

## **Climate Change and Conservation: A Global Perspective and Local Relevance in the Adirondacks**

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Dr. Jodi Ann Hilty has served as the Director of the North America Program for the Wildlife Conservation Society since October 2007 and is based out of Bozeman, Montana. As Director, Dr. Hilty provides leadership on scientific applications to natural resource management and conservation. Trained as a conservation biologist at the University of California, Berkeley her passion is focused on finding creative science-based solutions to resolve critical conflicts between humans and natural world. Dr. Hilty has co-authored or co-edited three books in the last decade. Her most recent book that just came out is *Climate and Conservation: Landscape and Seascape Science, Planning, and Action*. She also sits on the boards of several conservation and academic organizations, is a member of the professional Society for Conservation Biology, and serves as a science member on a National Parks Service advisory board planning committee.

**Background:** With growing evidence of actual and potential climate change impacts on biodiversity, what adaptation solutions has the conservation community put forth?

It is widely recognized that the current system of protected areas is inadequate to protect biodiversity from the threat of climate change. Yet rather than focusing on a narrow strategy of expanding the global coverage of formal protected areas, scientists and conservationists have instead argued for integrated *large landscapes*.

To what degree is this oft-cited solution possible?

We reviewed nineteen global case studies from around the globe (including polar, equatorial, freshwater, marine, montane, and temperate systems) to assess how climate change is incorporated into science, planning, and action. We found both similarities and differences in approaches, tools used, and challenges faced based on local ecological, political, and socio-economic circumstances. In regions experiencing high poverty, lack of science was likely to be a major stumbling block, and solutions tended to emphasize incorporate sustaining livelihoods. The critical impact of changes in water regimes was highlighted in the freshwater and marine systems, where adaptive management was emphasized. In montane systems, which are relatively more intact, working across political boundaries has met with mixed success, and multi-level stakeholder buy-in has been an important variable. In polar systems, human impacts are projected to increase with more access to the regions, and efforts are focused on finding refugia, places most likely to change most slowly. The case studies represent an ongoing set of experiments as to how best to conserve biodiversity during this time of rapid climate change. Dr. Hilty will relate these global case studies to the Adirondacks.