

Science for Parks and Parks for Science
UC-Berkeley, 25-27 March 2015
Plenary Talk Title and Abstract
Monica G. Turner

Climate change and novel disturbance regimes in national park landscapes

National parks anchor many of our last intact natural landscapes and offer unparalleled opportunities for scientists to understand baseline ecological responses to global change. As climate warms, the frequency, severity and extent of natural disturbances are changing profoundly. Understanding how, when, where and why these changes may influence national parks is urgent for park management and conservation. In the northern Rocky Mountains, fire and insect outbreaks are key drivers of landscape pattern and ecosystem function. Long-term studies in Greater Yellowstone have documented tremendous ecological resilience to these natural disturbances, but projected climate change may lead to novel disturbance regimes and unforeseen ecological responses. Drawing primarily from my research in Yellowstone and Grand Teton National Parks, I highlight the critical role of national parks as living laboratories for scientific research and the importance of science for park management during these times of rapid change.