#### Research Learning Centers: Focus on Education

















- "...to promote and regulate the use of the...national parks...which purpose is to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations."
- National Park Service Organic Act, 16 U.S.C.1.







EXPERIENCE YOUR AMERICA



# Take care of this treasure!













EXPERIENCE YOUR AMERICA

The Natural Resources Challenge is a National Park Service initiative focusing energy, commitment, and resources on the NPS mission to preserve and protect our natural heritage for the American people.





# Natural Resources Challenge Funded Programs

#### **Inventory and Monitoring Networks**



Vital Signs Monitoring Networks National Park Service Inventory & Monitoring Program



•Vegetation Maps

•Geology

- •Vascular Plants
- •Vertebrates
- •Air Quality
- •Water Resources





# Natural Resources Challenge Funded Programs



Pacific

Hawaii – Pacific Island

Federal land management, environmental, and research agencies, along with the nation's universities, share several science-based goals in the 21st century:

- •high-quality science
- •usable knowledge for resource managers,
- •responsive technical assistance,
- •continuing education, and
- cost-effective research programs.



Gulf Coast

Desert

Southwest



EXPERIENCE YOUR AMERICA

Piedmont - South

South Florida -

Atlantic Coast

## Natural Resources Challenge Funded Programs



## Research Learning Centers







- Active, scientifically sound management of parks
- Involvement of the research community in providing scientific information and in using parks as scientific laboratories
- Engaging the public as partners in resource preservation through education









EXPERIENCE YOUR AMERICA

Provide visiting researchers with laboratories, offices, and dormitory space for use during their stay in the parks.









## **Research Learning Centers Educational Programs**

Field Seminars

Newsletters, Articles, Websites Teacher Workshops Employee training events Researcher brown-bags lunches Development of educational curriculum and distance learning programs



NATIONAL PARK SERVICE



## **Ozone Effects Research**

The science

- International team meets yearly
- 13 peer-reviewed publications, 6 in preparation
- 7 Graduate students











#### **Ozone Effects Education**

Ozone bio-monitoring gardens





EXPERIENCE





Slime Mold Inventory part of a \$2 million NSF Grant for a planetary biodiversity inventory



### Education

- EPA Grant
  - Slime Mold Training for Park Partners
- Students are Good at finding Fruiting Bodies
- Lessons in Cellular Development

   Can Culture Samples
- Hands on the Land





## **Murie Science and Learning Center**



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### Digital Storytelling Camp

# **Center for Urban Ecology**

#### Natural Resources Non-fiction Creative Writing and Web Design Fellowships









# **Center for Urban Ecology**

University students designed new NPS publication, <u>Values</u> and <u>Challenges in Urban</u> <u>Ecology</u>.

- Semester 1:
- •Learn about design
- •Produce a design concept
- •Present design proposal

Semester 2: Layout the publication and prepare it for production.





NATIONAL PARK SRVICE

Oak Savanna Restoration Research

- •Research Demonstration Plot
- •Teachers Workshop & Student Activities
- •Interpretive Signage















EXPERIENCE YOUR AMERICA



Great Lakes Educator Workshops





EXPERIENCE YOUR AMERICA



Great Lakes Educator Workshops







#### Science: The Next Generation