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Rangelands Gateway - Delivering Reliable Rangeland Online Resources

Ashley Hall, Amber Dalke, Shelia Merrigan, Barbara Hutchinson, Sarah Noelle, and Jeanne Pfander

Introduction

If you are conducting research or looking for reliable answers to specific questions about rangeland ecology and management, <u>Rangelands Gateway</u> (which includes <u>Arizona Rangelands</u>) is available to meet your needs (Photo 1).

Rangelands Gateway and Arizona Rangelands were created by The Rangelands Partnership (RP), a multi-state collaboration of rangeland scientists, extension specialists and agents, agricultural librarians, and technology experts from land-grant universities. The original website, Managing Rangelands, was created in 1995 as part of an Agriculture Network Information Collaborative (AgNIC) project and focused on rangelands in Arizona. In 2002 the newly formed RP created the website Rangelands West to include more global engagement and resources, which were made available through the website Global Rangelands. After two decades of expanding and evolving, the RP launched Rangelands Gateway in 2021, which consolidated all the RP's scholarly contributions into a central website. There are seven sections listed on the left-hand navigation bar of the website: library collections, partner state resource websites (including Arizona Rangelands), topics, past and current projects, tools, highlights, and global rangeland information.

The website is based on a database of quality, peer-reviewed resources related to the ecology and management of rangelands. Partner states have created their individual state sites, such as Arizona Rangelands, using geographically relevant resources, most of which are included in the Rangelands Gateway database. Searching the database allows ranchers and rangeland professionals to discover thousands of journal articles, websites, images, databases, videos, maps, reports, and decisionmaking tools, useful for research, teaching, and practical applications for rangeland management.



Photo 1. Rangelands Gateway Home Page.

Website Sections

Searching for Specific Information

On the home page, a search box is provided that allows users to enter words or phrases to find resources in the Rangelands Gateway database. This is similar to a Google search and provides a means to locate specific and targeted rangeland information.

Library Collections

Rangelands Gateway offers a growing <u>library</u> of readily available full-text and multimedia materials (e.g., journal articles, reports, conference proceedings, learning modules, etc.) that provides a foundation for understanding rangelands. There are currently eleven local, national, and global collections containing over 25,000 resources.

Locally, the RP collaborates with the Altar Valley Conservation Alliance, a consortium of ranchers and land managers focused on watershed-based collaboration in Southern Arizona, to maintain a curated collection of technical reports, journal articles, and case studies on Sonoran Desert ecology, management, and conservation. Local stakeholders help identify areas for development on the website.

Nationally and internationally, the RP collaborates with the Society for Range Management (SRM) to host three collections of rangeland content on *Rangelands Gateway: Rangeland Ecology & Management, Rangelands,* and Annual Meeting Abstracts. Rangelands *Ecology & Management (REM, formerly Journal of Range Management)* consists of scholarly peer-reviewed articles published by SRM. Users can access REM articles on a rolling-window basis from Vol. 1, 1948 up to 5 years from the current year. Rangelands is practical, non-technical, peer-reviewed articles published by SRM which users can access on a rolling-window basis from Vol. 1, 1979 up to 3 years from the current year. More recent content of REM and Rangelands is available by subscription through SRM. SRM Annual Meeting Abstracts include oral presentation and poster titles, abstracts, and authors from the SRM Annual Meetings and Tradeshows from 2013 forward.

Additional national and global collections include Land Portal, Southern African Archival Collection (curated by the Grassland Society of Southern Africa), Range Science Information System (RSIS), Australian Rangelands (curated by the Australian Rangelands Society), Food and Agriculture Organization (FAO), Rangelands West, and Global Rangelands.

Partner State Resources

An interactive <u>partner state</u> map allows ranchers and rangeland professionals to select a state of interest and explore state-specific resources created by local extension specialists and agents, and agricultural librarians. Partner state pages include either direct links to the state's rangeland Extension webpage or state-specific rangeland resources, featured videos, podcasts, current events announcements, and an email contact form to communicate with state experts.

<u>Arizona Rangelands</u> allows users to view Arizona-specific local highlights, announcements, upcoming events, related resources, featured videos and podcasts, and key resources from the database (Photo 2). Information is curated from the Arizona section of SRM, University of Arizona Cooperative Extension, and other Arizona rangeland organizations.



Photo 2. Arizona Rangelands Home Page.

Topics

Synthesized rangeland information is critical to being informed on a wide variety of rangeland issues. <u>Topics</u> provide an opportunity for rangeland professionals, ranchers, and students to learn about the ecology, uses, and societal benefits of these vast and impressive landscapes (Photo 3). This information helps users understand the importance of conservation and restoration of rangelands for future generations. Topics are divided into broad categories with many additional resources included such as access to video trainings, webinars, photos, online tools, and journal articles.

Rangelands in the World offers insights about ecosystems dominated by grasses and shrubs, that span over half of the world's land surface (Olson et al., 2001). Human and Economic Dimensions aims to understand the complex rangeland issues related to ranch economics, ecosystem generational transfer, conflict resolution, services, and local knowledge. Large Landscape Conservation explores collaborative approaches to conservation and management that focuses on preservation across expansive, interconnected ecosystems. Maintaining and Improving Rangelands teaches about the importance of documenting vegetation and soil change over time through establishing monitoring indicators. This topic also covers many elements of range management issues and restoration strategies for brush and invasives encroachment or watershed improvement. Rangeland Ecology explores the complex relationship between water, climate, and fires and their impacts on the vegetation, animals, and soils across landscapes. Rangelands on Indigenous Lands investigates the importance of natural, cultural, spiritual, and sacred resources for Native peoples on North American rangelands.

<u>Uses of Range and Pastureland</u> explores how multiple uses of rangelands provide many benefits to society.

Of particular interest to Arizonans is a new Topic focused on <u>Public Lands Grazing</u>. This section focuses on information about public lands and public lands grazing intended for both the public and ranchers who want to know more about the history and characteristics of the public lands grazing system. This section is specifically for ranchers who use public lands as a part of their operation and is intended to provide the information needed to successfully navigate the National Environmental Policy Act process.

Projects

For the last two decades RP has successfully collaborated on local, regional, national, and international projects to create and distribute new rangeland knowledge.

Recent projects that enhance the lives and livelihoods of Arizona rangeland professionals and produces include:

- <u>RangeDocs: A National Grazingland Information</u> <u>System</u> is a project that created a new and innovative search tool that allows ranchers, Extension, state and federal agency staff, or anyone interested in rangelands to search rangeland terms and pinpoint highly relevant paragraphs of information from key national rangeland resources.
- <u>An Online Toolkit for Managing Shrub Encroachment</u> project is currently in development and will eventually bring together research and outreach to construct a practical, user-guided, web-based 'toolkit' for determining best options and opportunities for managing undesirable woody species.
- <u>Strengthening</u> Renewable Resources Extension Act



Photo 3. Rangelands Gateway Topics Page.

(RREA) Programing Through Enhanced Connections: A Web-based Conference Series. This section is a series of nine webinars based on RREA strategic issues and features several creative, innovative, and effective Extension programs.

The Art of Range Podcast is on ongoing project which provides education through conversation with some of the brightest minds in rangeland management. Interviewees include researchers, ranchers, and other rangeland resource professionals.

Tools

Access educational tools and resources for learning about the field of rangeland ecology and management. This section contains information on rangeland careers, distance courses, and teaching resources to expand the rangeland ecology and management curriculum with educational resources. Tools also includes engaging and educational rangeland videos and a glossary of rangeland terms, formally the SRM Glossary.

Highlights

This section highlights individual states' critical resources that may also be useful to other regions. Social media and videos are also showcased in this section.

Global Resources

The RP collaborates with organizations around the world to increase understanding of the importance of global rangelands to economic, environmental, and social health. Understanding rangelands from a global perspective can help Arizona ranchers and rangeland management professionals find research or additional resources from other counties with similar rangeland issues. The RP also has played a critical role in the effort to designate through United Nations an International Year of Rangelands and Pastoralists (IYRP) for the year 2026 and in that capacity maintains both the IYRP "online booth" and the IYRP Archive websites.

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References

Olson, D. M., Dinerstein, E., Wikramanayake, E. D., Burgess, N. D., Powell, G. V. N., Underwood, E. C., D'Amico, J. A., Itoua, I., Strand, H. E., Morrison, J. C., Loucks, C. J., Allnutt, T. F., Ricketts, T. H., Kura, Y., Lamoreux, J. F., Wettengel, W. W., Hedao, P., Kassem, K. R. (2001). Terrestrial ecoregions of the world: a new map of life on Earth. Bioscience 51(11): 933-938.



AUTHORS

ASHLEY HALL Area Assistant Agent, Agriculture and Natural Resources

AMBER DALKE

Research Specialist, Senior - School of Natural Resources and the Environment

SHELIA MERRIGAN Media Specialist, Principle - School of Natural Resources and the Environment

BARBARA HUTCHINSON Librarian Emerita - School of Natural Resources and the Environment

SARAH NOELLE Research Manager - School of Natural Resources and the Environment

JEANNE PFANDER Associate Librarian - Arizona Health Science Library

CONTACT

ASHLEY HALL

ashleys3@email.arizona.edu

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