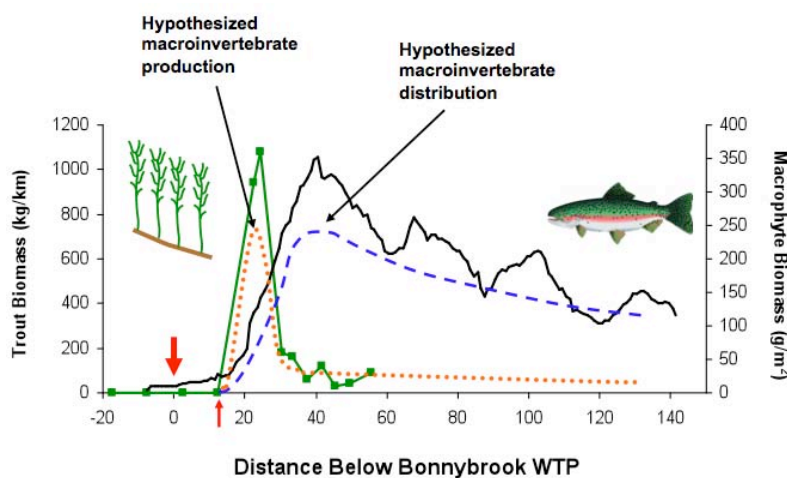


Biology Department Seminar
Monday December 1, 4:00 PM, CLS 005
Dr. Kurt E. Anderson
University of California, Riverside

Predicting ecological responses to changing environments: Models for aquatic and terrestrial systems.



Many organisms encounter a high degree of environmental variability. Much environmental variability works across multiple spatial and temporal scales, making it difficult to predict ecological outcomes empirically, even when using large amounts of data and sophisticated statistical

approaches. I argue that determining the underlying ecological mechanisms is an essential prerequisite to understanding links between environmental variation and ecological outcomes, and that mathematical models can help elucidate the broader implications of mechanisms found to occur at one particular scale in space or time. I will use results from such models to characterize the spatial and temporal scales over which ecological systems respond to environmental variation in streams and rivers as well as selected terrestrial systems. I will discuss my modeling results in terms of data requirements and conservation implications.