Alliances for Science

NPS Inventory & Monitoring Networks
Research Learning Centers
Cooperative Ecosystem Studies Units

Map Viewing Tips

For best viewing results, the following strategies are suggested.

Focus on a theme.
First, examine the legend and choose a single theme. Then move your eye across the map to locate the features for that theme. Once oriented in this way, allow other map features to come into focus.

Focus on a geographic area.
First orient your eye to a specific I&M network, state, NPS region, CESU boundary. Then explore the map features within that area.

Focus on the text type.
Use your eye to pick out just one of the distinctive text labels. Then focus on the same type of text throughout the map. For example, to see NPS units not currently associated with a Research Learning Center, focus on the plain white text.

- Cooperative Ecosystem Studies Unit (CESU) Host Institution
- Faint gray line represents CESU boundary
- NPS units currently served by NPS Learning Centers (Funding from NPS Natural Resource Challenge)
- NPS units currently served by NPS Learning Centers (Funding from other sources)
- NPS units currently PROPOSED for an NPS Learning Center
- NPS units NOT currently served by NPS Learning Centers
- NPS Inventory & Monitoring Networks (shaded individually)

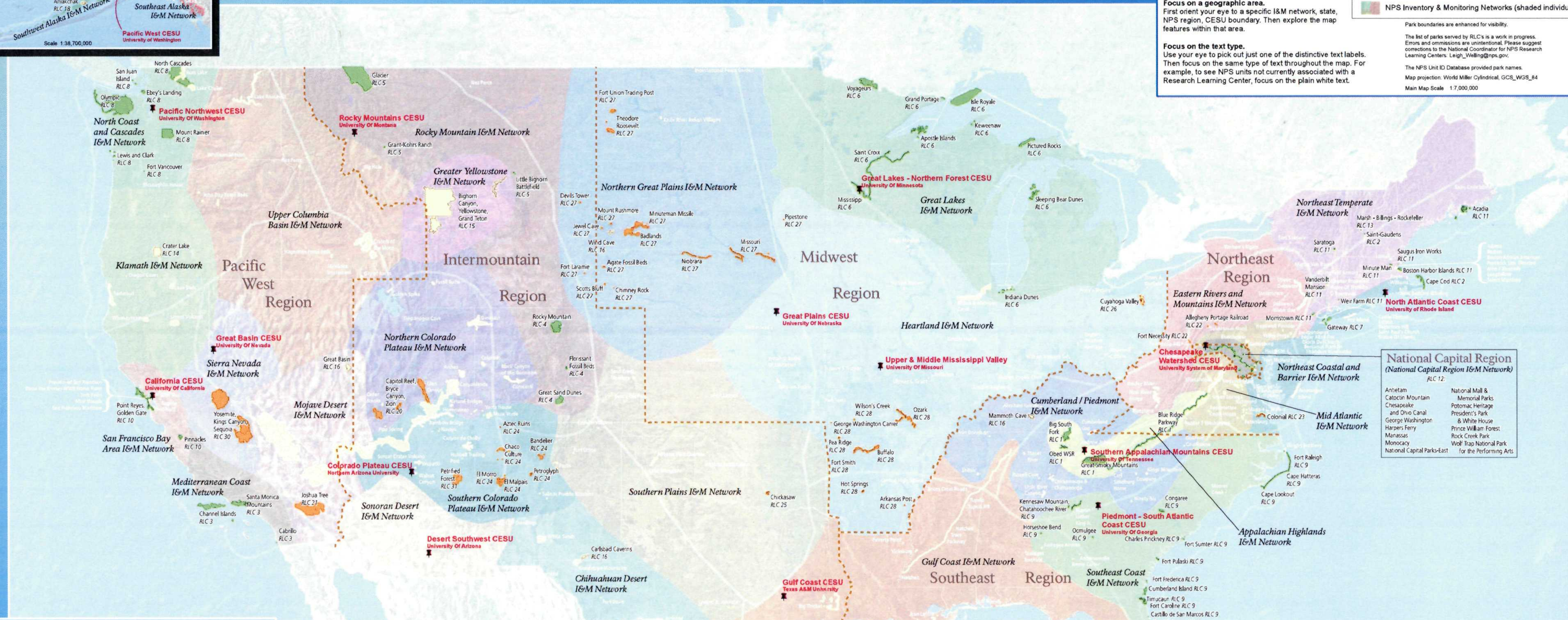
Park boundaries are enhanced for visibility.

The list of parks served by RLC's is a work in progress. Errors and ommissions are unintentional. Please suggest corrections to the National Coordinator for NPS Research Learning Centers. Leigh_Welling@nps.gov.

The NPS Unit ID Database provided park names.

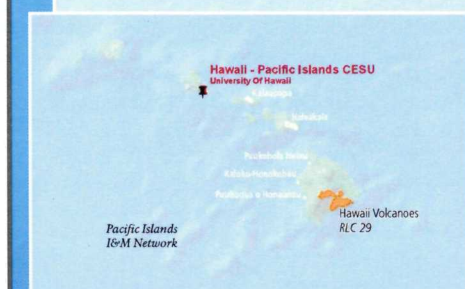
Map projection: World Miller Cylindrical, GCS_WGS_84

Main Map Scale 1:7,000,000



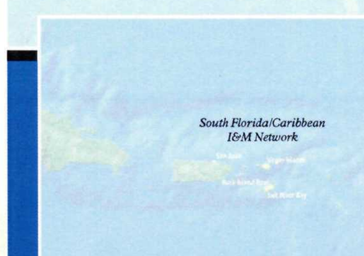
National Capital Region
(National Capital Region I&M Network)
RLC 12:

- Antietam
- Catoctin Mountain
- Chesapeake and Ohio Canal
- George Washington
- Harpers Ferry
- Manassas
- Monocacy
- National Capital Parks-East
- National Mall & Memorial Parks
- Potomac Heritage
- President's Park & White House
- Prince William Forest
- Rock Creek Park
- Wolf Trap National Park for the Performing Arts



NPS units AMME, NPSA, and WAPA are not mapped here and are not currently served by a learning center.

Scale 1:5,000,000



Scale 1:7,000,000

Introduction

Some innovative collaborations are emerging as programs established under the Natural Resource Challenge (NRC) seek the most efficient and effective mechanisms for increasing science-informed resource management in the NPS.

Benefits of these collaborations include increased data for decision-making; reduced costs through leveraged funds; shared expertise and resources; enhanced communication with park managers; and better science information products for public audiences.

This poster is a follow-up to the Collaboration across the Challenge workshop held at the 2005 GWS meeting in Philadelphia. The map highlights existing relationships among three NRC programs (Research Learning Centers [RLCs], Inventory and Monitoring Networks [I&M], and Cooperative Ecosystem Studies Units [CESUs]) and to facilitate identification/discussion of future opportunities.

The following examples showcase existing collaborative projects between Natural Resource Challenge programs that serve to facilitate and communicate science and research in national parks.

Planning and Implementing Science and Research

Acquiring new knowledge about park resources and ecosystems is critical for making informed management decisions. To help accomplish this, parks must proactively plan and implement science and research strategies. Collaborative efforts to support parks in this process include research needs lists and catalogues, development of park research management operational guidelines, and small grant programs that encourage park-based research, provide student opportunities, and help to meet high priority resource management needs.

Identifying Research Needs in Acadia National Park:

In 2006-2007 the Rocky Mountains CESU worked with the Schoodic Education and Research Center (SERC) to develop a Research Opportunities Catalog for Acadia National Park. The process included a series of workshops with park managers and scientists to identify research priorities. The Catalog will be available in fall 2007 as an access database and is coordinated with the prototype Watershed Condition Assessment underway at the park. The Catalog will be used by the park, SERC, and the research community to address research priorities for Acadia and coastal Maine.

Monitoring atmospheric stressors in high altitudes helps Acadia National Park assess watershed conditions and contributes to an overall understanding park health.

Tehabi Interns Meet Park Needs and Gain Practical Experience:

Natural Resource Chief at GRKO, Ben Bobowski, orients Tehabi undergraduate interns for the summer 2006 field season.

For the past five years the Rocky Mountains CESU has worked with the Utah State University, Tehabi Student Internship Program, to cultivate student opportunities across parks, I&M networks and RLCs in the Intermountain Region. As part of the program students receive training from park, CESU and I&M staff at a field camp located at Grant-Kohrs Ranch NHS and are then assigned to a "mentored" work experience in parks and networks throughout the Intermountain Region.

Science Communication

Effective science communicationraises awareness of resources issues,helps identify and articulate appropriate management concerns and research questions, and encourags participation in resource stewardship. Collaborative effortsinclude shared support and sponsorship of research seminars, joint workshops on current and complex issues, and coordination across a range of communication products for internal and external audiences.

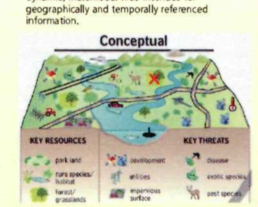
Communicating Science in the San Francisco Bay AreaParks:

Scientific information is currently generated through a variety of sources in the San Francisco Bay Area. To coordinate the dissemination of this information to a variety of audiences, the San Francisco Bay Inventory & Monitoring Network (SFAN), Pacific Coast Science and Learning Center, Natural Resource Information Division, and Golden Gate National Park Associationcollaborate on a comprehensive communication strategy. The strategy will identify and conceptualize key messages from scientific andresource protection endeavors, enhance communication among SFAN parks, assist transfer ofresearch questions and critical information among scientists,and enhance outreach to non-science audiences.

Workshop attendees collaborateto develop a comprehensive Science Communication Strategy for the San Francisco Bay Areaparks

Reporting Ecological Conditions in the National Capitol Region:

The National Capital Region Network (NCRN), Urban Ecology Research Learning Alliance (UERLA), and Integration and Application Network of the University of Maryland Center for Environmental Studies developed an integrated ecological and visual framework to communicate data and information aboutvital signs monitoring and natural resource issues The framework will serve a broad community of scientists, managers and stakeholdersusing a dynamic, multimodal web interface for geographically and temporally referenced information.



The data navigation framework for National Capitol Region parks presnts information geographically (place-based), conceptually (themebased), and as a hierarchical series of general to specific indicators. Report cards are then generated to rank park environmental condition.

[redacted]

Map current - April 2007

Production Credits

Text, images, and RLC information - Leigh Welling, NPS

Text, images, and CESU information - Angie Evenden, NPS

Map production and poster layout - Rob Daley NPS

Contributors
Christine K. Lockert, Lee Howard - University of Nebraska
Billie Thomas - NPS DLAC

Keep Moving Forward

It is hoped that the information and examples presented here will foster further dialogue and innovation resulting in new collaborations to address natural resource science needs within the National Park Service.

Centers Funded by the Natural Resource Challenge

1. Appalachian Highlands Science Learning Center
2. Atlantic Research Center
3. California Mediterranean Research Learning Center
4. Continental Divide Research Learning Center
5. Crown of the Continent Research Learning Center
6. Great Lakes Research & Education Center
7. Jamaica Bay Institute
8. North Coast and Cascades Research Learning Network
9. Old-Growth Bottomland Forest Research and Education Center
10. Pacific Coast Science and Learning Center
11. Schoodic Education and Research Center
12. Urban Ecology Research Learning Alliance

Other Active Research Learning Centers

13. Center for Place-based Learning and Innovation
14. Crater Lake Science and Learning Center
15. Greater YellowstoneScience Learning Center
16. Mammoth Cave International Center for Science and Learning
17. Murie Science and Learning Center
18. Ocean Alaska Science and Learning Center

Proposed Research Learning Centers

19. South Florida / Caribbean Research Learning Center
20. Canyon Country Research Learning Center
21. Desert Science and Heritage Center
22. Eastern Rivers and Mountains
23. Jamestown Center: Early American Site Network
24. Jemez Mountains Research Learning Center
25. Leopur House Research Learning Center
26. Midwest Center for Environmental and Cultural Research
27. Northern Great Plains Research Learning Center
28. Ozark Highlands Research Learning Center
29. Pacific Islands
30. Sierra Nevada Science Learning Network
31. Southern Colorado Plateau