Mananged natural resource systems are complex dynamic systems with strong interdependencies among human and ecological components. Management of these systems has become more difficult, as scales, impacts and consequences have increased. Climate change presents even more complications and uncertainties for ecological and social processes and outcomes.

Many scholars and managers are using the concept of resilience to reconfigure management approaches, plans and actions to deal with shifting biophysical and social climates. Managing ecological resilience requires the recognition of multiple regimes, the complex processes by which people relate to and value specific regimes, the feasibility and practicality of reversing unwanted regime shifts and the capacity to transform from one regime to another. Our ability to manage such regimes is an indication of our adaptive capacity to confront the complexities of a world of accelerating surprises.

About Lance Gunderson
Lance Gunderson’s ongoing research interests evolve around understanding how ecosystem processes and structures interact across space and time scales and how scientific understanding influences resource policy and management. He was the founding chair of the Department of Environmental Studies at Emory University from 1999-2005. He has served as the executive director of the Resilience Network, as Vice Chair of the Resilience Alliance and on the Science Advisory Board of the Grand Canyon Monitoring and Research Center, and Chair of the National Academy of Sciences, National Research Council Committee on Ecological Impacts of Road Density. He is also Co-Editor in Chief of Ecology and Society and a Beijer Fellow of the Beijer Institute for Ecological Economics Swedish Royal Academy of Sciences.