

Climate Change Adaptation Planning

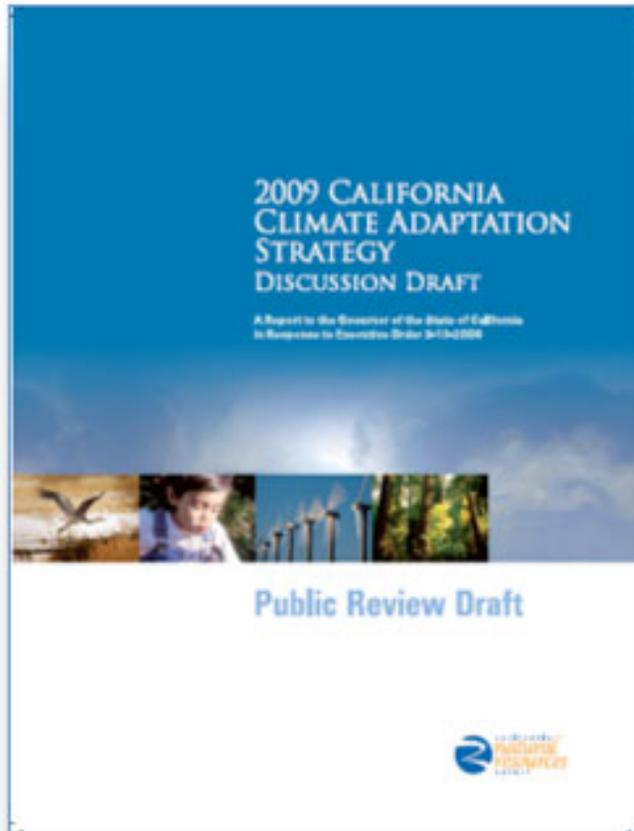
and the

California Essential Habitat Connectivity Project

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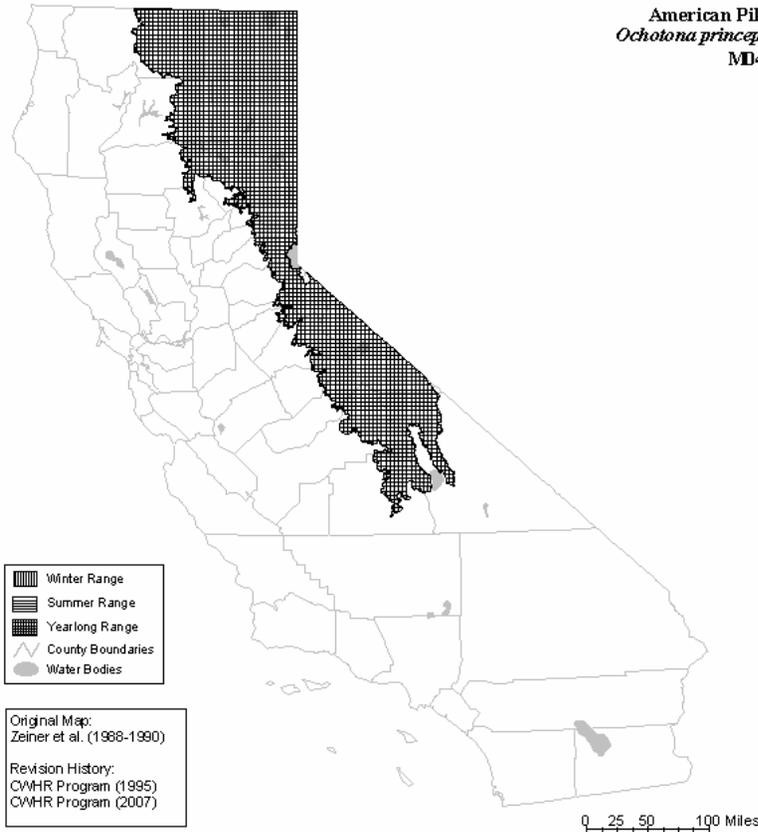


One strategy of the Biodiversity and Habitat Sector of the 2009 California Climate Adaptation Strategy calls for creating a large scale, well connected, sustainable system of protected areas across the state.

California Wildlife Habitat Relationships System

California Department of Fish and Game
California Interagency Wildlife Task Group

American Pika
Ochotona princeps
MD43



Range maps are based on available occurrence data and professional knowledge. They represent current, but not historic or potential, range. Unless otherwise noted above, maps were originally published in Zeiner, D.C., WF. Laudenslayer, Jr., K.E. Mayer, and M. White, eds. 1988-1990. California's Wildlife. Vol. I-III. California Depart. of Fish and Game, Sacramento, California. Updates are noted in maps that have been added or edited since original publication.

This strategy follows an assumption that climate change will cause shifts in the ranges and distributions of individual species.

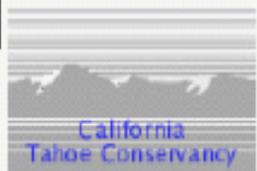
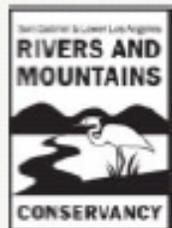
Those species that have the capacity to shift their ranges will require movement corridors that are not blocked by natural landscape features or human development.

The California Essential Habitat Connectivity Project

will provide modeled data and guidelines for identifying large, contiguous blocks of remaining intact habitat in California and linkages between them.



U.S. Department of Transportation
Federal Highway Administration



Products include:



- statewide wildlife habitat connectivity map and model
- assessment of the biological value of identified connectivity areas
- strategic plan to supplement the map and help end users interpret it

Project goal is to produce a statewide assessment of essential habitat connectivity that:

complies or is consistent with recent legislation

AB 2785 (2008) requires CDFG to map essential wildlife corridors and habitat linkages

Section 6001 of the Safe Accountable Flexible Efficient Transportation Equity Act (SAFETEA-LU) of 2005 requires that impacts to habitat connectivity be avoided, minimized or mitigated during the transportation planning process

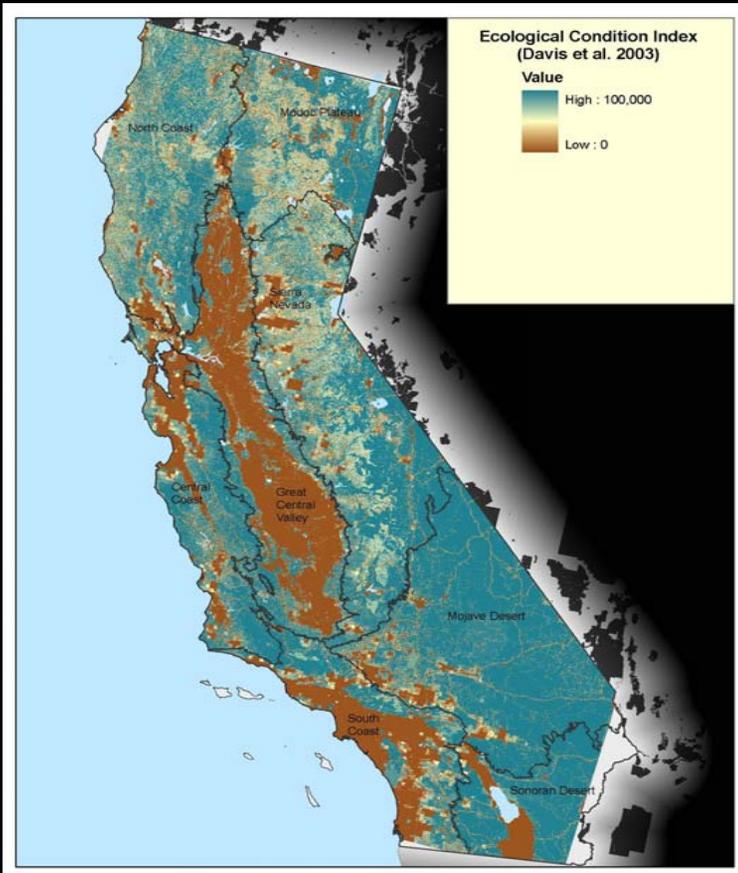
Project goal is to produce a statewide assessment of essential habitat connectivity that:



builds upon earlier efforts

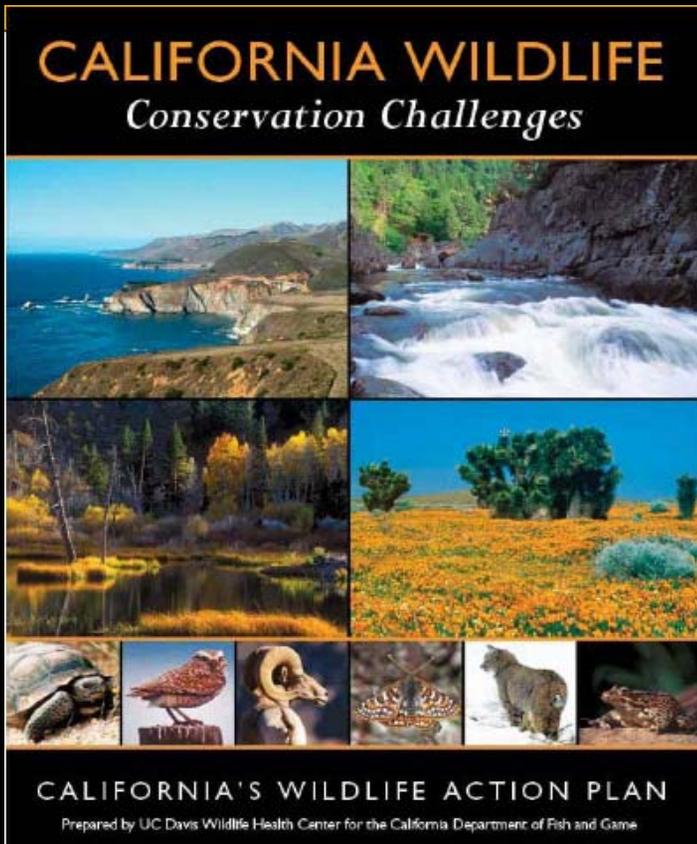
Missing Linkages (2001) invited experts to identify linkages at risk in a workshop setting. However, linkages were not prioritized and some were found to be missing.

Project goal is to produce a statewide assessment of essential habitat connectivity that:



is transparent,
scientifically-defensible
and repeatable

Project goal is to produce a statewide assessment of essential habitat connectivity that:



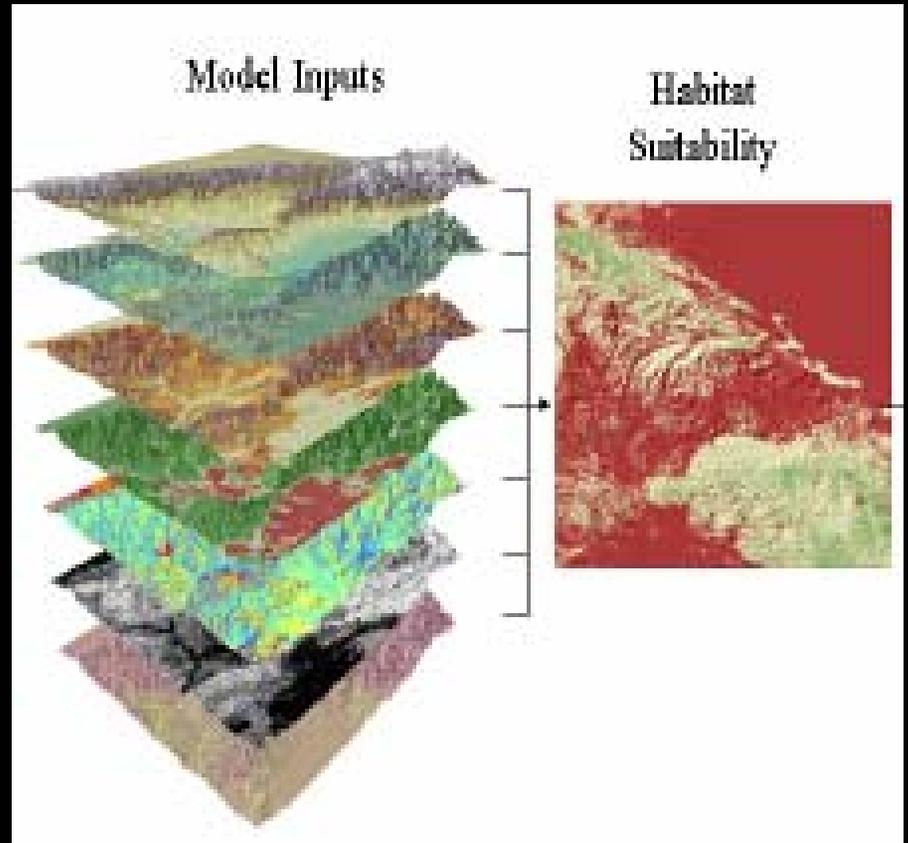
complements and expands the State Wildlife Action Plan

Connectivity is identified as a key action both statewide and in 4 of 8 terrestrial ecoregions, but there is no map of key linkages and no list of priorities.

Progress to Date

Existing data layers and models have been used to identify intact natural landscape blocks or areas of ecological integrity.

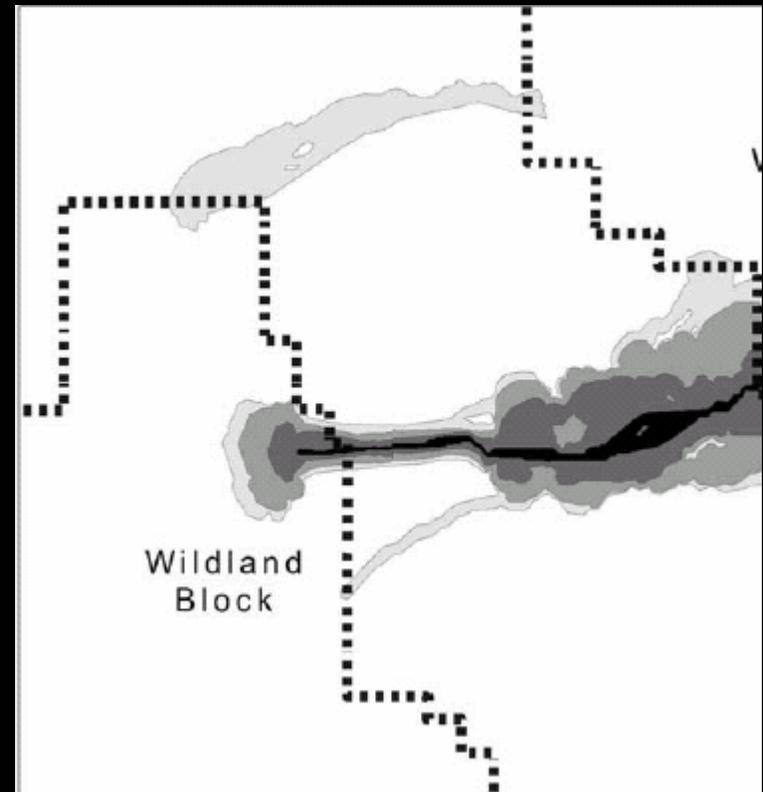
The minimum size landscape block for the statewide analysis is 6,000 acres.



Progress to Date

Linkages have been identified between blocks and are now being modeled.

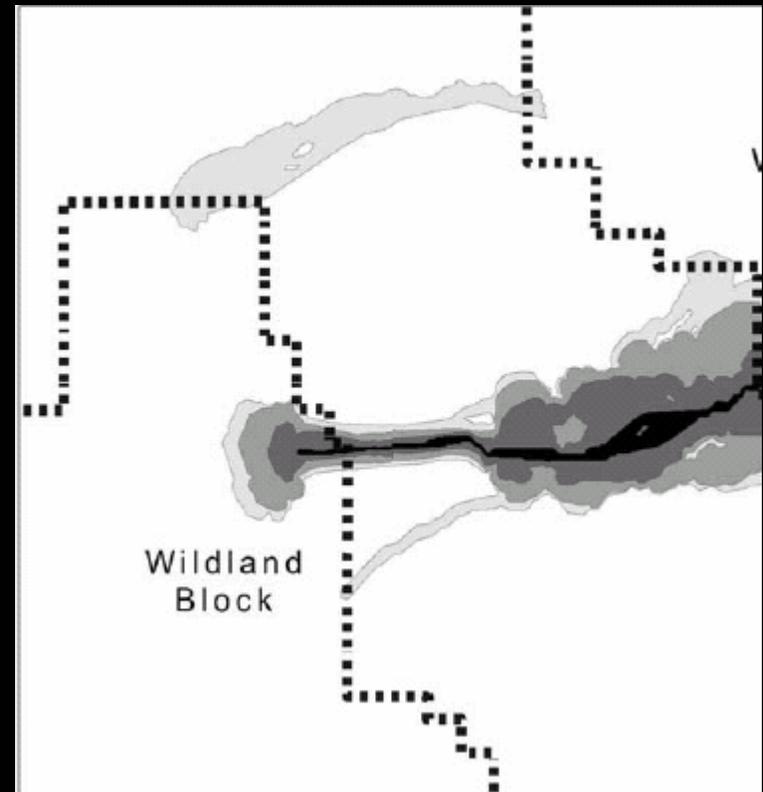
Between 150 and 200 linkages will be modeled statewide.



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Plans for Further Analysis

- Compare the results with existing conservation priority maps such as Areas of Conservation Emphasis (ACE) II and analyses done by The Nature Conservancy (TNC).
- Validate the modeled blocks and linkages with data on key focal species.
- Resources permitting, run the same analysis for each ecoregion of California to identify and connect smaller landscape blocks.

Uses for the Statewide Map in Climate Change Adaptation Planning

- Identify remaining blocks of intact habitat that are large enough to represent a range of environmental gradients and model linkages between them.
- Use the resulting data to guide statewide conservation planning (i.e. prioritize areas for acquisition, easement, or conservation and mitigation banks).
- Use the resulting data to highlight connectivity needs between existing conservation plans (NCCPs, HCPs). Connecting existing reserve systems is a key action identified in the 2009 California Climate Adaptation Strategy.

California Essential Habitat Connectivity Project

http://www.dot.ca.gov/hq/env/bio/program_efforts.htm