

Biogeochemical cycles group 1 discussion summary

Initial discussion considered types of drivers ranging from an emphasis on dry deposition of nutrients in urban areas to shocks to national energy policy that have ecological ramifications. The general question of the capacity of a system to buffer perturbations, such as the capacity of soil microbes to buffer sulfur deposition, was briefly considered.

Most of the discussion centered on the notion that alterations in the variance structure of ecosystems may be related to thresholds in structure and function. Un-aliased characterization of the variance of environmental drivers and ecological responses is difficult and will depend on deployment of modern sensor networks. Human activities are expected to modulate the variance structure, and people's perception of risk or benefit may be related to the variance. Hence, options for social science connections seemed possible.