

Research Support for National Parks

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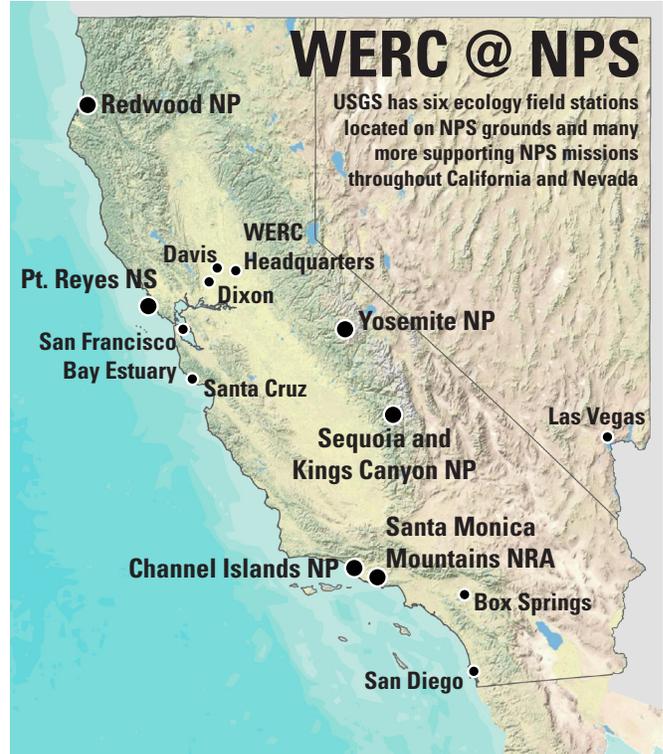
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The **Western Ecological Research Center (WERC)** is a USGS science center serving California, Nevada and the greater Pacific Southwest — the most ecologically diverse geographic region in the U.S. and home to some of America’s most iconic national parks.

WERC has a strong and productive history of collaborating with the **National Park Service (NPS)**, with six of our 13 field stations co-located within national parks and the remaining seven field stations also currently serving NPS research needs. Our efforts are part of the greater USGS mission to provide sound scientific information to federal, state and local agencies, including the Fish and Wildlife Service, USDA Forest Service, Bureau of Land Management and Department of Defense.

Much of our diverse portfolio of projects and expertise has cross-cutting applications for parks issues, and greatly enriches our ability to support the NPS mission. We invite collaborations with park managers, academia, area partners and organizations, and seek to understand the needs and interactions of our resource stewards and public users and their ecosystems.



WERC Research Highlights:

- Research for the Western Mountain Initiative (WMI) assessing climate change impacts to western mountain forests. (SEKI Field Station, Redwood Field Station)
- Assessing ecological and hydrological recovery after removal of non-native ungulates from parts of Channel Islands NP. (CHIS Field Station, Yosemite Field Station)
- Using national parks as laboratories to assess and understand amphibian declines in California. (Pt. Reyes Field Station, San Diego Field Station, ARMI Program)
- Determining fire and drought-related animal damage to Joshua Tree NP Joshua trees. (Las Vegas Field Station)
- Evaluating fire history/behavior/effects and post-fire management strategies for Mojave parks. (Yosemite)
- Wildfire treatment/fire regime studies in Sierra Nevada forests and California chaparral. (SEKI Field Station)
- Working with Santa Monica Mountains NRA staff to uncover genetic evidence of habitat and population fragmentation. (San Diego Field Station)
- Collaboration with Santa Monica Mountains NRA on urban bobcat and coyote research. (SAMO Field Station)
- Acoustic sampling to determine bat assemblages and trends at Point Reyes National Seashore. (Pt. Reyes)
- Measuring avian breeding trends in Golden Gate NRA and toxic metals in Whiskeytown NRA. (Dixon)
- Assessing methods to protect and restore salmon stream habitat in Redwood NP. (Redwood Field Station)
- Modeling and measuring desert tortoise condition, disease, movement and habitat to assist land managers in the Mojave Desert. (Las Vegas Field Station)
- Developing early detection and control strategies for invasive plants in desert and mountain parks. (Yosemite)

WERC Lead Scientists at National Parks

Channel Islands Field Station

<http://www.werc.usgs.gov/channelislands>

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Point Reyes Field Station

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Redwood Field Station

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Yosemite Field Station

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Other WERC Field Stations

Box Springs Field Station <http://www.werc.usgs.gov/boxsprings>

Davis Field Station <http://www.werc.usgs.gov/davis>

Dixon Field Station <http://www.werc.usgs.gov/dixon>

Las Vegas Field Station <http://www.werc.usgs.gov/lasvegas>

San Diego Field Station <http://www.werc.usgs.gov/sandiego>

SF Bay Estuary Field Station <http://www.werc.usgs.gov/sfbe>

Santa Cruz Field Station <http://www.werc.usgs.gov/santacruz>

WERC Collaborative Initiatives

U.S. Amphibian Research and Monitoring Initiative (ARMI)

<http://armi.usgs.gov>

Bay Area Ecosystems Climate Change Consortium (BAECCC)

<http://www.baeccc.org>

California Landscape Conservation Cooperative (CA LCC)

<http://www.californiaLCC.org>

South Bay Salt Ponds Restoration Project

<http://www.southbayrestoration.org>

Western Mountain Initiative

<http://westernmountains.org>

WERC Research Highlights (Cont'd):

- Invasives control methods in Saguaro NP. (Las Vegas)
- Herpetological/mammalian monitoring of Irvine Ranch National Natural Landmark. (San Diego Field Station)
- Helping Sierra Nevada parks develop a monitoring and conservation strategy for the Yosemite toad. (Yosemite)
- Genetic variability of translocated desert bighorn sheep in Nevada. (Las Vegas Field Station)
- Conducting vegetation inventory, distribution modeling, and mapping in Sierra Nevada parks. (Yosemite)
- Baseline avian and marsh surveys in Point Reyes National Seashore. (SF Bay Estuary Field Station)
- Recommending options for national parks and reserves for adapting to climate change. (SEKI Field Station)
- Evaluating fire effects on vegetation, wildlife and carbon stocks in Sierra Nevada parks. (Yosemite)
- Modeling climate change impacts on meadow hydrology and alpine vegetation/mammal interactions in Sierra Nevada parks. (Yosemite Field Station)
- Synthesizing climate and stream flow monitoring data for Klamath, SF park networks. (Redwood Field Station)
- Hosting workshop for NPS staff and the public on Joshua tree ecology. (Las Vegas Field Station)

Resources for Park Managers

WERC PUBLICATION BRIEFS

Academic findings published by WERC scientists delivered as concise, one-page briefings with management implications, written especially for resource managers. Full list online:

<http://www.werc.usgs.gov/PublicationBriefs.aspx>

WERC EVENTS LISTING

Interact directly with WERC scientists at upcoming workshops and conferences. Search calendar online:

<http://www.werc.usgs.gov/Events.aspx>

WERC RESOURCE MANAGERS PORTAL

Search for national parks topics in our Products Database, or learn more about WERC researchers and stations. Online at:

<http://www.werc.usgs.gov/OutreachForResourceManagers.aspx>

FOR MORE INFORMATION, CONTACT:

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To propose collaborations, projects and workshop invitations, or to inquire about specific research findings and products, please feel free to contact the lead scientist or field station directly.