM • Refreshments beforehand LSE 104, Arizona State University, Tempe campus



## JILL BARON

The mass production of reactive nitrogen since 1950 has been both an enormous boon for society and a growing bane. We are experiencing a major disruption of the global nitrogen cycle, with ecological ramifications that include fertilization and acidification of freshwaters, hypoxia, increased forest and grassland productivity, and loss of biodiversity. Among the world's hotspots where excess nitrogen is having measurable effects is in the Rocky Mountains above the Colorado Front Range. This talk will present current understandings of sources, ecological consequences, and policy options for reversing the trend of increasing nitrogen emissions.

Jill Baron is an Ecosystem Ecologist of the US Geological Survey and a Senior Research Ecologist of the Natural Resource Ecology Laboratory at Colorado State University. Baron's interests include applying ecosystem concepts to management of human-dominated regions and understanding the biogeochemical and ecological effects of climate change and atmospheric nitrogen deposition to mountain ecosystems. Baron has edited two books: *Rocky Mountain Futures: An Ecological Perspective* (2002) and *Biogeochemistry of a Subalpine Ecosystem* (1992). She has received numerous awards for her work, including the Department of Interior Meritorious Service Award in 2002, has been on the Governing Board of the Ecological Society of America, testified to Congress on acid rain, and is an associate editor for *Ecological Applications*.

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