

Great Basin Research and Management Partnership



Great Basin Consortium Meeting
November 7 – 9, 2011

<http://greatbasin.wr.usgs.gov/gbrmp/>

Great Basin Research and Management Partnership

Mission

- Integrated research and management organization,
- Promotes comprehensive and complementary collaborations, and
- Provides leadership, commitment and guidance to ensure that the collaborations are effective





[GBRMP Goals

Promote comprehensive and complementary collaborations



- Maximize integration of science and management
- Provide leadership and commitment
- Grow inter-disciplinary, multi-organizational teams
- Commit and leverage limited resources
- Implement communication and information sharing

Partner Organizations

- Desert Research Institute
- Idaho State University
- Oregon State University
- University of Nevada, Reno
- University of Nevada, Las Vegas
- Utah State University
- Nevada Department of Wildlife
- Utah Department of Natural Resources
- National Aeronautics and Space Administration
- National Park Service
- Natural Resources Conservation Service
- U.S. Fish and Wildlife Service
- U.S. Geological Survey
- USDA Agricultural Research Service
- USDA National Institute of Food and Agriculture
- USDA Forest Service, Region 4 and Rocky Mountain Research Station
- USDI Bureau of Land Management

GBRMP Beginnings, 2006

Workshop on Collaborative Research and Management

200 Research and Management
Participants

Federal, Tribal, State, Local, NGO

Focus

Obtaining science information

Priority issues

Available resources

Building effective collaborations

Summary

Chambers, J. C., N. Devoe, A. Evenden. 2008. Collaborative management and research in the Great Basin – Examining the issues and developing a framework for moving forward.



General Agreement

Integrated, collaborative
framework is needed
to sustain Great Basin
ecosystems

GBRMP Structure

Executive Committee

- Provide leadership and authority
- Pursue and allocate resources
- Assure progress and transparency

Coordinating Committee

- Identify issues
- Develop and assist Working Groups
- Monitor and report progress

Working Groups

Information Management Group

- Communication and information sharing
- Develop/maintain web-based clearinghouse, tools

Science/Technical Group

- Address priority research needs
- Synthesize existing information
 - Conduct new research
- Develop recommendations



GBRMP Unique Contributions to the GB Consortium

- Really a grassroots organization
 - Partners/collaborators from many Great Basin organizations
 - Includes: Federal – State – Local – Tribal – Private – NGO
- Mobilizes teams of researchers and managers to fund and implement projects that address priority science needs
- Provides a web based clearinghouse of information for the Great Basin





GBRMP Unique Contributions

Science Working Groups

USDA REENet (Research, Education and Extension Network)
Exotic *Bromus* grasses in agroecosystems of the Western US. Synthesis of current and future invasions, impacts and management

USGS Powell Center

Integrating ecological forecasting methods to improve prioritization of natural resource management: An invasive species example

Joint Fire Science Program

Great Basin Science Delivery Project: Focused on fire and fire ecology



GBRMP Unique Contributions

Information Working Group

Web-based Clearinghouse of Great Basin Information

- Initially supported by USGS FRESC, USFS RMRS and OSU
- Tools and Features
 - Consortia Data Base
 - Expert's Data Base
 - Research Catalog and The Science Locator
 - Bibliography (>6,800 citations on Great Basin)
 - Upcoming Meetings and Links
 - Metadata Server
 - Project pages:
 - Joint Fire Science Great Basin Science Delivery
 - USDA REENet (Research, Education and Extension for Managing Invasive Bromes)

<http://greatbasin.wr.usgs.gov/gbrmp>

GBRMP Website: Consortia Database

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GBRMP Consortia Database

Conservation in the Great Basin is increasingly being pursued through the creation of multi-agency, interdisciplinary committees, consortia, coalitions, working groups, and partnerships. The GBRMP Consortia Database provides a way to easily identify various groups in the Great Basin and obtain a quick reference to their goals, points of contact, and relationships.

There are 3 ways to search the database: by selecting a consortium from a pull-down list of all consortia; by searching for consortia using a word in the consortium name; or by selecting from keyword, agency, and state lists. Click on the button that describes the search you want to use. A list of consortia that match your search criteria will appear to the right of the search. Click on a consortium in the list to view details about the group and partners within that group.

Click on a button below to choose a selection method:

Select a Consortium from the List (single return)

Search for Consortia by Name (multiple returns)

Enter a search term in the box and click the button.

Advanced Search (keyword, agency, state)

Click on a consortium to view details in box below.

Cooperative Sagebrush Initiative

Cooperative Sagebrush Steppe Restoration Initiative

Sagebrush Bird Conservation Network

Sagebrush Landscape Project

Sagebrush Sea Campaign

SageSTEP, Sagebrush Steppe Treatment Evaluation Project

Cooperative Sagebrush Initiative

[Website](#)

Contact: Karl Hess

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Click on a button below to choose a selection method:

Select a Consortium from the List (single return)

Search for Consortia by Name (multiple returns)

Enter a search term in the box and click the button.

Get Consortia data list

Advanced Search (keyword, agency, state)

Click on a consortium to view details in box below:

Cooperative Sagebrush Initiative

Cooperative Sagebrush Initiative

Website

Contact: Karl Hess

Email: karl_hess@fws.gov

Phone: 703-358-2293

Region: Western US

Initiated: 2006

Mission Statement: Recovery of the western sagebrush steppe biome Through a collaborative, coordinated, and cost-effective public-private partnership Built upon incentives for landowners, local communities, and private industry to invest in habitat restoration and other conservation actions Resulting in long-term, verifiable recovery of the greater sage grouse and improvement of other species of concern in the sagebrush range.

Objectives: ? Explore opportunities for shared stewardship on public lands ? Maximize ecological outcomes per dollar invested in species conservation ? Explore more effective ways to achieve mitigation, such as conservation credits ? Promote efficient expenditure of conservation funds region-wide for all parties ? Facilitate resource sharing, enabling one-stop conservation assistance ? Focus on conservation outcomes based on solid science and monitoring ? Foster operational efficiencies for agencies, industry, and conservationists ? Encourage conservation innovation through experimentation ? Increase opportunities to resolve conflict short of litigation ? Achieve savings for conservation through administrative efficiencies ? Focus on incentives to encourage effective private land stewardship

Partners:

GBRMP Website: Participants / Expertise Database

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Search the GBRMP Participants and Expertise Database

[Submit a new participant or expertise](#)

Use a Keyword Search to generate a list of GBRMP Participants and Expertise in one of two ways:

1. Select keywords from the "Choose Keywords" list below that describe the subject(s) in which you are interested. Multiple keywords can be selected by holding down the Ctrl key. Note: This extensive keyword list is drawn from the [Community of Science](#), and contains over 1,000 options. Alternately, you may wish to:
2. Type in search terms (separate each term with a comma) in the "Add Additional Search Terms" below the keyword list. Select whether the search should be for any term entered or for all terms entered, then click the Search button.

A list of Participants and Experts that match your search criteria will appear to the right of the Keyword list. Click on an expert in that list to view details and contact information.

Choose Keywords

Great Basin Priority Issues
Aboriginal Studies
Acid Precipitation
Aerial Geography
Agribusiness
Agricultural Chemistry
Agricultural Collectives or Cooperatives
Agricultural Conservation
Agricultural Economics
Agricultural Engineering
Agricultural Finance

Name	Expertise
Belmont, Patrick	Water Resources, Urbanization and Changing Land Use, Geomorphology, Hydrology
Buto, Susan	Earth Remote Sensing, Spatial Data or Analysis, Geographic Information Systems, Geographic Quantitative Methods, Water Resources
Calvin, Wendy	Energy Geosciences, Renewable Energy, Earth Sciences Education, Mineralogy, Remote Sensing
Glenn, Nancy	Remote Sensing Technology, Satellite Detection or Classification, Earth Remote Sensing, Geomorphology, Sagebrush Ecosystems
Heide, Sarah	Fire, Aspen Ecosystems, Sagebrush Ecosystems, Range Management
Howard, Keith	Natural and Physical Sciences, Mathematics and Technology, Geology,

GBRMP Website: Participants / Expertise Database

- Provides bio
- Contact information
- Website link

Choose Keywords

- Great Basin Priority Issues
- Aboriginal Studies
- Acid Precipitation
- Aerial Geography
- Agribusiness
- Agricultural Chemistry
- Agricultural Collectives or Cooperatives
- Agricultural Conservation
- Agricultural Economics
- Agricultural Engineering
- Agricultural Finance
- Agricultural Geography
- Agricultural Law
- Agricultural Management
- Agricultural Planning or Policy
- Agricultural Products, Physical Properties
- Agriculture
- Agriculture Education
- Agronomy
- Air Pollution
- Air Quality
- Air Transportation
- Algorithms
- American Studies
- Analysis and Functional Analysis

Add additional Search terms

Any term All terms

Name	Expertise
Bekedam, Steven	Invasive Plants, Sagebrush Ecosystems, Fire
Biondi, Franco	Dendroecology, Statistical Ecology, Spatial Data or Analysis, Environmental Monitoring, Water Resources Environmental Impacts
Brown, Jack	Great Basin Priority Issues, Fire, Invasive Plants, Sagebrush Ecosystems
Brunson, Mark	Behavioral or Social Studies, Fire, Invasive Plants, Public Perceptions of Land Management, Range Management
Call, Chris	Sagebrush Ecosystems, Invasive Plants, Range Management
Carlock, Carol	Fire
Chadwick, Brook	Fire
Chambers, Jeanne	Sagebrush Ecosystems, Riparian and Aquatic Ecosystems, Invasive Plants, Plant Ecology, Fire
Dong, Dexter	
Drake, Barbara	Environmental Restoration or Remediation, Hydrology, Watersheds, Water Rights
Evers, Louisa	Fire, Sagebrush Ecosystems, Forest Management
Finch, Deborah	Rare and Vulnerable Species, Riparian and Aquatic Ecosystems, Biological Sciences, Environmental Sciences, Climate Change
Fleishman, Erica	Climate Change, Fire, Natural Resources Management, Conservation Biology, Landscape Ecology
Germino, Matthew	Fire, Invasive Plants, Sagebrush Ecosystems, Plant Ecology, Biotechnology
Glenn, Nancy	Remote Sensing Technology, Satellite Detection or Classification, Earth Remote Sensing, Geomorphology, Sagebrush Ecosystems
Gretswell, Robert	Fire, Climate Change, Rare and Vulnerable Species, Riparian and Aquatic Ecosystems, Biological Sciences
Gutschick, Vincent	Climate Change, Water Resources, Crop Modeling, Plant or Soil Nutrient Bioavailability, Biological Modeling
Hallows, Brant	
Hardegrave, Stuart	Invasive Plants, Environmental Restoration or Remediation

Details about the selected expert:

Name: Deborah Finch

Position: Research Wildlife Biologist

Affiliation: USDA Forest Service

Affiliation Group: Federal Government

Address: 333 Broadway SE
Suite 115 Albuquerque, New Mexico 87111

Phone Number: 505-401-0580

E-mail: dfinch@fs.fed.us

Website: <http://www.fs.fed.us/rmrs/albug>

Expertise: Rare and Vulnerable Species, Riparian and Aquatic Ecosystems, Biological Sciences, Environmental Sciences, Climate Change

Interests: Climate Change, Invasive Plants, Fire, Urbanization and Changing Land Use, Rare and Vulnerable Species, Riparian and Aquatic Ecosystems

Additional Information: Deborah Finch received her Bachelors Degree in Wildlife Management from Humboldt State University, Arcata, CA, her Masters in Zoology and Physiology from Arizona State University, Phoenix, and her PhD in Zoology and Range Science from University of Wyoming, Laramie. Deborah has been a research wildlife biologist employed by the Rocky Mountain Research Station since 1978. Her research interests include assessing climate change, ecosystem restoration, fire and fuel management ecology, riparian and grassland ecology and health, avian reproductive ecology and habitat relationships, invasive and exotic plants, community ecology, endangered species, and technology transfer. During her career, she has worked on various research projects in Colorado, Wyoming, Arizona, Oklahoma, Texas, Oregon, New Mexico, California, and Mexico.

Interested in the following working groups:

GBRMP Website: Science Locator

- Query database
 - Class of research
 - Agency
 - Scientists
- Example:
 - Cheatgrass
 - Restoration
 - Habitat improvement



Science Locator

- | | |
|---|---|
| <input type="checkbox"/> Amphibians | <input type="checkbox"/> Aquatic Biology |
| <input type="checkbox"/> Birds | <input type="checkbox"/> Butterflies |
| <input type="checkbox"/> Cattle Grazing | <input checked="" type="checkbox"/> Cheatgrass |
| <input type="checkbox"/> Climate Change | <input type="checkbox"/> Colonial Nesting Birds |
| <input type="checkbox"/> Community Ecology | <input type="checkbox"/> Conservation |
| <input type="checkbox"/> Disturbance Ecology | <input type="checkbox"/> Ecology and Kids |
| <input type="checkbox"/> Energy Development | <input type="checkbox"/> Environmental Indicators |
| <input type="checkbox"/> Fire | <input type="checkbox"/> Fire Ecology |
| <input type="checkbox"/> Fish | <input type="checkbox"/> Forest Management |
| <input type="checkbox"/> Genetic Conservation | <input checked="" type="checkbox"/> Habitat Improvement |
| <input type="checkbox"/> Herbicides | <input type="checkbox"/> Hydrology |
| <input type="checkbox"/> Information Management | <input type="checkbox"/> Invasives |
| <input type="checkbox"/> Invertebrates | <input type="checkbox"/> Mammals-American Pika |
| <input type="checkbox"/> Mammals-Bighorn Sheep | <input type="checkbox"/> Mammals-Other |
| <input type="checkbox"/> Mammals-Prairie Dogs | <input type="checkbox"/> Mammals-Pygmy Rabbits |
| <input type="checkbox"/> Mammals-Wild Burros & Horses | <input type="checkbox"/> Management |
| <input type="checkbox"/> Mapping | <input type="checkbox"/> Native Plants |
| <input type="checkbox"/> Off Road Vehicles | <input type="checkbox"/> Pinyon-Juniper Encroachment |
| <input type="checkbox"/> Plants | <input type="checkbox"/> Prescribed Fire |
| <input type="checkbox"/> Rangeland Disturbance | <input type="checkbox"/> Raptors |
| <input type="checkbox"/> Remote Sensing | <input type="checkbox"/> Reptiles |
| <input checked="" type="checkbox"/> Restoration | <input type="checkbox"/> Riparian Ecology |
| <input type="checkbox"/> Sage Grouse | <input type="checkbox"/> Sagebrush |
| <input type="checkbox"/> Seeding | <input type="checkbox"/> Shorebirds |
| <input type="checkbox"/> Slickspot Peppergrass | <input type="checkbox"/> Soil Crusts |
| <input type="checkbox"/> Songbirds | <input type="checkbox"/> Surface Litter |
| <input type="checkbox"/> Waterbirds | <input type="checkbox"/> Wetlands Management |
| <input type="checkbox"/> Wildfire | <input type="checkbox"/> Wildlife Diseases |



- Legend/Layers
- Overview Map
- Zoom In
- Zoom Out
- Full Extent
- Zoom Last
- Pan

Get Project Info

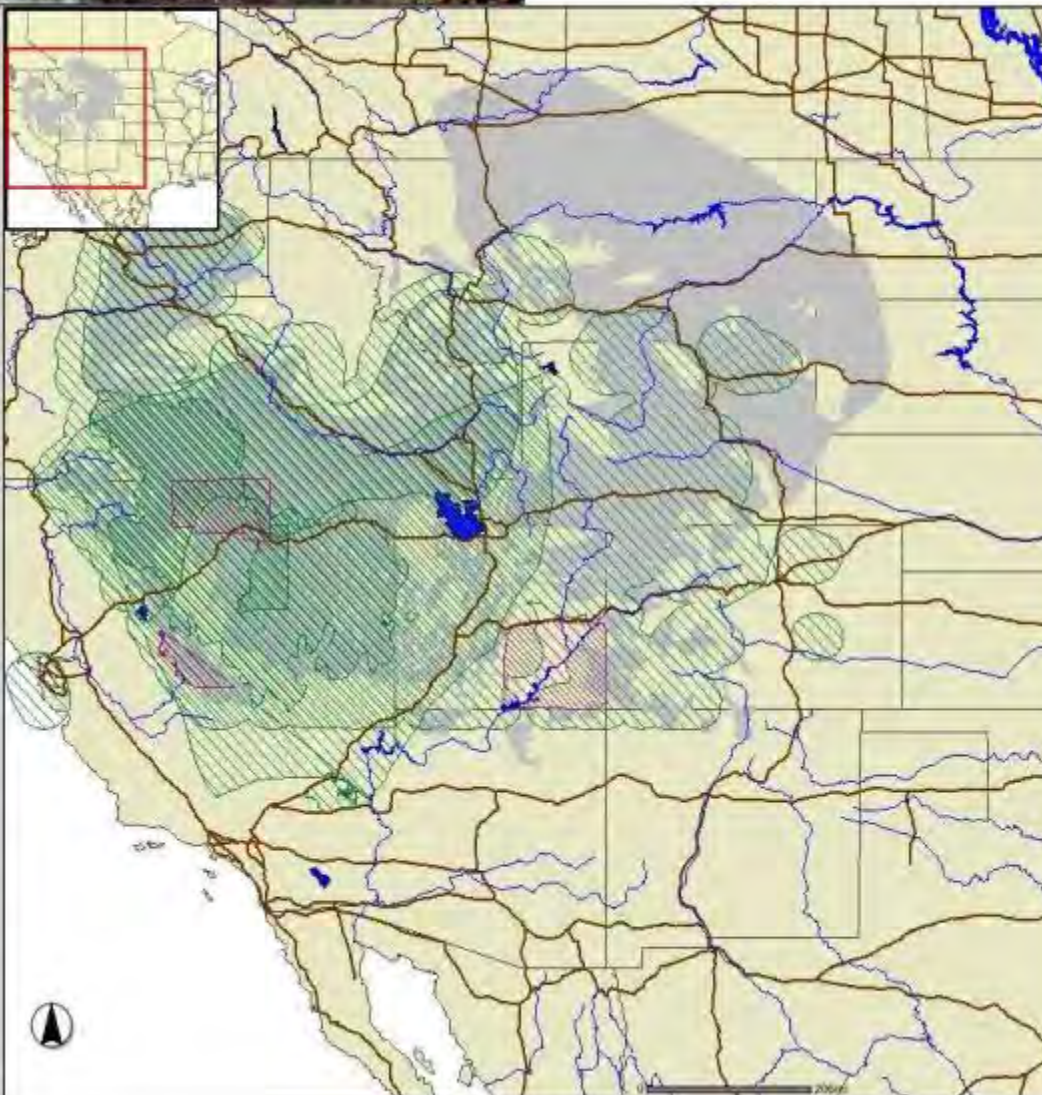
Help

Exit

TOOL HINTS:

- Use the **'Legend/Layers'** tool to toggle between the map symbology and the layer selection list.
- Use the **'Zoom'** and **'Pan'** tools to navigate around the map.
- When you are ready to get details on a specific project, click on the **Lightning Bolt (Get Project Info)** then click on a project polygon or point on the map.
- Select a specific project by clicking on the **Project ID** number in the pop-up window.

Use the **'Help'** button for more assistance.



INSTRUCTIONS:

Use the GO button below to search for Science Projects. This will allow you to select projects based on: the primary focus or **CLASS**, sponsoring **AGENCY**, or principal **SCIENTIST**. After selecting a subset of projects you will see a map with polygons and/or points indicating specific project locations.

Select Points/Areas of Interest

GO

Legend

Science Locator Points

- Cheatgrass
- Habitat Improvement
- Restoration
- Major Rivers
- Interstate Highways
- Areas of Interest**
- Cheatgrass
- Habitat Improvement
- Restoration
- Major Lakes
- Historical Sage-Grouse Range
- States



0 10000 20000

1

2

GBRMP Website: Science Locator

Areas of Interest						
Rec	ID	ID_1	PRJ_STATUS	CLASS	SCI_L_NAME	AGENCY_ABR
4	63	63	Completed	Restoration	Pyke	USGS-FRESC
28	169	169	Active	Cheatgrass	Miller	USGS-SBSC
29	170	170	Active	Cheatgrass	Chavez	USGS-WR-GEOG



Cheatgrass Distribution and Dynamics in Relation to Soil-Geomorphic Properties in Southeaster Utah (Mark Miller, USGS, SBSC)

Cheatgrass Distribution and Dynamics in Relation to Soil-Geomorphic Properties in Southeastern Utah

We are investigating effects of landscape evolution and inherited soil-geomorphic attributes on the spatial distribution and temporal dynamics of cheatgrass in the midst of sagebrush-dominated landscapes of southeastern Utah. This work combines intensive and extensive field studies with analyses of remotely sensed imagery to develop and test hypotheses concerning edaphic controls over cheatgrass invasion patterns on public lands managed by BLM, NPS, and The Nature Conservancy. Methodological approaches and results have potential applicability to sagebrush steppe in the Great Basin.

Mark Miller
Research Ecologist
435-644-4325
mark_miller@usgs.gov
<http://sbsc.wr.usgs.gov/>

No photographs exist for this project.



[GBRMP Unique Contributions]

Workshops and Symposia

- Collaborative Research and Management. 2006
Workshop
- Alternative Futures for the Great Basin. 2007
Ecological Society of America, Oral Session
- New Paradigms for Collaborative Research and
Management in the Great Basin. 2011 Society for
Range Management Symposium



GBRMP Unique Contributions

Syntheses of Critical Issues

- “Collaborative Management and Research in the Great Basin—*Examining the Issues and Developing a Framework for Action*” **USDA Forest Service, RMRS**
- “*Great Basin Research and Management – Priority Issues for an Imperiled Ecosystem*” **Restoration Ecology**
- “Climate change impacts on Northwestern and Intermountain US rangelands” **Rangelands**





GBRMP Strategic Plan

Mapping the Road Forward

Strategic plan in place for:

- Enhancing regional collaboration
- Addressing new consensus needs
- Developing mechanisms for support

Road forward....

GBRMP strengths:

- Successful partnership with outcomes
- Connect research to management
- Can serve all Great Basin Consortium
 - Website tools can be direct links from collaborator's pages
 - Website toolbox can grow with support

