

# Speaker Series Announced: Environmental Change and Infectious Disease

Mar 03, 2014

The Bennington College Program on the Environment is launching a speaker series examining the effects of environmental change, from climate change to urban and suburban development, on infectious diseases for both humans and animals.

The talks are open to the public as well as the campus community. All events will be held at 1:00 pm in the CAPA Symposium.

- **Monday, March 10:** [Dr. Felicia Keesing, Bard College](#)  
*Biodiversity loss and infectious diseases: the case of Lyme disease*
- **Monday, March 17:** [Dr. Katherine Smith, Brown University](#)  
*Global Change and Disease: Lessons from the Macroscopic*
- **Monday, March 31:** [Dr. George Luber, Centers for Disease Control and Prevention and Emory University](#)  
*The Health Consequences of a Changing Climate: Findings from the 3rd U.S. National Climate Assessment*
- **Monday, April 14:** [Dr. Karen Lips, University of Maryland](#)  
*Amphibian Population Declines: Complex Causes and Consequences for Global Amphibian Biodiversity Loss*

There will also be opportunities for informal meetings and discussions with visitors.

More information

## **[Dr. Felicia Keesing, Bard College](#)**

*Biodiversity loss and infectious diseases: the case of Lyme disease*  
[March 10, 2014](#)

Dr. Keesing and colleagues have done ground-breaking research on the ecological context of the spread of borreliosis—Lyme disease—in the eastern U.S., finding that risk of contracting Lyme disease is a function of complex ecological interactions, including the effects of land-use change and suburban development on patterns of biodiversity loss. Her lecture will build on the Lyme disease example to suggest that patterns observed for tick-borne diseases are found in a wide variety of other disease systems and to suggest powerful underlying mechanisms, knowledge of which could help us reduce disease transmission worldwide.

## **[Dr. Katherine Smith, Brown University](#)**

*Global Change and Disease: Lessons from the Macroscopic*  
[March 17, 2014](#)

Dr. Smith studies conservation medicine and the biogeography of disease. "Macroecology"—a discipline within ecology—strives to understand patterns in nature from a perspective encompassing large spatial scales, long temporal scales, and large data sets. It is difficult to "scale up" traditional research approaches such as experimental manipulation to investigate factors that operate at higher levels of organization such as populations, communities, or biogeographical regions. Her lecture will

explore application of macroecological approaches to study of the impacts of anthropogenic forces on infectious disease in humans and wildlife.

**[Dr. George Luber](#), Centers for Disease Control and Prevention and Emory University**

*The Health Consequences of a Changing Climate: Findings from the 3rd US National Climate Assessment*

[March 31, 2014](#)

At an ever-increasing rate, evidence is accumulating that the earth's climate system is warming and that health consequences of this warming are already evident. From the direct effects of weather extremes on morbidity and mortality, to the potential for changes in disease ecology and geography brought about by "state shifts" in the earth's biosphere, climate change will be a defining issue for public health in the 21st Century. Dr. Luber will review findings of the forthcoming '3rd US National Climate Assessment', focusing on the public health sector, and will describe adaptive actions, already underway, that seek to anticipate these health threats and manage them into the future.

**[Dr. Karen Lips](#), University of Maryland**

*Amphibian Population Declines: Complex Causes and Consequences for Global Amphibian Biodiversity Loss*

[April 14, 2014](#)

Unprecedented environmental change, including climate change, is driving massive alterations to the world's flora and fauna. One factor in these changes is the emergence of new infectious diseases of wildlife, forests, food crops, and us. Not all species of wildlife respond equally to these threats, and amphibians are suffering disproportionate biodiversity loss. Dr. Lips' research focuses on why species of amphibians differ in their response to global threats such as emerging infectious disease and global climate change, how those changes affect other parts of the ecosystem, and how we might use this information to prioritize conservation decisions. Her lab uses field studies, experimentation and modeling to study the biology of as they are affected by disease and climate change.