

Linking Science and Resource Management for Biodiversity and Open Space Conservation



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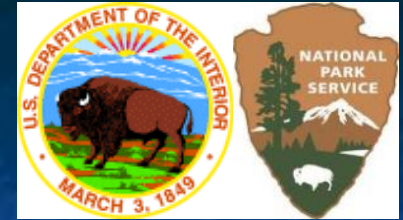
My Presentation

- The Link between Science and Natural Resource Management
- U.S National Parks and Mediterranean Ecosystem Conservation near Cities
- Science Needs for Resource Management



Resource Management and
the Role of Science:
Perspectives from the
U.S. National Park Service

U.S. National Park System



Nearly 400 NPS Managed Units

Types of Designations:

- National Parks
- National Monuments
- National Recreation Areas
- National Historic Sites
- National Reserves
- National Preserves
- National Trails
- and National Natural Landmarks

National Park Service Mission



1916 Law Establishing NPS:
“To conserve the scenery and the
natural and historic objects and the
wild life therein...in such manner...
as will leave them *unimpaired*...
for *future generations*.”

Parks Need Science

- Resource management decisions and actions depend on the best available science
- Resource information and management consequences are always uncertain
- Natural ecosystems are dynamic and changing



Parks Seek Science

- Legislative requirements to use the best available science
- Renewed agency commitment to support science and scientists
- Parks for science, science for parks
- Building relationships

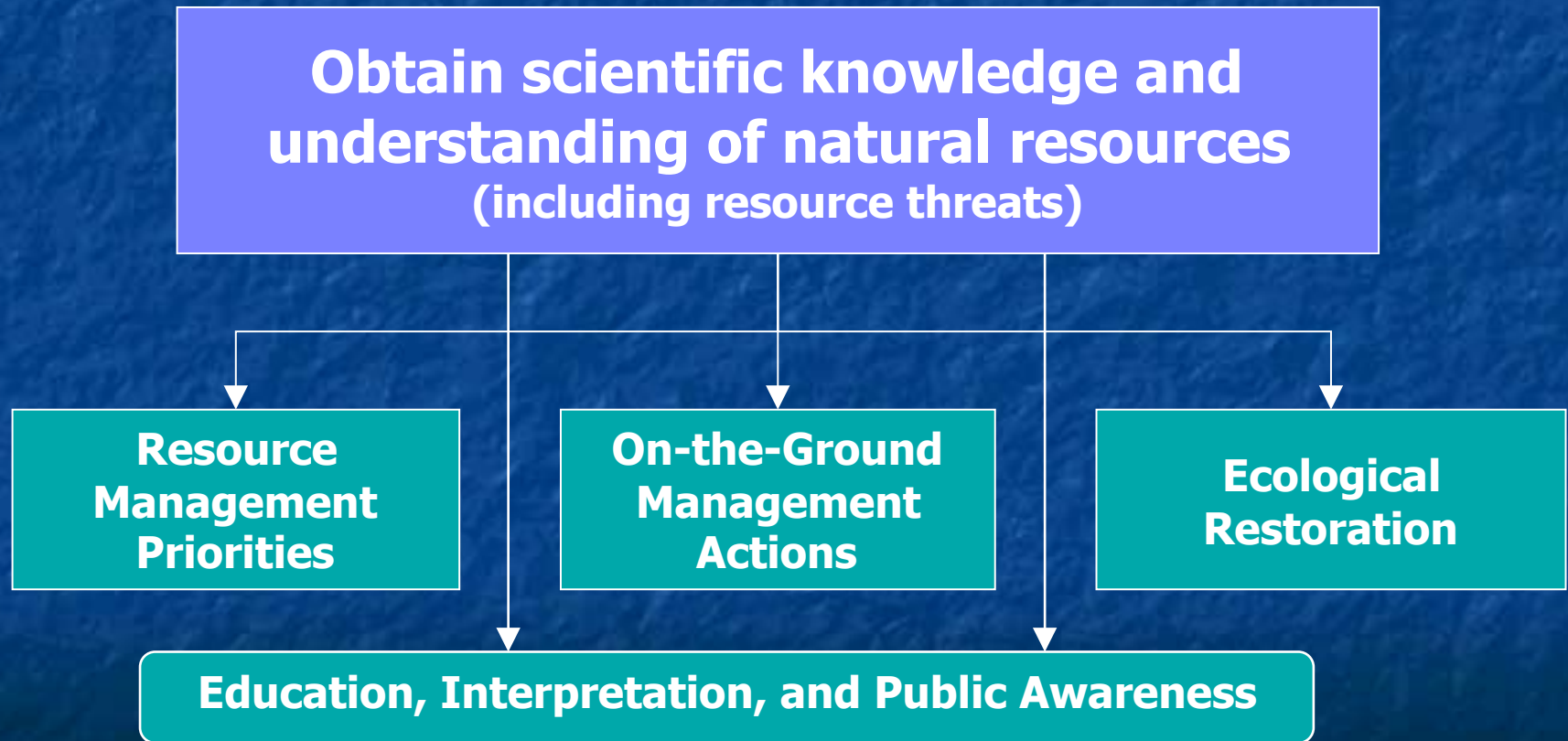


UCLA La Kretz Center for California Conservation Science

But for parks (and cities), science is only part of the puzzle...

- Park-specific laws and open space purposes/needs
- Site-specific management goals and policies
- Environmental Laws
 - Endangered Species Act
 - National Historic Preservation Act
 - And many more...

Science should *inform* and *guide* natural resource management



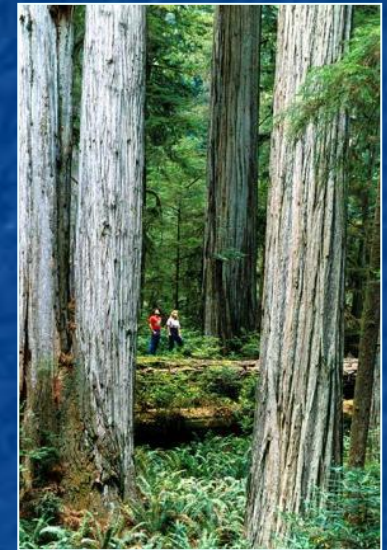
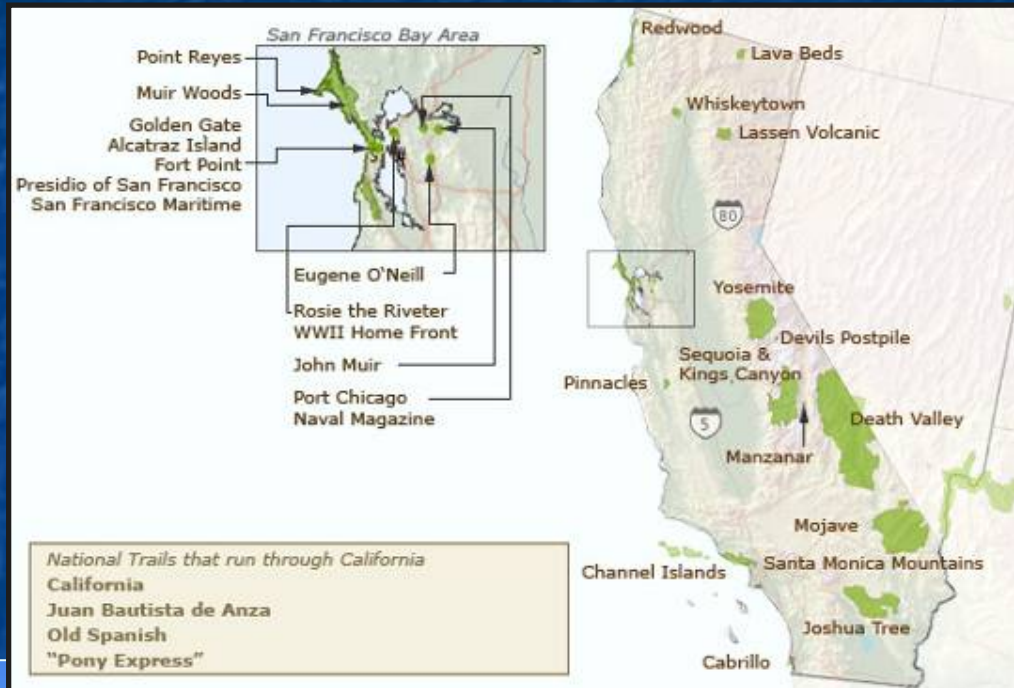
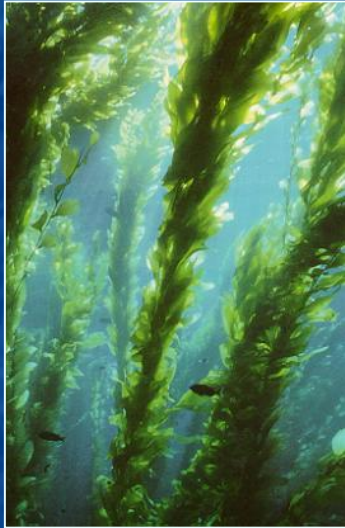
Applying science on-the-ground

- Resource management actions must be informed by science, consistent with law and policy, while subject to public (and sometimes political) input and scrutiny



U.S. National Park System
and Mediterranean Ecosystem
Conservation near Cities

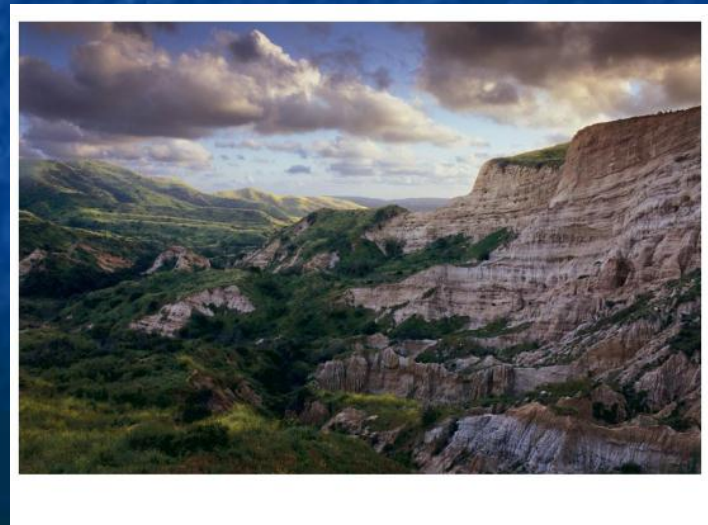
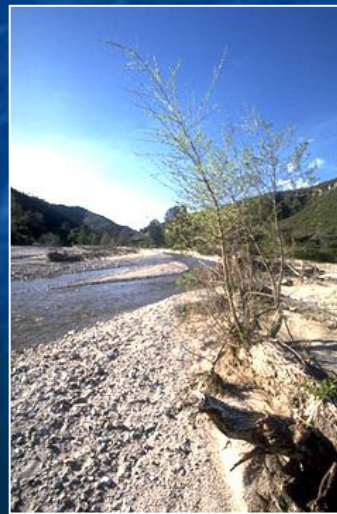
NPS Units in California



Mediterranean Ecosystem National Park Units

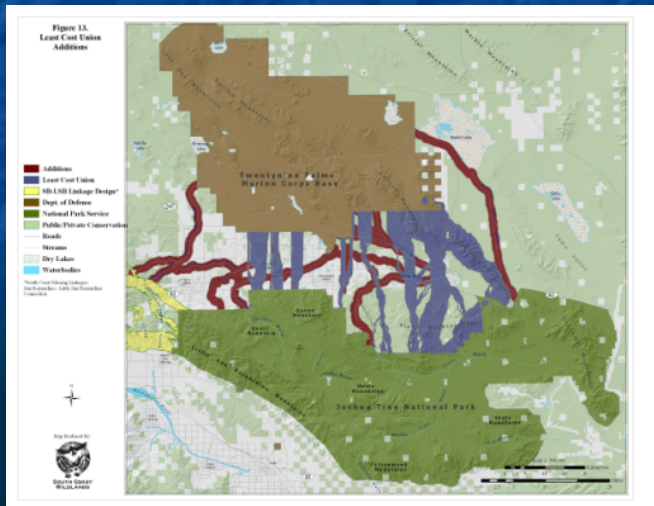
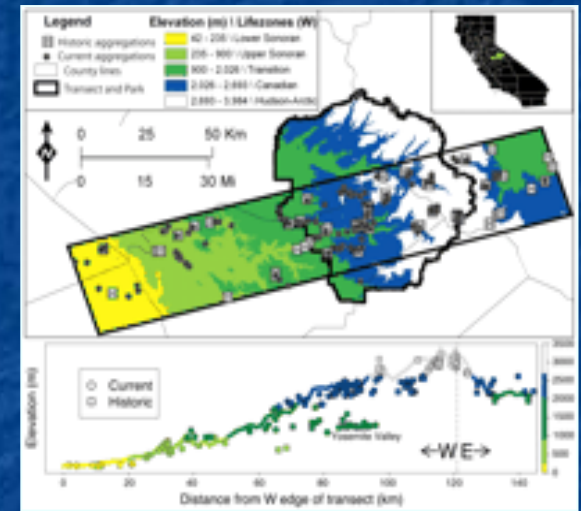
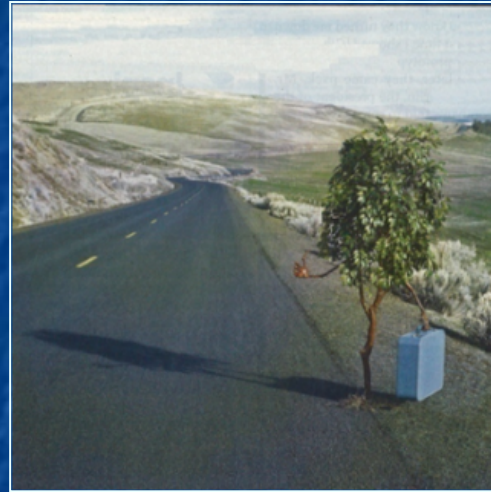


Mediterranean Ecosystem National Park Units



Science Needs for Resource
Management and Conservation
near Mediterranean Cities

Science/Research Priority: Climate Change

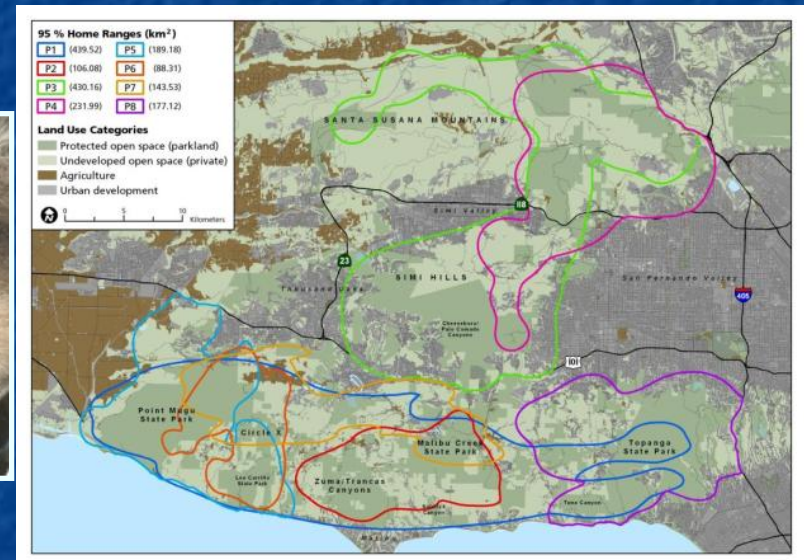


NPS Climate Change Strategy



- **Adaptation** = identify and implement strategies that promote resilience, and enhance restoration, conservation, and preservation of park resources.
- Incorporate climate change into all levels of park planning and activities.

Science/Research Priority: Land Use Change and Habitat Fragmentation



Science/Research Priority: Non-native Invasive Species



Science/Research Priority: Fire Ecology and Management



Science/Research Priority: Ecological Restoration



Science/Research Priority: Balancing Resource Conservation with Recreational Use and Access



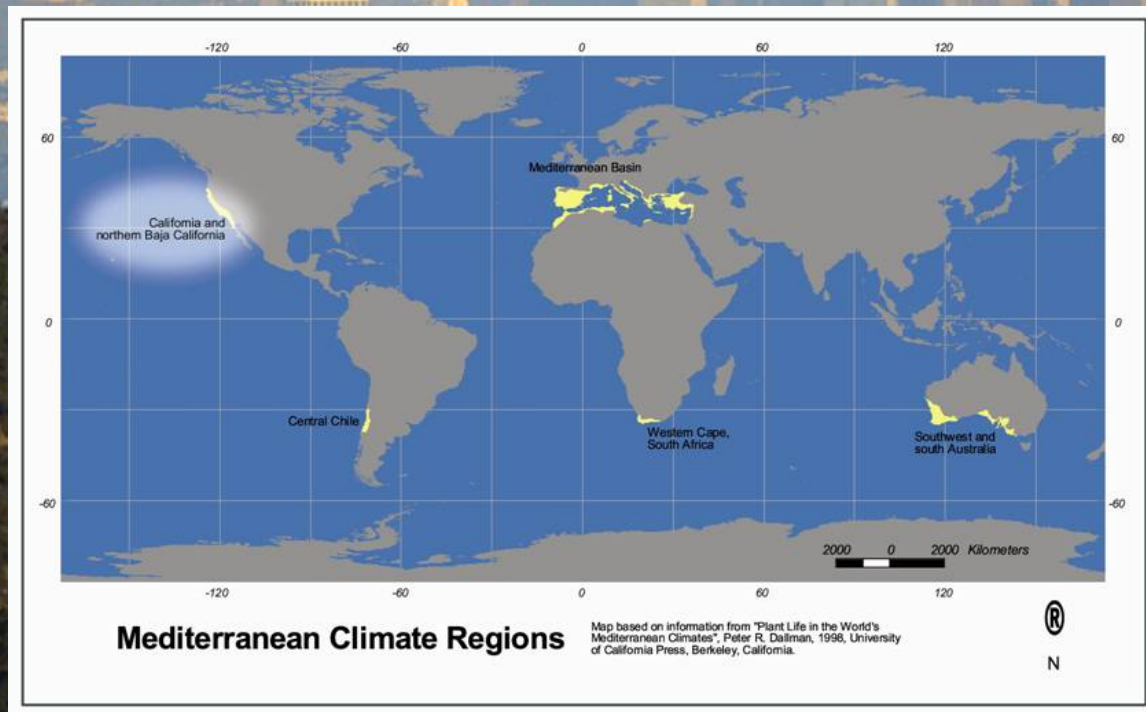
Science/Research Priority: Understanding and Conserving Rare and Sensitive Species



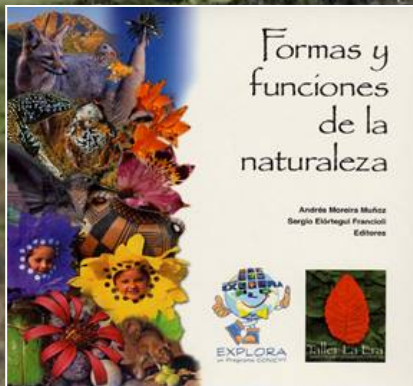
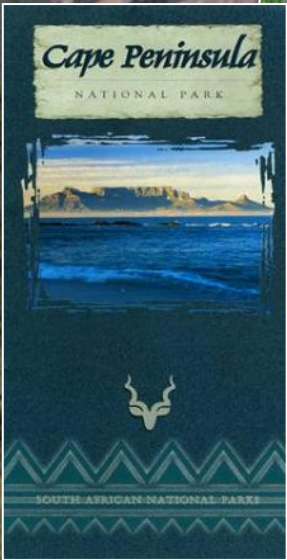
Science/Research Priority: Measuring and Monitoring Resource Status and Trends



Familiar challenges for natural ecosystems near all Mediterranean cities ...



...but cities also provide opportunity



The future of Mediterranean-type ecosystems depends on linking science to resource management, and connecting to cities

