



# Intersections of Environmental Management and Biosecurity in Animal Agriculture

December 14, 2018

2:30 pm (eastern), 1:30 pm (central), 12:30 pm (mountain), 11:30 am (pacific)

Environmental management and biosecurity are strongly linked; those who advise the livestock and poultry industry on environmental issues are positioned to not only understand their role in biosecurity, but to also better incorporate biosecurity advice into their consulting. Additionally, there are common themes around risk perception and tolerance in decision making regarding adoption of environmental and biosecurity best practices. A consortium of institutions, led by University of Vermont, is conducting in a multi-year USDA CAP project titled, "A human behavioral approach to reducing the impact of livestock pest or disease incursions of socio-economic importance." Two issues emerging from this research present themselves as relevant to LPELC audiences. 1) the potential of service providers and supply chain partners in animal industries to be vectors in the spread of disease causing pathogens, as demonstrated through hog supply chain modeling and 2) social science findings on producer concepts of risk and adoption of biosecurity practices. *An application for continuing education credit for Certified Crop Advisors (CCAs) and members of the American Registry of Professional Animal Scientists (ARPAS) will be submitted.*

**Dr. Scott Merrill** is a Research Assistant Professor in the Plant and Soil Science Department and Managing Director of the SEGS lab. He is a systems ecologist with research spanning a wide range of both natural ecosystems and social-ecological systems. Projects include examining dynamics of change within pest-crop agroecosystems including aspects of climate change, examining ways to nudge human behavior to help protect the health of our livestock herds, and looking at factors motivating behavior that affects water quality in the Lake Champlain watershed. In the SEGS lab, he uses experimental gaming as a novel technique for collecting data to examine decision making in social-ecological systems. An important goal of this work is the creation of applicable and predictive models to inform best management practices. Phone: (802) 656-0711; E-mail: [Scott.C.Merrill@uvm.edu](mailto:Scott.C.Merrill@uvm.edu)



**Dr. Gabriela Bucini** is a post-doctoral research fellow in the Plant and Soil Science Department at the University of Vermont (UVM). Her research is focused on developing agent-based models depicting the hoofstock industries (e.g., dairy) including the integration of experimental gaming data into these agent-based models. She is involved in a broader project that seeks to reduce the impact of potential emergent diseases on herd health (PI Dr. Julie Smith, Department of Animal Sciences, UVM). Gabriela's Ph.D. is in ecosystem ecology and she has worked on projects including tree cover mapping and modeling in African savannas, temporal and spatial dynamics of pine savannas in the Everglades National Park, Florida and local downscaling of General Circulation Models (GCMs) to project climate across the Northeast. E-mail: [Gabriela.Bucini@uvm.edu](mailto:Gabriela.Bucini@uvm.edu)

**Tommy Bass** is the Livestock Environment Associate Specialist at Montana State University. He holds degrees from the University of Georgia and Montana State. His current focus includes manure and nutrient management, AFO/CAFO compliance, and conservation related to animal agriculture. In addition, he also conducts programming in agro-security and agro-emergency preparedness. He is the animal agriculture contact for Montana in the national Extension Disaster Education Network (EDEN). Phone: (406) 994-5733; Email: [tmbass@montana.edu](mailto:tmbass@montana.edu)



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