

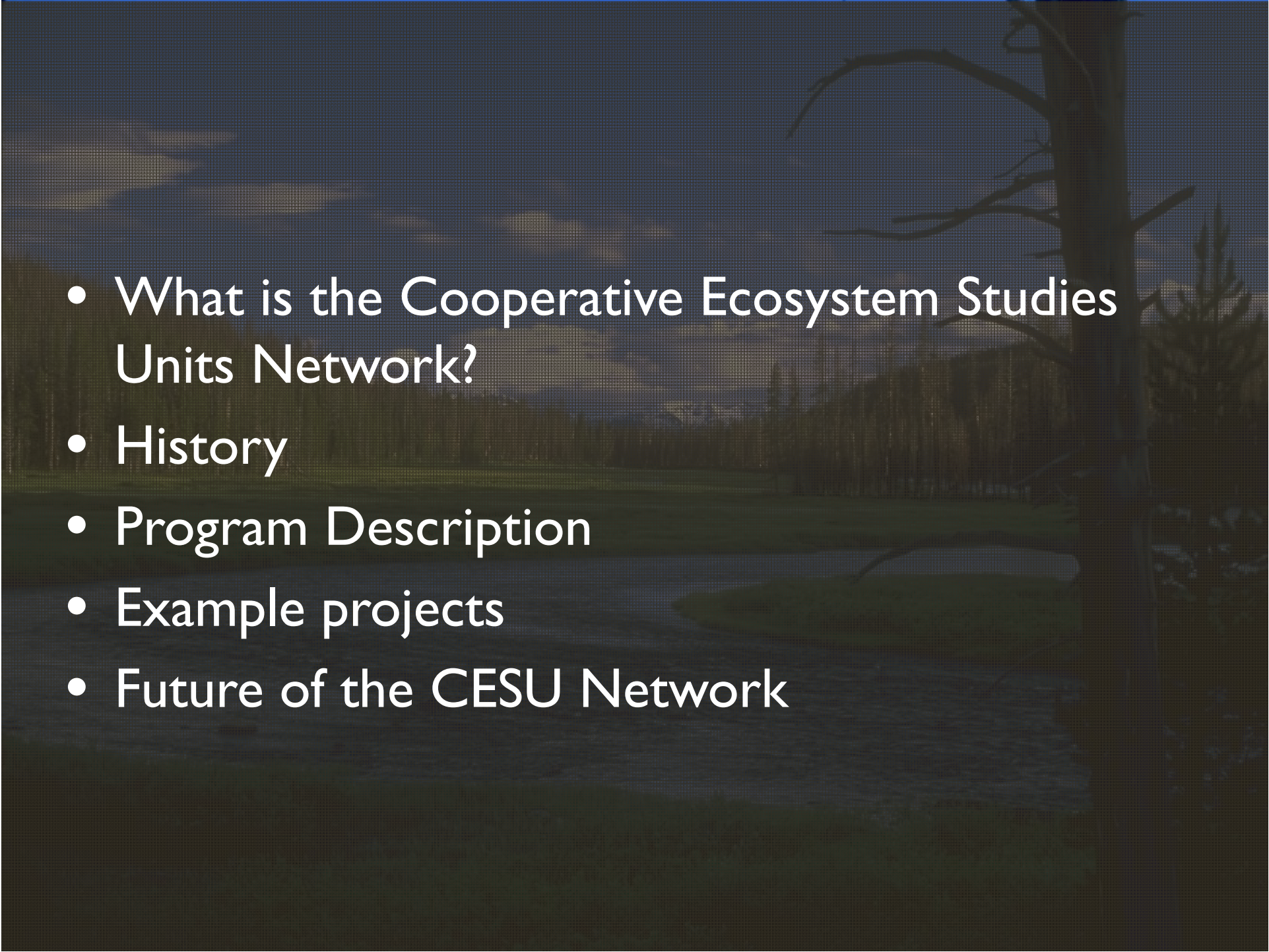
Cooperative Ecosystem Studies Units



Thomas E. Fish, National Coordinator

cesu.org

WEAVING PARTNERSHIPS | BUILDING KNOWLEDGE | SUSTAINING HERITAGE

- 
- What is the Cooperative Ecosystem Studies Units Network?
 - History
 - Program Description
 - Example projects
 - Future of the CESU Network



What is the CESU Network?

A nationwide consortium of federal agencies, universities, conservation organizations, and other partners working together to support agency missions and informed public trust resource stewardship



What is the CESU Network?

- **A**nthropology to **Z**oology
- coordinated, collaborative, applied
- natural and cultural resource issues
- multiple scales
- ecosystem context



State of the Network

2 tribes

15 federal agencies

272 universities (58 minority serving institutions)

90 state, tribal, and non-governmental

379 total partners (as of January 2016)

Since 1999, ~12,000 projects over \$1 billion (estimated figures)



Bureau of Land Management



U.S. Fish and Wildlife Service



U.S. Geological Survey



National Park Service



Bureau of Reclamation



Bureau of Ocean Energy Management



Bureau of Indian Affairs



Natural Resources Conservation Service



U.S. Forest Service



Agricultural Research Service



Farm Service Agency



National Oceanic and Atmospheric Administration



National Aeronautics and Space Administration



U.S. Army Corps of Engineers



Department of Defense (Installations & Environment)





CESU Network Objectives

- to provide timely scientific research, technical assistance, and education services to develop usable knowledge supporting public trust resource stewardship aligned with agency and partner missions;
- to create and maintain effective collaborative partnerships among federal and state agencies, universities, and other nonfederal partners to share resources and expertise;
- to promote/maintain high standards for scientific research, technical assistance, and educational activities and associated project outputs;
- to encourage professional development of federal scientists, technical staff, and managers through substantial involvement in projects;
- to help prepare future conservation professionals through direct involvement with real-life conservation issues and problem solving.

WEAVING PARTNERSHIPS | BUILDING KNOWLEDGE | SUSTAINING HERITAGE



1999

- Rocky Mountains – University of Montana
- Colorado Plateau – Northern Arizona University
- North Atlantic Coast – University of Rhode Island
- Southern Appalachian Mountains – University of Tennessee




1999


2000

- Desert Southwest – University of Arizona
- Pacific Northwest – University of Washington
- South Florida-Caribbean – University of Miami
- Great Plains – University of Nebraska, Lincoln



1999

2000

2001

- Chesapeake Watershed – University of Maryland
- Great Basin – University of Nevada, Reno



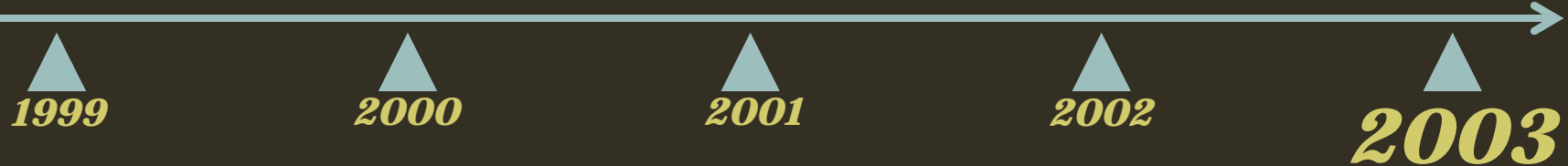
1999

2000

2001

2002

- Great Lakes - Northern Forest – University of Minnesota
- Gulf Coast – Texas A&M University



- North & West Alaska – University of Alaska
- Piedmont - South Atlantic Coast – University of Georgia
- Upper and Middle Mississippi Valley (now Great Rivers) – University of Missouri
- Californian – University of California, Berkeley
- Hawaii - Pacific Islands – University of Hawaii



CESU Cooperative Ecosystem Studies Units Network





Program Description

- established renewable Cooperative/Joint Venture Agreements with 5 year duration
- agreements renewed based on mutual consent, self-assessment, federal agency assessment, and independent external review
- many operational model variations



Program Description

- host university with administrative support staff
- multiple federal agencies
- partner institutions (at least one minority institution)
- federal managers committee
- role and mission statement
- strategic plan and annual work plans
- website
- annual partners meeting

CESU Council (13 federal agencies)

program oversight

**federal agency
regional / state offices**

administrative supervision

**federal managers
committee**

strategic plan, advice and guidance,
5-yr renewal process

Cooperative Ecosystem Studies Unit

tribes

agencies

**agency science
coordinators
(optional)**

host university

NGOs

academia

annual work plan and project coordination

**land management
units within
geographic area**





Example Projects

Projects can be

- Research,
- Education, and/or
- Technical Assistance



C o o p e r a t i v e E c o s y s t e m S t u d i e s U n i t s N e t w o r k



Example Projects

Regional Interagency Climate Change Workshop Series



NPS photo



Example Projects

Salt Marsh Restoration in Chesapeake Bay

NPS photo



Example Projects

Contaminants Assessment in Southeast Alaska

NPS photo



Example Projects

A Climate Change Education Module on Pacific Island Coral Reefs



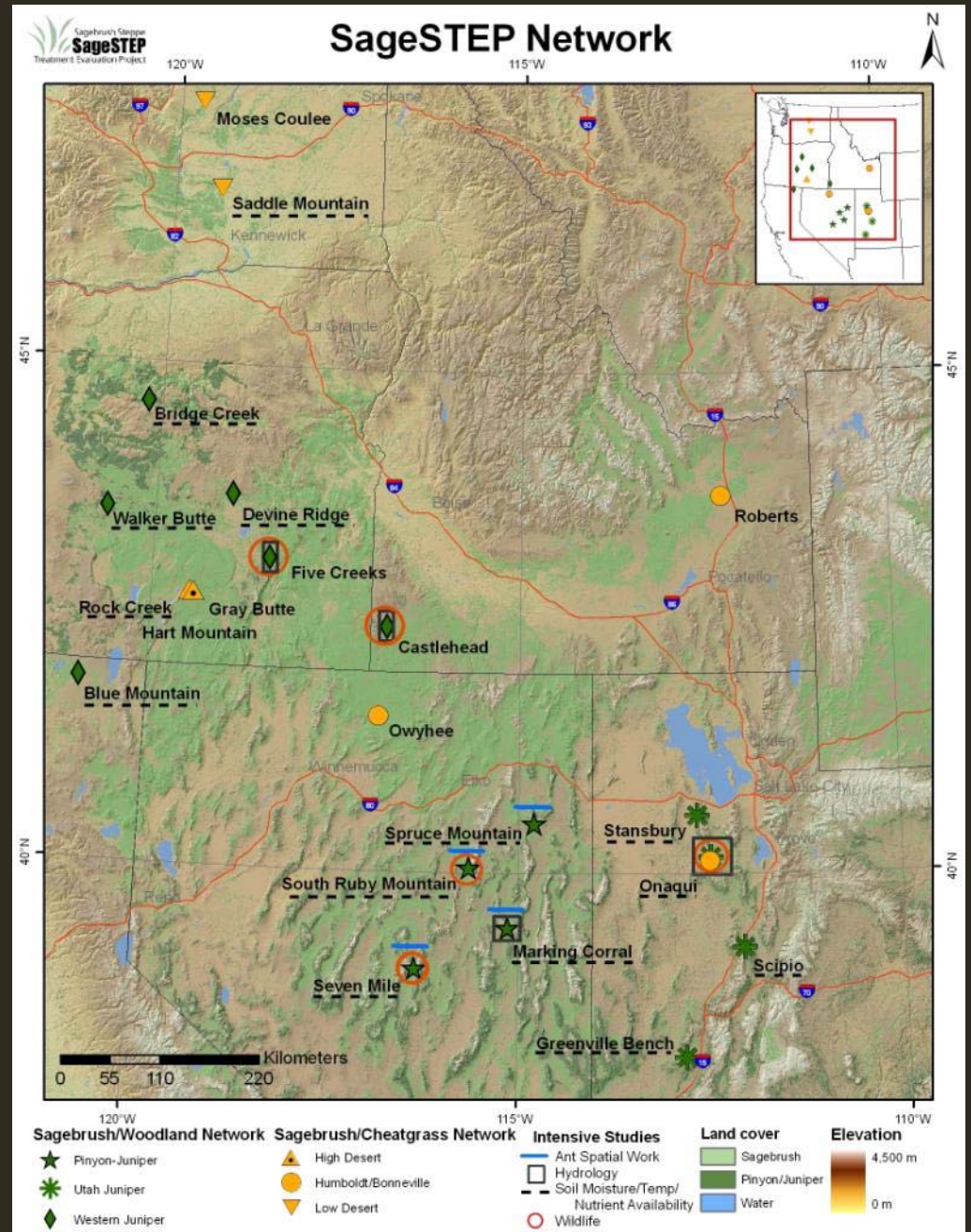
Cooperative Ecosystem Studies Units Network



Example Projects

Sagebrush Steppe Treatment Evaluation Project (Sage STEP)

Sage STEP photo





Example Projects

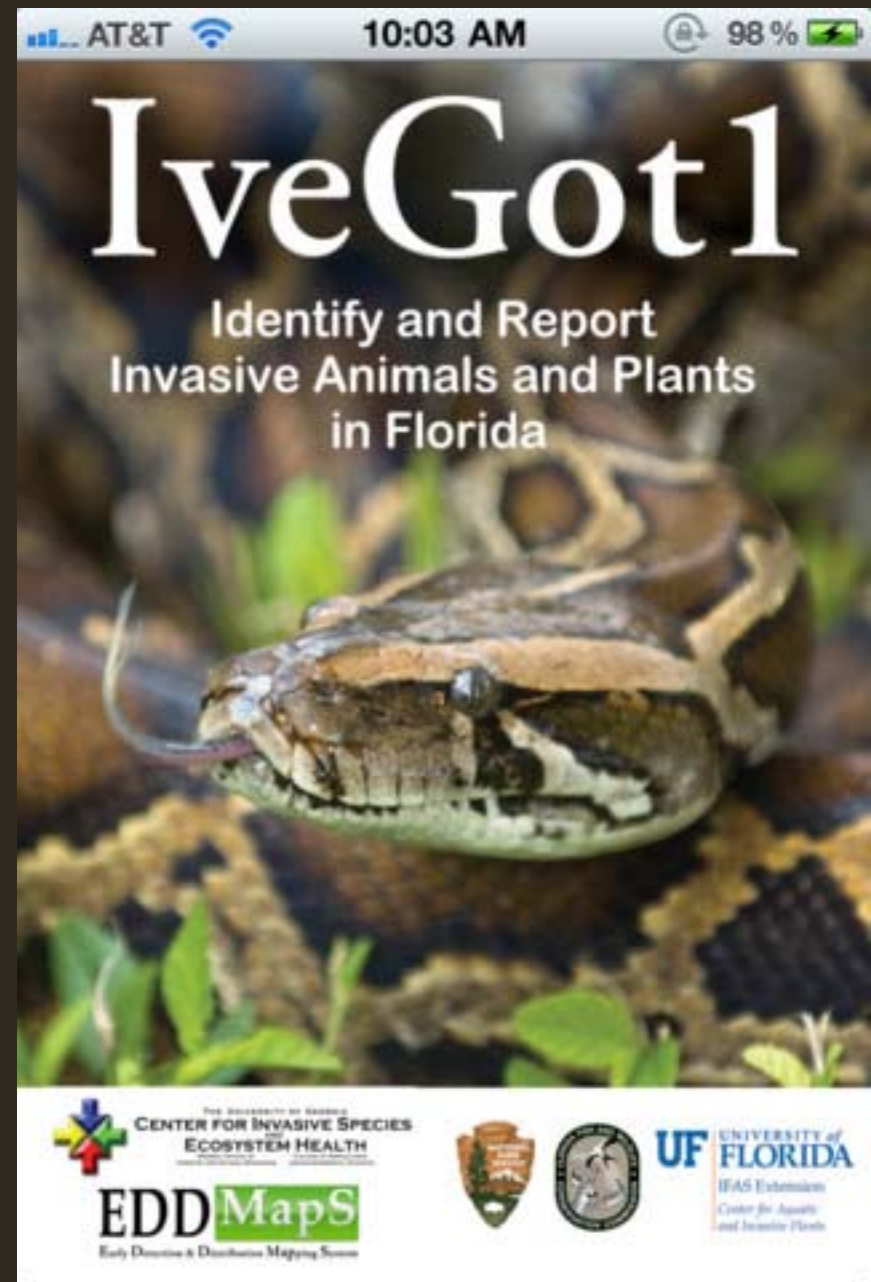
**Exotic Species Control
in South Florida**

NPS photo



Example Projects

Mobile App to Identify and Track Invasive Exotics in Florida



University of Georgia photo



Example Projects

Archaeological Field School in Hawaii

NPS photo



Example Projects

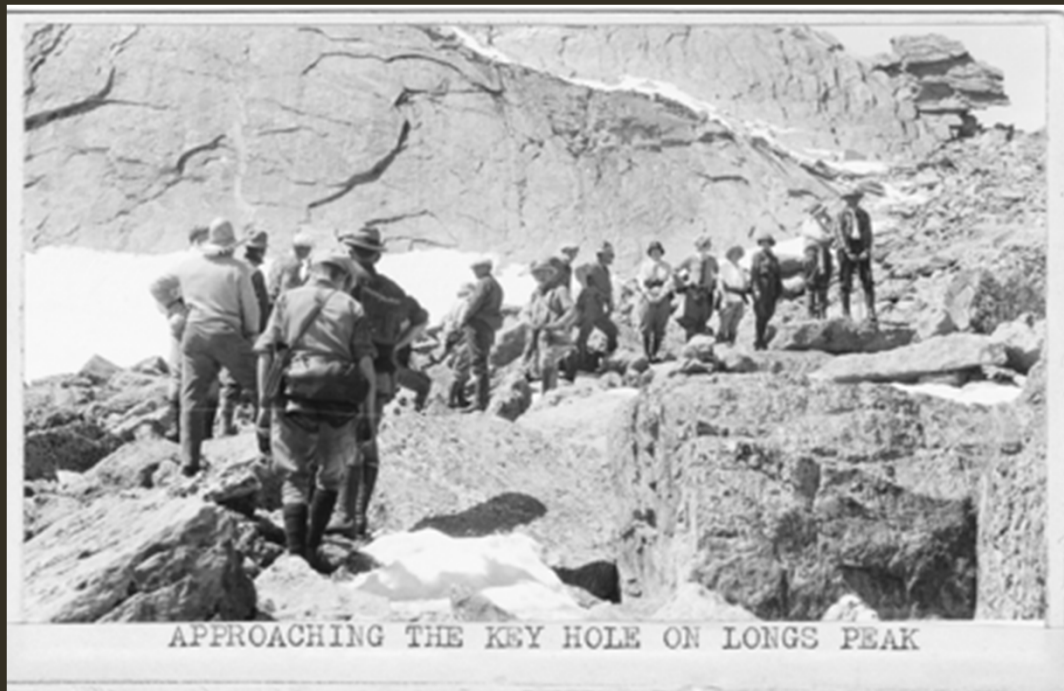


**Developing, Testing, and Implementing the
Recovery Credit System**

Texas A&M University photo



Example Projects



People and Nature on the Mountaintop

A Resource and Impact Study of Longs Peak in Colorado

Cooperative Ecosystem Studies Units Network

NPS photo



Example Projects

Costal Watershed Condition Assessments

NPS photo



Example Projects

Humpback Chub Reintroductions and PIT-tag Technology

BLM photo



Example Projects

Shifting Risk Perceptions of Wildlife Disease: A Study of Avian Outbreak

Cornell University photo



Example Projects



**Remote Sensing Training for the
Natural Resources Conservation Service**

West Virginia University photo



Example Projects



Natural and Cultural Crossroads: An Environmental History of Pecos National Historical Park

NPS photo



Example Projects

Documenting Fire History in National Parks, Monuments and Historic Sites of the Great Plains

George Catlin painting, Smithsonian American Art Museum



Example Projects



Joshua Tree Vegetation Modeling: Predicting Shifts in the Face of Climate Change

University of California, Riverside, photo



Example Projects

Student Internships: Warriors Project





Example Projects

Student Internships: Tahabi Fellowship

NPS photo



Example Projects



SERPPAS works to prevent encroachment around military lands, encourage compatible resource-use decisions, and improve coordination among regions, states, communities, and military services.



Cooperative Ecosystem Studies Units Network



Future of the CESU Network

- adding new federal and nonfederal partners
- expanding participation and scope of the CESU Network with existing network partners
 - sustainability science
 - green engineering and technology
 - renewable/sustainable energy
 - green workforce development
 - international collaboration
- elevating opportunities for capacity building for tomorrow's environmental professionals
 - national office fellowship program
 - system-wide internship program

Cooperative Ecosystem Studies Units



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