



California Landscape Conservation Cooperative

2012 Highlights



About CA LCC

Mission

The CA LCC is a management-science partnership created to inform and promote integrated science, natural resource management and conservation to address impacts of climate change and other stressors within and across ecosystems.

Goals

- Fosters collaboration and integration of science and management.
- Supports development of technical products for natural resource management.
- Facilitates information acquisition, interpretation, translation, exchange and availability.
- Communicates information within and outside the LCC Community.

Guiding Principles

- Strengthens existing partnerships by providing new science capacity to help address priority conservation needs.
- Provides enhanced scientific capabilities to help conservation delivery in consideration of climate change.
- Provides science information and tools to help address issues impacting management of wildlife and associated ecosystems.
- Supports and enhances cooperation across ownership and management boundaries.
- Provides a forum for partners to develop shared conservation goals, objectives and strategies on broad landscape scales.

Looking Towards the Future

Addressing Needs of Resource Managers

A major emphasis over the last year and a half has been to conduct natural resource management needs assessments and to develop a strategic plan. The CA LCC sought to learn what relevant science resource managers need to help with their decision-making and to identify the best way to provide that information. Starting in 2011, information from more than 300 resource managers, conservation practitioners, researchers, and focus groups was collected through interviews and workshops. The results identify challenges, decision processes, opportunities, needs, and potential priorities associated with managing ecosystems, habitats, and species in the CA LCC region in light of climate-related change and other stressors.



Key Findings

Resource managers and agencies expressed a diversity of conservation needs and issues across the CA LCC. Resource managers indicated that:

- They prioritize work based on day-to-day issues that arise.
- They want more facilitated interaction between scientists and other managers.
- Adaptive management is not yet occurring in resource management.
- They would like help thinking more globally.
- They want guidance to make sense of climate information and how to use it.
- They want assistance in the application of models as well as synthesis and translation of the data.
- They would like help identifying strategies they can incorporate into their current planning efforts.

"We need help in deciphering the latest conservation science that is out there right now. I'm so busy with my current job and I don't have the time to read through everything. I'd like a central place that points me to information I need to know."

– From Manager Interview

Developing a Strategic Plan

The CA LCC is working with the Steering Committee to develop a strategic plan for the next five years. This plan will guide the CA LCC in its coordination of efforts on priority landscape issues for the region.



Web Resources



CA LCC Website

The CA LCC has a new interactive website where you can look up webinar recordings, upcoming events, trainings, and workshops. There are also the findings from Phase I and II of the strategic planning process and summaries from the Steering Committee meetings. The CA LCC website also links to the Climate Commons website.

The website provides useful information about the CA LCC's 25 funded projects. The categories of projects include:

- Decision support tools & data
- Monitoring & modeling methods
- Population & habitat assessments
- Vulnerability assessments
- Conservation planning & design

Visit the CA LCC website at: www.CaliforniaLCC.org.



Climate Commons

The CA LCC is meeting partner information needs through development of the Climate Commons, which provides a one-stop-shop access to information that can assist with management decisions.

In year two of development, this website is where land managers and their technical staff can quickly find the climate science they need and can communicate with each other and with the researchers producing the data.

The Climate Commons has:

- Climate science datasets
- Document library
- Web resources
- Articles on key topics
- CA LCC project catalog

Visit the Climate Commons at: <http://climate.calcommons.org>.

Featured Projects

Highlights

Since 2010, the CA LCC has funded 25 science-based projects, totaling \$2.5 million. With partner contributions, more than \$6.5 million has been invested in creating science-based tools and products for CA LCC partners.

The CA LCC provided \$775,000 in funding for the 8 collaborative science projects selected for 2012.

Rangeland Conservation and Ecosystem Services

The CA LCC supports rangeland conservation through a project that identifies future threats from climate change and land use change and how this could potentially threaten the ecosystem services of wildlife habitat, groundwater recharge, and carbon sequestration on rangelands. An important part of this work is an economic analysis to look at costs and benefits under different future scenarios and to help identify economic incentives to maintain rangeland habitat.

This project done by USGS looks at high priority conservation areas within the California Rangeland Conservation Coalition (CRCC) study area, which includes the foothills around the Central Valley and most of the southern Inner Coast Range.

Species Response to Climate Change Impacts

The CA LCC also funds efforts to help understand and predict how plants and animals will respond to changing environmental conditions. A publication by UC Berkeley researchers found a sharp decrease in the range for Belding's ground squirrel in the Sierra Nevada of California. They discovered that the Belding's ground squirrel had disappeared from 42 percent of the sites where they were recorded in the early 1900s.



Although the Belding's ground squirrel is widespread, the rapid decline in its distribution is of concern, because it is an important source of food for raptors and carnivores. However, the study suggests that even when climate change causes large range declines, some species can persist in human-modified areas.



California Climate Change and Landscape Connectivity

In a study funded by the CA LCC, the USGS looked at landscape connectivity in California to help decision makers prioritize corridors to reduce the negative effects of climate change. The corridors identified from the California Essential Habitat Connectivity (CEHC) project and data from a variety of general circulation models were used to determine the climate stability of protected areas. Due to the uneven rate and magnitude of climate change across California, they found that certain protected areas with high exposure could receive great benefits from expanded connectivity.

Results from these and other projects can be found on the Climate Commons:
<http://climate.calcommons.org>.

Working Across the Landscape

Collaborating

Bay Area Ecosystems Climate Change Consortium

The CA LCC worked with BAECCC on a workshop titled *Climate Smart Actions for Natural Resource Managers* to help managers make informed climate smart decisions in the Bay Area. Relevant information and tools are being hosted on the Climate Commons to support this effort.

Southern Sierra Landscape Conservation Cooperative

The CA LCC is working with the National Park Service, U.S. Forest Service and others to organize a Southern Sierra Nevada Adaptation Workshop to be held in February 2013. Over 100 participants are expected to attend the event this winter to identify shared conservation goals and to explore regional scale strategies to conserve Southern Sierra Nevada natural resources in the face of rapid change and an uncertain future.

California Department of Fish and Game

The CA LCC has partnered with the CDFG on the online pilot Climate College curriculum. This new 10 month course provides the latest climate science from local experts and focuses on strategic conservation approaches for resource managers. The CA LCC will also help the CDFG update the State Wildlife Action Plan.

North Pacific Landscape Conservation Cooperative and Northwest and Southwest Climate Science Centers

The CA LCC is linking research on sea level rise impacts up and down the Pacific Coast by supporting the USGS and others to model potential impacts to tidal marsh ecosystems. These results are directly relevant to natural resource managers. The CA LCC's partners include the North Pacific LCC, Northwest Climate Science Center, Southwest Climate Science Center, National Oceanic and Atmospheric Administration - National Estuarine Research Reserve System, state agencies, and National Wildlife Refuges.

Getting the Word Out



Monthly Webinar Series

- California Climate Change and Landscape Connectivity: Enhancing Climate Stability through Corridor Prioritization
- Climate Change Vulnerability Assessment for Rare Plants
- USGS Effort to Model Sea-Level Rise for Tidal Salt Marsh Along the Pacific Coast
- Demographic Impacts of Climate Change on Tidal Marsh Birds: Population Modeling and Vulnerability Assessment
- Using Pilot Projects to Test Climate Change Adaptation Strategies in Jordan
- Impact of Sea Level Rise on Coastal Plant Species
- The Climate Commons



Supported Workshops

- Cal-IPC Workshop – Tahoe City, California, August 2011
- Structured Decision-Making Workshop – California State University, Sacramento, November 2011
- The Western Section Wildlife Society – Riverside, California, February 2012
- Pacific Coastal Fog Workshop – San Francisco, California, April 2012
- San Francisco Commons Workshop – May 2012
- SWCSC Climate Summit – Tucson, Arizona, June 2012
- Climate Ocean Indicators Workshop – San Francisco, California, August 2012
- Economic and Landuse Change on Rangeland – August 2012



Presentations

- Wildlife Society, Western Section – February 2012
- U.S. Regional Association of the International Association for Landscape Ecology Annual Symposium – Newport, Rhode Island, April 2012
- North America Congress for Conservation Biology – Oakland, California, July 2012
- California Invasive Plant Council – Sonoma, California, October 2012
- Delta Science Conference – Sacramento, California, October 2012



The CA LCC Leadership

Steering Committee Members



For more information, visit www.californialcc.org or contact:

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