

Science on the Landscape for California and the Pacific West

The Western Ecological Research Center (WERC)

WERC is an Ecosystems mission science center of the U.S. Geological Survey serving California, Nevada, and the greater Pacific West—the most ecologically diverse geographic region in the United States.

Our Mission: To conduct peer-reviewed research and to create innovative tools that help natural resource managers address the challenges to ecosystem function and ecosystem services in our changing world.



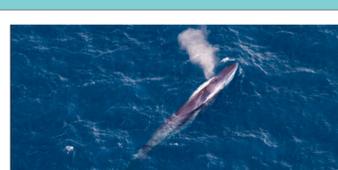
Genetic Landscapes

Combining GIS mapping and population genetics, WERC research can help land managers outline gene-flow corridors and priority areas for conservation.
<http://www.werc.usgs.gov/vandergast>



Wildfire Risk to Communities

Can Southern California learn to live with fire? WERC fire ecology research is providing tools to help communities manage wildfire risk and biodiversity.
<http://www.werc.usgs.gov/socalfirerisk>



Ocean Energy Planning

WERC surveys are identifying mega-fauna hotspots, seabird movements, and help forest dynamics to inform BOEM programs from Hawaii to California.
<http://www.werc.usgs.gov/marine>



Endangered Species Monitoring

WERC tracks the status and trends of listed species for USFWS and partners.
<http://www.werc.usgs.gov/halstead>
<http://www.werc.usgs.gov/kus>
<http://www.werc.usgs.gov/sfbc>



Amphibian Decline Research

Part of the National Amphibian Research and Monitoring (ARMI) program from the start, WERC studies the disease and habitat impacts facing this ancient taxon.
<http://armi.usgs.gov>



Invasive Species Biosecurity

WERC research is helping communities in the U.S. and abroad control invasions of alien species and minimizing their spread and impact to sensitive habitats.
<http://www.werc.usgs.gov/invasives>



Sea Level Rise and Coastlines

Coastal managers need science-based tools to plan for climate change. WERC is leading a partnership to offer forecasts for wetlands along the U.S. West Coast.
<http://www.werc.usgs.gov/SFBaySLR>

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**Center Director *Researcher Emeritus



Forests, Climate, and Droughts

How will forests respond to rising global temperatures? Research on forests trends across the western U.S. hint at mortality causes and management solutions.
<http://www.werc.usgs.gov/vanmantgem>



Water, Wetlands, and Waterfowl

Central Valley water demands are driven by farms, faucets, fuels, fish, and fowl. Are there ways to ensure the water and habitat needs of migrating waterfowl?
<http://www.werc.usgs.gov/fleskes>



Greater Sage-Grouse in Nevada

Habitat, telemetry, and nest surveys are being compiled into maps to help public and private stakeholders chart a future for energy, land use, and conservation.
<http://www.werc.usgs.gov/sagegrouse>

Redwood Field Station

Davis Field Station

Dixon Field Station

Point Reyes Field Station

San Francisco Bay Estuary Field Station

Yosemite Field Station

Santa Cruz Field Station

Sequoia and Kings Canyon Field Station

Las Vegas Field Station

Channel Islands Field Station

Santa Monica Mountains Field Station

Box Springs Field Station

San Diego Field Station



California Coastal Health

Working with partners statewide, WERC studies the environmental stressors that hinder sea otter population recovery and nearshore ecosystem health.
<http://www.werc.usgs.gov/seaottercount>



Salt Pond Restoration Project

WERC studies on mercury toxicity and marsh ecology are guiding restoration of tidal wetlands that provide flood control and ecosystem services to Silicon Valley.
<http://on.doi.gov/southbayrestoration>



Channel Islands Ecology

Together with Channel Islands National Park, WERC monitors rare and endemic plants and seeks to understand how fog-driven coastal ecosystems function.
<http://www.werc.usgs.gov/mceachern>



Human Barriers to Wildlife

How do species cope with fragmented habitat, human activities, and wildfires? WERC advises local resource planners.
<http://www.werc.usgs.gov/sandiego>
<http://www.werc.usgs.gov/samo>



Research for National Parks

WERC studies vegetation and alpine wildlife, advising parks on long-term forest monitoring, fire science, and more.
<http://www.werc.usgs.gov/yosemite>
<http://www.werc.usgs.gov/seki>



Energy and the Mojave Desert

From tortoises to Joshua trees, WERC surveys and models are guiding land-use and conservation planning in the desert.
<http://www.werc.usgs.gov/boxsprings>
<http://www.werc.usgs.gov/lasvegas>

