

To the WAS*IS Selection committee:

I wish to be considered for the WAS*IS workshop in July of 2007. The goals of the WAS*IS workshop lie at the heart of my research agenda, which addresses the role climate variability plays in human health and well-being. My dissertation examined sequences of climatic events leading to outbreaks of Hantavirus Pulmonary Syndrome in the western United States. Guiding this research is the idea that the timing, frequency and magnitude of individual events are an important part of understanding climate. To that end, I am looking for ways to represent climate as a series of events that effect infectious disease outbreaks. Over the long term, I see my research evolving toward a better understanding of how unusual weather patterns shape human vulnerability.

Given this vulnerability to weather, I think it is important that future generations of decision-makers are able to analyze and interpret weather-related data. I have introduced an Applied Climatology course at Illinois State University where students will learn about primary and secondary atmospheric data sources, methods for analyzing data, and communication. By participating in this workshop, I hope to learn new tools for investigating weather-society interactions, which I can also incorporate into my class. I invested a significant portion of my start-up in building a small, applied climate research lab, not only to support my own research agenda but also as a place to train students to do climate-society research. It is my hope that this lab will eventually become a resource for communities and stakeholders to turn for consultation.

One of my goals for this workshop is to find new ways to integrate risk perception and subsequent decision-making into studies of climate-health relationships. I recently started a new project investigating the 2006 Idaho West Nile Virus outbreak. The study examines local weather conditions to determine if subtle changes in weather patterns allowed mosquito populations to grow in recent years. In June and July, I will be collecting mosquito habitat data in the Snake River Valley, where the bulk of the Idaho cases occurred. I have started processing the climate data, and this summer, I plan to integrate land-use data into the model. In the second phase of this project, I intend to look at individual decision-making in high-risk areas to determine how people assess their own personal risk. The Idaho Department of Health & Welfare issued public service announcements about West Nile Virus, but they found that few people took adequate precautions against mosquito-borne diseases. The point of this research is to develop an early warning system based in part on local weather that public health officials and local populations can use to assess risk and tailor prevention campaigns to target places that are at increased risk for an outbreak.

I look forward to the opportunity to engage in the WAS*IS workshop. I thrive on finding new connections between disciplines that enhance my own research. New perspectives on my research not only improve the value and quality of the research, but also help me develop different ideas about how to approach complex problems. I characterize myself as a problem-solver, intrigued by the pursuit of the problem and the possibility offered by new methodological approaches to understanding climate-society relationships. In addition to my curiosity and enthusiasm, I bring to this workshop experience with methods in climate, epidemiology & medical geography, and GIS; knowledge of a variety of data types and sources; and an ability to manage complex tasks and projects.

Sincerely,

Heather K. Conley