



Great Plains Cooperative Ecosystem Studies Unit Network

snr.unl.edu/gpcesu



Overview

- **Introduction to National CESU Network**
- **What are the mutual benefits?**
- **Description of Great Plains CESU**
 - **Where is it?**
 - **What's its mission?**
 - **Who's in it?**
 - **What are the current themes?**
 - **Project examples?**
- **How you can take advantage of this**





- Research
- Technical assistance
- Education



Advantages of Using CESU's

For Federal Agency Partners:

- Adds depth and breadth to the expertise of any federal agency
- Offers a simple, expedient cooperative agreement which is already approved (saves time and effort)
- Is a bridge of communication with other federal agencies and universities
- Opens opportunities for training in professional development or resource specific issues.
- 17.5% overhead rate (does not pass through the host institution)



Advantages of Using CESU's

For Non- Federal Partners:

- **Positions the partner into a long term collaborative relationship with several federal agencies**
- **Opportunities for graduate and undergraduate involvement in a Federal agency project**
- **Enhanced ability to conduct research at multiple scales and sites**
- **Better access to federal resources to conduct projects of mutual interest**



GP-CESU Institution Partners:

- University of Nebraska-Lincoln (host)
- Black Hills State University
- Colorado State University
- Emporia State University
- Kansas State University
- Langston University
- New Mexico Highlands University
- North Dakota State University
- South Dakota School of Mines & Technology
- South Dakota State University
- Texas A&M University
- University of Minnesota
- University of North Dakota
- University of Oklahoma
- University of South Dakota
- University of Wyoming
- Winona State University



GP-CESU Federal Partners:



Army Corps of Engineers



Forest Service



Bureau of Land Management



Geological Survey



Bureau of Reclamation



National Park Service



Fish and Wildlife Service



Natural Resources Conservation Service





Mission:

To determine the ecological state of public lands of the Great Plains and examine its future within the context of private lands. Our focus is on improving the scientific basis for managing ecosystems in the region, through more active and interactive technical assistance, research, and education among the partner institutions and agencies.



Themes

- **Biological invasions and their impacts on ecosystem integrity**
- **Habitat fragmentation for species threatened and endangered**
- **Health of aquatic ecosystems, including agrochemicals and nutrients**
- **Preservation and/or restoration of native aquatic and terrestrial communities**



GP-CESU Themes (cont')

- **Social and cultural values of natural areas under changing population and land use**
- **Timely transfer and access of information for resource management and policy**
- **Implications of global environmental change on managed and unmanaged ecosystems**
- **Implications of land use change on ecosystem integrity**



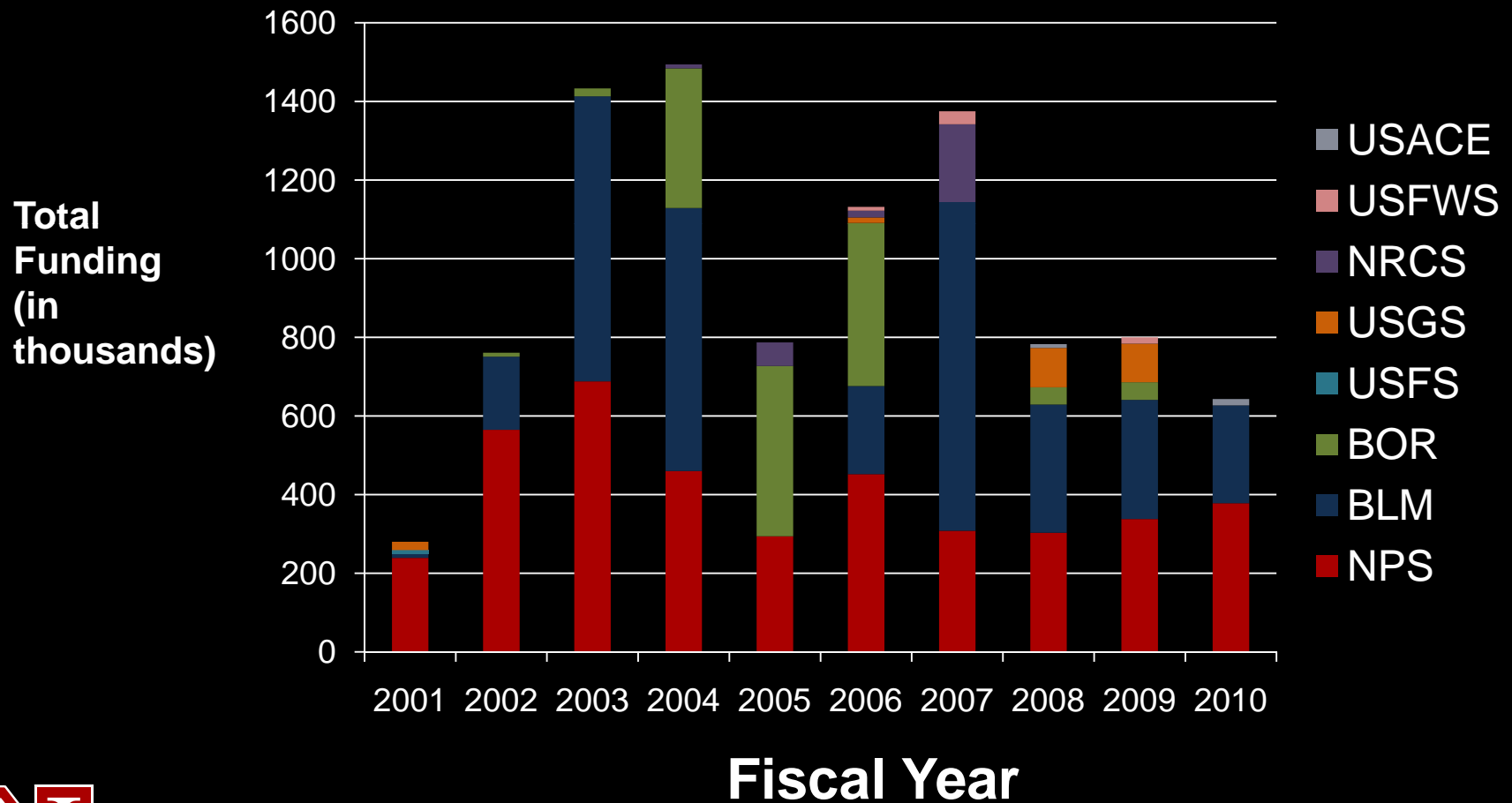


Project Snapshot FY 01-10

Project funds: \$9,485,884
Number of projects: 300



Funded Dollars by Funding Agency, GP-CESU, FY 2001 – 2010*



*not all 2010 projects have been reported yet



Great Plains Cooperative Ecosystem Studies Unit

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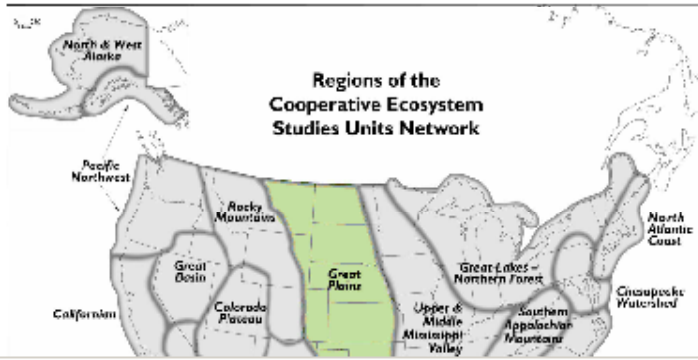
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The Great Plains Cooperative Ecosystem Studies Unit (GP-CESU) is a network of 13 academic institutions in the Great Plains region and six federal agencies. The University of Nebraska-Lincoln serves as host to the GP-CESU. The unit encompasses a broad geographical portion of the Great Plains and offers an outstanding group of scientists in grasslands, ecosystems studies, and natural and cultural resources management for collaborative research, technical assistance and educational opportunities in the CESU.



GP-CESU Web Site

- Faculty and agency personnel can find information on how to start a project, past and current projects, final reports, and important GP-CESU documents
- Faculty can research needs of the agencies to determine if their expertise can meet the need of a park/agency
- Agency personnel can search for potential PI's by expertise or by a particular partner institution



GP-CESU project disciplines: Biological



Monitor for Chronic Wasting disease: Deer movements, density, and potential transmission at Wind Cave NP (South Dakota State University)

- **Black-tailed prairie dog town demographics and metapopulation monitoring (University of Wyoming)**



- **Effects of red cedar removal on bird**



GP-CESU project disciplines: Physical

- **The unique geometry of waterfalls along the scenic Niobrara River (University of Nebraska)**



- **3D Geology and Regional Inventory of Groundwater Resources (University of Minnesota)**

- **Karst aquifer effect on stream discharge variation in the Jacks Fork River Basin in the Ozark Highlands (University of Nebraska)**



GP-CESU project disciplines: Cultural



**Historic American Engineering Record
of the Bomber Plant and SAC Headquarters
(University of Nebraska)**

**Archeological Investigation of the Elbee
Site, Knife River Indian Villages National
Historic Site (University of North Dakota)**



**Shipwrecks and Related Sites
on the Missouri River (University
of South Dakota)**



GP-CESU project disciplines: Social

- **Develop Colorado on the Move Guidebook (Langston University)**



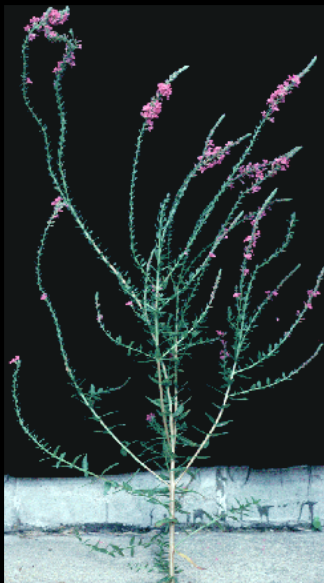
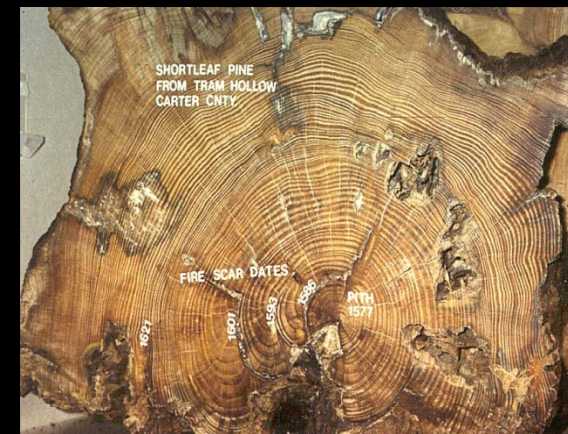
- **Visitor Experience Survey for Padre Island National Seashore (Texas A&M University)**

**Apostle Islands National Lakeshore:
Meaning & Values Exploration
(University of Minnesota)**



GP-CESU project disciplines: Collaborative & Interdisciplinary

History of the Great Plains
(GP-CESU, UMMV CESU, University of Missouri, University of Nebraska, The Nature Conservancy, NPS, USGS)



Noxious weeds inventory and mapping at three national park units (NPS, USBR, USDA)
(Plant Ecology, GIS/RS)



How can you take advantage of this opportunity?

- **Visit the GP-CESU web site to learn more about the partner institutions and agencies**
- **Monitor web site for research and technical assistance needs and calls for proposals**
- **Contact a lead person at the host or a partner institution or agency**



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