

The Department of Environmental Studies at SJSU

is pleased to present a public research presentation

Thursday, February 9, 2012, 10:30 to 11:45 a.m. in

Clark Hall Room 243

Dr. Alex Gershenson

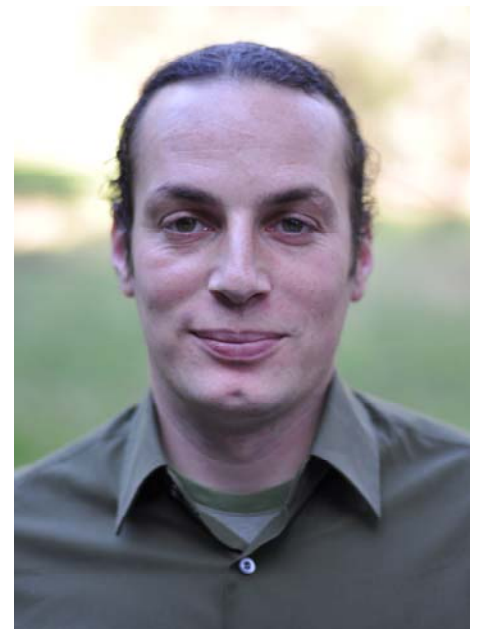
Candidate for the position of Assistant Professor

Horseshoes, Hand Grenades, and

Carbon Offsets: The Soil Carbon

Black Box in Science and Policy

Global soil carbon reserves constitute a reservoir that is four times greater than all the carbon stored in terrestrial biomass. Even slight changes in the functioning of this reservoir can have significant effects on the amount of greenhouse gases in the atmosphere, and yet the scientific understanding of the processes that occur within the soil carbon pool is poor. Soil carbon sequestration is a prominent feature of almost every proposal to mitigate GHG emissions and provide carbon offsets. However, most such proposals fail to take into consideration the complexities associated with reliance on such uncertain reservoirs, or tend to include only a cursory analysis of the inherent pitfalls. What makes successful policy design even more challenging is that there is a significant amount of uncertainty associated with the processes that we do understand. My research has ranged from studies to improve our understanding of the belowground carbon dynamics to the design of next generation policies that will more accurately reflect the inherent uncertainty of soil carbon models. I will discuss the factors that are likely to affect carbon inputs in the Sierra Nevada and the effects of plant growth and changes in temperature on carbon emission from soils. I will also examine the historical place of soil carbon in US climate policy and describe some of my current research in dealing with uncertainty at the early stages of policy implementation..



ALL Welcome; light refreshments provided