ISTeC (Information Science and Technology Center) Research Advisory Committee
Retreat on the Scientific and Engineering Foundations of Information Science and
Technology
Saturday, May 8, 8:15am to 3:00pm, Lory Student Center

DOSSIER

Name:	Colleen Webb
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Research Interests (one paragraph):

I am broadly interested in the evolution of traits important in ecological interactions and in how such evolution shapes ecosystems. I use a theoretical framework to study how selection at the individual-level affects the extinction and persistence of populations or ecosystems. For example, I have investigated how the indirect effects of selection can affect a population's environment, resulting in decreased mean fitness and extinction. Currently, I am looking at how ecosystem level characteristics, like modularity, enhance the robustness of ecosystems to disturbance (resiliency), and whether these higher level characteristics can evolve from selection at the individual level. I use a variety of analytical and simulation methods in my work. In addition, I maintain a strong interest in comparative and ecological genomics.

Titles of current research projects (funded or not):
Plague as a model for low prevalenze/epizootic disease dynamics
A trait-based framework for modeling ecosystem response to change
A theoretical and empirical test of modularity and scale matching in the spread of the mountain pine beetle

Current collaborations inside and outside your department:
Mike Antolin, CSU, Biology
Mark Simmons, CSU, Biology
Ken Gage, CDC
Paul Stapp, Cal State, Biology
Van Savage, Harvard, Bauer Center for Genomics
Jon Norberg, Stockholm University, Systems Ecology
Mark Bieda, The Santa Fe Institute

Breakout sessions you would like to attend at the retreat
(please rank order from 1 to 3):

1	Alternative models of computing

2	Computing and information processing in support of basic science and engineering
	Dense sensor networks
	Imaging and tracking
	Automatic image, text, and speech recognition for multimodal interfaces and search engines
	Other (Please suggest a title.)

Faculty at CSU whom you would like to see included into your preferred breakout group:

One optional paragraph you would like other participants to read before the retreat: