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## Ecological Restoration Institute

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**June 2013**

## Ecological Restoration Institute

**PO Box 15017**

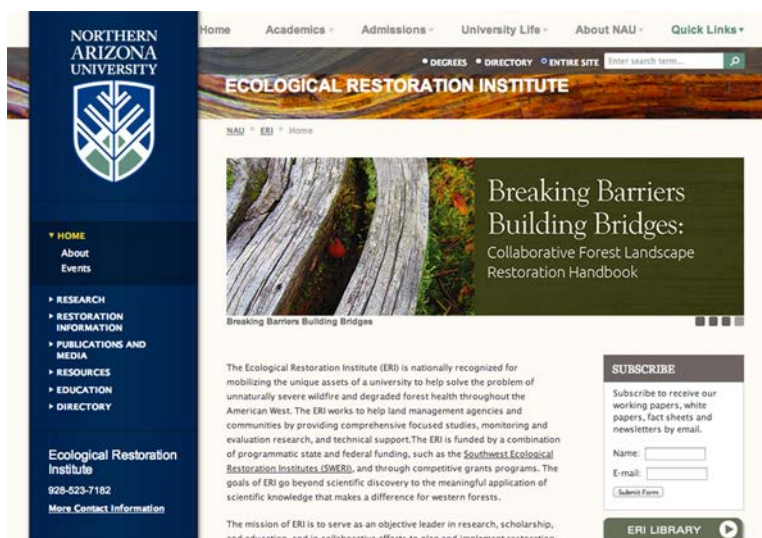
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### RESTORATION NEWS: ERI's New Look Online



ERI is pleased to announce the launch of our newly redesigned website. The new web design aligns with NAU's recent site-wide renovation—a year-long effort to harmonize all university-affiliated web pages to enhance accessibility of content and page organization across all departments, research institutes, and schools.

ERI's new, easily navigable main menu takes you to our research pages, restoration information, publications and media, and other resources. The homepage is designed to feature our most recent publications and upcoming events in a rotating module so you can stay informed on the latest restoration science and research. The homepage is also streamlined to include breaking news stories related to wildfire, ecological restoration, and forest policy news.

Visit the new ERI website at <http://nau.edu/ERI>. While there, feel free to join our social networks, including Facebook, Twitter, and YouTube, to stay up-to-date with ERI news and publications.

## UPCOMING EVENTS

### National Conference on Ecosystem Restoration

Dates: July 29-August 2, 2013  
Chicago, IL, Renaissance Schaumburg Convention Center Hotel

[More Information](#)

### Ecological Society of America 98<sup>th</sup> Annual Meeting

Date: August 4-9, 2013  
Minneapolis, MN

[More Information](#)

### 2013 Society for Ecological Restoration 5<sup>th</sup> World Conference

Date: October 6-11, 2013  
Madison, WI

[More Information](#)



Early bird registration deadline June 13

## ERI IN THE NEWS



ERI Director of Policy and Partnerships Diane Vosick testifying before the Senate Energy and Natural Resources Committee on June 4, 2013.

**Wyden Thumps White House for 'Baffling' Cuts to Hazardous Fuels Funding** Chairman Ron Wyden criticized the Office of Management and Budget on June 4 for what he called a 'baffling' proposal to reduce funding for hazardous tree removals in 2014. [More...](#)

**Senate ENR Panel to Examine Wildland Fire Management** Results from a recent ERI study were presented to lawmakers by Diane Vosick on June 4. [More...](#)





The Schultz Fire burned more than 15,000 acres in the Coconino National Forest in Arizona in 2010. Photo: Mike Elson, USDA, Coconino National Forest

**NAU Study Estimates Financial Impact of Wildfire** ERI released a study in late May on the impact of the 2010 Schultz Fire and subsequent flooding, which was estimated to cost more than \$130 million. [More...](#)

**Sequester Guts Wildfire Prevention, Sets Up Bigger Blazes...and Leaves Locals to Pick up the Tab** Fire ecologists, environmentalists, and firefighters describe an increasingly distorted federal budget that has apparently forgotten the old adage about an ounce of prevention. [More...](#)

## PUBLICATIONS

### ERI Fact Sheets:

Huffman, D.W. 2013. Fact Sheet: [Influence of Time Since Fire on Pinyon-Juniper Woodland Structure](#). Ecological Restoration Institute, Northern Arizona University, 2p.

Huffman, D.W. 2013. [Fact Sheet: Understory Plant Community Responses to Hazardous Fuels Reduction Treatments in Pinyon-Juniper Woodlands of Arizona, USA](#). Ecological Restoration Institute, Northern Arizona University, 2p.

Kalies, E.L. 2012. [Fact Sheet: Restoration Effects on Small Mammals and their Predators](#). Ecological Restoration Institute, Northern Arizona University, 2p.

Masek Lopez, S. 2013. [Fact Sheet: Forest Change and Water Balance: Investigating forest restoration treatment effects on soil water storage, evapotranspiration, groundwater recharge and surface water discharge](#). Ecological Restoration Institute, Northern Arizona University. 2p.

Nielsen, E. and F. Solop. 2013. [Fact Sheet: Forest Health and Water Supply Protection Project Ballot Measure: Exit Poll Results](#). Ecological Restoration Institute, Northern Arizona University. 2p.

Roccaforte, J.P. 2012. [Fact Sheet: Assessing Restoration Objectives Following a Second-entry Prescribed Fire in an Unharvested Mixed Conifer Forest](#). Ecological Restoration Institute, Northern Arizona University, 2p.

Stoddard, M. 2012. [Fact Sheet: Herbaceous Vegetation Responses Six Years After Restoration Treatments](#). Ecological Restoration Institute, Northern Arizona University, 2p.

Stoddard, M.T. 2013. [Fact Sheet: An Example of Forest Restoration in a Warm/Dry Mixed-Conifer Forest](#). Ecological Restoration Institute, Northern Arizona University, 2p.

Vosick, D. 2013. [Fact Sheet: Efficacy of Hazardous Fuel Treatments: A rapid assessment of the economic and ecologic consequences of alternative hazardous fuel treatments](#). Ecological Restoration Institute, Northern Arizona University. 2p.

Yarborough, R.F. and Loberger, C. 2013. [Fact Sheet: Tassel-eared Squirrel Habitat Use and Abundance in Managed Forests within the Wildland Urban Interface](#). Ecological Restoration Institute, Northern Arizona University, 2p.

### **ERI Working Papers:**

Reif, S., R.F. Yarborough, S.S. Rosenstock, E.L. Kalies, and S. Hedwall. 2013. [Wildlife Habitat Values and Forest Structure in Southwestern Ponderosa Pine: Implications for Restoration](#). Ecological Restoration Institute, Northern Arizona University, ERI Working Papers, 8 p.

### **ERI White Papers:**

Combrink, T., C. Cothran, W. Fox, J. Peterson, and G. Snider. 2013. [Full Cost Accounting of the 2010 Schultz Fire](#). Ecological Restoration Institute, Northern Arizona University. ERI-Issues in Forest Restoration, 44p.

Fitch, A., Y.S. Kim, and A.E.M. Waltz. 2013. [Forest Restoration Treatments: Their Effect on Wildland Fire Suppression Costs](#). Ecological Restoration Institute, Northern Arizona University. ERI-Issues in Forest Restoration, 12p.

### **ERI Reports:**

Ecological Restoration Institute. 2013. [The efficacy of hazardous fuel treatments: A rapid assessment of the economic and ecologic consequences of alternative hazardous fuel treatments: A document for policy makers](#). Northern Arizona University. 28p.

Egan, D. and Dubay, T., eds. 2013. [Breaking Barriers, Building Bridges: Collaborative Forest Landscape Restoration Handbook](#). Ecological Restoration Institute, Northern Arizona University, 212p.

Moote, A. 2013. [Closing the Feedback Loop: Evaluation and Adaptation in Collaborative Resource Management](#). Ecological Restoration Institute, Northern Arizona University, 44p.

### **Published in Journals:**

Huffman, D.W., M.T. Stoddard, J.D. Springer, J.E. Crouse, and W.W. Chancellor. 2013. [Understory Plant Community Responses to Hazardous Fuels Reduction Treatments in Pinyon-Juniper Woodlands of Arizona, USA](#). Forest Ecology and Management 289:478-488.

Kalies, E.L., and W.W. Covington. 2012. [Small Mammal Community Maintains Stability Through Compensatory Dynamics After Restoration of a Ponderosa Pine Forest](#). Ecosphere 3(9):Article 78, 1-11.

Kurth, V.J., N. Fransioli, P.Z. Fule, S.C. Hart, and C.A. Gehring. 2013. [Stand-replacing Wildfires Alter the Community Structure of Wood-inhabiting Fungi in Southwestern Ponderosa Pine Forests of the USA](#). Fungal Ecology 6:192-204.

McGlone, C.M., M.T. Stoddard, J.D. Springer, M.L Daniels, P.Z. Fulé and W.W. Covington. 2012. [Nonnative Species Influence Vegetative Response to Ecological Restoration: Two Forests with Divergent Restoration Outcomes](#). Forest Ecology and Management 285:195-203.

Ramstead, K.M., J. A. Allen, and A.E. Springer. 2012. [Have wet meadow restoration projects in the Southwestern U.S. been effective in restoring geomorphology, hydrology, soils, and plant species composition?](#) Environmental Evidence 1:11.

Springer, J.D., P.Z. Fulé, and D.W. Huffman. 2012. [Long-term Responses of Penstemon clutei \(Sunset Crater Beardtongue\) to Root Trenching and Prescribed Fire: Clues for Population Persistence](#). Calochortiana 1:164-171.

Springer, J.D., M.T. Stoddard, D.C. Laughlin, D.L. Crisp, and B.G. Phillips. 2012. [Ecology of Rusby's Milkvetch \(Astragalus rusbyi\), a Rare Endemic of Northern Arizona Ponderosa Pine Forests](#). Calochortiana 1:157-163.

Wu, T. and Y.-S. Kim. 2013. [Pricing ecosystem resilience in frequent-fire ponderosa pine forests](#). Forest Policy and Economics 27: 8-12.

*For more articles, please visit: <http://library.eri.nau.edu>*

## NEWS FROM THE FIELD

### AGENCY OUTREACH

The [Agency Outreach Team](#) helps land managers and practitioners with project planning by providing approaches based on best available scientific research and years of practical experience in forestry. The team, which consists of U.S. Forest Service retirees, uses ERI publications, external research materials and localized field data to assist practitioners in determining a project area's historical range of variation and to provide best science support for ecological restoration prescription design and development.

The Outreach Team also works with practitioners to identify and assess research needs surrounding the restoration of overstocked forests, fuels management, restoration of understory plants, and soil management. To help answer these needs, the team works with ERI staff to synthesize important research papers into usable summaries, such as [Desired Conditions \(DC\) Fact Sheets](#), or to develop long-term research projects. The team also works with ERI colleagues to produce [ERI Working Papers](#), which bring together information about restoration topics.

#### Selected Past Projects:

- Santa Fe National Forest: [Southwest Jemez Mountains CFLR Project HRV \(Reference Conditions\) Assessment Report](#).
- Apache-Sitgreaves National Forest: [Summary of Timber Mesa – Vernon WUI Field Work](#) (Rapid Assessment), [Summary Report for Beaver Creek Project](#) (Rapid Assessment).
- Kaibab National Forest: [Photo Comparisons between the Implementation of the USDA-Forest Service Goshawk Guidelines and ERI Strict Sense Restoration](#).



- Coconino National Forest: [Summary Report for Clints Well Restoration Project, Flagstaff Pulliam Airport Fuels Reduction Project, Bald Mesa Demonstration Project – Long Term Study](#).

For more information on agency outreach, contact: [Mark Sensibaugh](#) – Outreach Program

## SUMMER FIELDWORK

ERI field crews will be keeping busy this summer collecting ecological data across the southern portion of the Colorado Plateau. Field work will focus on the 5-year post-treatment remeasurement of two sites within the ERI's Long-term Ecological Assessment and Restoration Network ([LEARN](#)).

[The Mineral project](#), located in the Apache-Sitgreaves National Forest in Arizona, is nested within the largest contiguous ponderosa pine forest in the world. The project spans an elevation gradient from the pinyon-juniper ecotone to the dry mixed-conifer ecotone.

The [Lower Middle Mountain project](#), located in the San Juan National Forest in southwestern Colorado, is situated in a warm-dry mixed-conifer forest. Mixed-conifer forests have suffered many of the same effects from heavy resource extraction and fire exclusion as ponderosa pine ecosystems, including increased tree density and increased susceptibility to stand-replacing crown fires and insect outbreaks.

Staff and students will be collecting overstory, surface fuel, and regeneration data at both sites, and understory and fire history data at the Mineral site. Long-term monitoring data from both projects will contribute to LEARN and will provide insight into whether restoration treatments increase ecosystem resilience to increasing high-intensity crown fire in conjunction with a changing climate.

For more information, contact: [Mike Stoddard](#) – 928.523.5910, or [John Paul Roccaforte](#) – 928.523.7229



Mineral site: Plot AS-EB2-2-19 prior to treatment in 2002



Mineral site: Plot AS-EB2-2-19 one year after thinning and burning in 2009



Lower Middle Mountain site: Prescribed surface fire was implemented as part of the full restoration treatment at the Lower Middle Mountain site.



Lower Middle Mountain site: Open forest structure and abundant understory plant cover one year following a restoration treatment.

## PARTNERS



### Spotlight: National Forest Foundation

<http://www.nationalforests.org>

The [National Forest Foundation](http://www.nationalforests.org) (NFF) is the congressionally chartered nonprofit partner of the U.S. Forest Service. The mission of the NFF is to engage Americans in community-based and national programs that promote the health and public enjoyment of the 193-million-acre National Forest System, and administer private gifts of funds and land for the benefit of the National Forests.

The NFF works in close collaboration with local people and communities in order to help communities play a leading role in determining the future of our National Forests and Grasslands. The NFF works with a diverse mix of partners, including state and federal agencies, non-profit organizations, businesses, research and academic institutes, and thousands of individual volunteers, to leverage public and private resources to maximize conservation impact. NFF's [Conservation Connect](#) learning network for collaboration offers coaching, best practices and peer learning opportunities to community-based groups and Forest Service employees involved in collaborative stewardship on National Forest System lands.

NFF and ERI have successfully partnered on several projects, including the recently released sourcebook for collaborative resource management groups, "[Closing the Feedback Loop: Evaluation and Adaptation in Collaborative Resource Management](#)." ERI and NFF also work together to develop and promote the Collaborative Forest Landscape Restoration Program Monitoring Network and jointly offer [peer learning sessions](#) about landscape monitoring questions and approaches.