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University of Pennsylvania  
Institute for Environmental Studies

Presents



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## Ecological consequences of climate change in the Mongolian steppe

Experimental warming treatments are used to elevate soil and air temperatures in order to mimic conditions expected under global climate change, with the goal of identifying consequences for the ecology of the system. Such studies are common in Europe and North and South America, but there are large regions of the globe and diverse ecological systems where such experiments have not been conducted. Together, researchers from the National University of Mongolia, scientists from Penn Biology and Earth and Environmental Science are experimentally elevating summer temperatures in the semi-arid, montane steppe of northern Mongolia, which is still used by nomadic herders as it has been for thousands of years. Dr. Casper will describe the ecology of the system and how the timing and amount of flower production are altered by these experimental treatments. The passive warming chambers we employ also interfere with precipitation, and we take that into account as we evaluate the responses we see. Additionally, after examining responses in years with different patterns of precipitation and to experimental additions of water, we conclude that changes to precipitation may prove much more important to this system than small increases in temperature.

**Date: October 12, 2011**

**Time: NOON - 1:30 pm**

**Place: Carolyn Hoff Lynch Auditorium**

On the Penn campus: Chemistry Building  
34 & Spruce Sts. (enter on 34 St)

**NO REGISTRATION REQUIRED**

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NO FOOD OR DRINK PERMITTED IN THE AUDITORIUM

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