

Forest & Natural Resource Management Seminar ***Inspiring integration and innovation***

Wednesday, September 27, 2017

4:00-5:00 followed by a social hour

100 Skok Hall

St. Paul Campus

Join the webex by following this link: <http://z.umn.edu/FNRM2017sep>

Studying our Changing Planet from Above: Remote Sensing Research in Minnesota and Queensland presented by Joe Knight, Associate Professor

This talk will present research done in collaboration with the University of Queensland in Brisbane, Australia. The focus of the research was on developing high-resolution image classification methods that allow for discrimination of fine scale landscape parameters in urban and suburban environments. In this collaborative project, the landscape information will be applied in multiple ways: to assess land change, map solar power suitability, and identify roof types.

BIO: Joe Knight is an Associate Professor of Remote Sensing in the Department of Forest Resources. Dr. Knight studies how changing land use affects both natural resources and humans. He uses geospatial science methods in applications such as: identifying and characterizing natural and anthropogenic landscape change, describing landscape-human interactions that lead to exposure to infectious diseases, and developing thematic accuracy assessment methods.

More people, drier skies – How often will Melbourne run out of water? Can we manage the forest to reduce that frequency? presented by Paul Bolstad, Professor

Melbourne, a metropolitan area of 5 million, was within 30 days of no drinking water in 2007. Southeast Australia suffered a millennial drought during the prior decade, depleting a reservoir system that had been deemed ample, according to pre-climate change metrics.

I'll describe the motivation, methods, and partial results of a series of ecosystem water cycle studies within Watershed Hydrology program in the Department of Ecosystems and Forest Science.

BIO: Paul Bolstad is a Professor in the Department of Forest Resource Management with interests and experiences in forest water and carbon cycles, landscape ecology, and spatial analytical methods.

Social vulnerability to bushfire in South Australia presented by Mae Davenport, Professor

I will discuss findings from a multiphase study of social vulnerability to bushfire impacts in two South Australian bushfire-prone regions. Specifically, I will explore the unique social structures and norms driving women's perceptions of bushfire risk, attitudes toward vegetation management, and bushfire preparedness behaviors. Data were gathered from female residents in the study areas through a mail survey (n=431), 10 key informant interviews, and two focus groups. Findings suggest women's risk perceptions are high and about one-quarter of women surveyed feel very vulnerable to bushfire. I will examine women's roles in bushfire management and biodiversity conservation and discuss strategies for further empowering women in community organizing and leadership roles.

BIO: Mae Davenport is a Professor in the Department of Forest Resources and Director of the Center for Changing Landscapes at the University of Minnesota. Her research examines two primary areas: (1) human beliefs and behaviors in the context of ecosystem changes and (2) community capacity to engage in sustainable environmental management. She is particularly interested in environmental planning, policy, and programming that inspires individual and collective action. Mae recently co-authored an e-book titled [Inspiring Action for Nonpoint Source Pollution Control](#). The book describes a new approach for water resource protection informed by systems thinking and community capacity building.

Seminars will be the last Wednesday of the month with the next ones Oct 25 and Nov 29.