

Great Plains Fire Science Exchange

A JFSP KNOWLEDGE EXCHANGE CONSORTIUM



The Lek
A Great Plains newsletter.
June 2012

Upcoming activities

- 2013 SRM meeting in OKC. Join us for a workshop after the plenary session.
- Patch Burn Grazing Working Group annual meeting August 28-29 at Camp Wood, Elmdale, KS.
- Fire and GIS November 16-19 (http://www.washingtoninstitute.net/GPS-GIS_course.php)
- Fuels analysis course December 15-18 (<http://www.washingtoninstitute.net/fatreg.php>)
- Interpreting and Measuring Indicators of Rangeland Health July 17-20, 2012: Belle Fourche, SD.
- Send us your activity to share!

Inside this issue:

GP Fire Science	1
Meet the Board	1
Newsworthy science	2
Organization Spotlight: Patch Burn Grazing Working group	2
Invasive species: Eastern Redcedar	2
FEIS: a source for Information	3
Americore helps with Rx burns in ND	3
New fire DVD available	4

Great Plains Kicks Off Knowledge Exchange Consortium

The Great Plains joined the cadre of Fire Science Consortia in January. Since then we've been making plans and working to inform you of hot off the press fire science.

The consortia was proposed in 2010 and was granted funds to develop a full proposal. As part of that effort, we polled you to find out what the information needs of the region were. That information helped us to gain approval for the final proposal. The consortium will be evaluated in two years, to determine whether a funding renewal will be granted.

As part of a science based organization, we recognize the value in collecting data to tell us how we are doing. To evaluate our progress, in addition to keeping track of communications and contacts, we are required to resurvey our constitu-

ents periodically. The data will be used to tailor the products we produce to meet your information needs. Here's some of what we have in mind.

Outreach efforts:

- Facebook page
- Website under construction
- Regional fact sheet development
- Landowner videos
- Presentations targeted to extension agents.
- Workshops
- Network of demonstration sites.

Volume 1, Issue 1

Have something to share in *The Lek*? Send your Events and Articles to:

GPFireScience@missouristate.edu



Send us a story to share with the consortium! Do you use fire in the growing season? Tell us about it on Facebook!

Great Plains Fire Science Exchange Board

Oversight and technical expertise are provided to the consortium through the Board of Directors (BOD) and Technical Committee (TC). The BOD is tasked with overseeing activities and providing direction. The TC is responsible for contributing to the consortium projects.

Participation in the Board is voluntary and terms last for two years. The GPFSE board of governors includes members

from throughout the region and they possess from a variety of expertise and represent many organizations.

A great deal of thanks to those agreeing to serve the first term. Our next step will be to derive a set of bylaws for the consortium. The meeting time is yet to be determined.

Exchange Principle investigators: Sherry Leis, Mike DeBacker, Tom Bragg.

Board of Directors:

Sherry Leis, Mike DeBacker, John Weir, Susanne Hickey, Bill Waln, and James Stubbendieck

Technical Committee:

Carol Blocksome, Tom Bragg, Amy Symstad, Charles Taylor, Reggie Blackwell, Al Steuter.

Newsorthy

Burn Associations: Prescribed burn associations (PBA) work to increase the amount of fire being applied to achieve land management goals in Texas, Oklahoma, Nebraska, and North Dakota. A recent article in *Rangelands* describes the development of the program in Texas. Prescribed burn associations provide peer support through sharing experience and resources. Some PBA are even eligible for reduced rate liability insurance policies. A survey designed to understand the benefits of these groups found that landowners in PBAs were more confident using fire and

were less concerned about having the appropriate resources than non association fire users.

Read more:

Toledo, D, U. Kreuter, M.G. Sorice, and C. A. Taylor, Jr. 2012. To burn or not to burn: ecological restoration, liability concerns, and the role of prescribed burning associations. *Rangelands* April 2012: 89-23.

<http://www.srmjournals.org/doi/pdf/10.2111/RANGELANDS-D-11-00037.1>

Crawfish Frogs: A study on Crawfish frogs in Indiana found

differences in behavior between post-burn and unburned areas. The animals in the post-burn areas stayed in or on their burrows longer and emerged later in the day than those in unburned areas. The authors concluded that despite these differences, burning was not detrimental to the frogs.

Read more:

Engbrecht, N.J. , M.J. Lannooread. 2012. Frog Behavioral Differences in Post-burned and vegetated grasslands. *Fire Ecology* 8: 63-76.

<http://fireecology.org/journal/abstract/?abstract=156>



Crawfish Frogs (*Lithobates areolatus*) are interesting animals of conservation concern present in much of the Great Plains.

Wikipedia photo.

Organization Spotlight: Patch Burn Grazing Working Group

The Patch Burn Grazing Working Group (PBGWG) was formed in 2005 in an effort to improve our understanding of the synergistic processes of fire and grazing. The founding members agreed on objectives and a research agenda, and has met annually to share their findings .

Patch Burn Grazing , aka pyric herbivory, describes the proc-

ess whereby fire and grazing interact. Grazers prefer recently burned forage and avoid areas that have not been burned. This process has been described in grasslands across the world with many different animals.

The research priorities outlined by the PBGWG included effects on conservative plants, grassland birds and insects, economic implications, and

whether PBG functions in non-native pastures.

The PBGWG annual meetings provide an opportunity to share results and experience with the grassland community. Annual meetings include researchers, landowners, land managers, and extension agents. To join the listserve or get meeting details, email GPFireScience.



Join us for the annual Patch Burn Grazing Working Group meeting and field tour August 28-29 in the Flint Hills of Kansas . Photo by Sherry Leis

Spotlight on Invasive Species: Eastern Redcedar

Eastern Redcedar (ER) is native to much of the Great Plains. We think that historically this tree was prominent along bluffs and places where fire could not access it. In more recent times, we find this tree expanding into grasslands and glades where fire once kept it in check.

ER has some positive attributes in that it makes great wind-

breaks, and as an evergreen, it is an aesthetically pleasing contrast to the brown grasses during winter. The cones also have wildlife value for a small number of species.

Expansion of this species has some negative consequences, however. ER is a water hog. Proliferation of this plant can actually reduce groundwater

and streams. Expansion of ER into grasslands and glades reduces native species richness as well as available forage for wildlife and livestock. For more information, see fact sheets by Oklahoma Cooperative Extension Services: F2876 and NREM 2884. If you would like a copy of a forage calculator to calculate the effects of ER, email GPFireScience.



Eastern Redcedar is easily killed by fire under 1 m tall. Trees >2 m tall often require mechanical treatments for removal.

Photo by John Weir.

<http://www.fs.fed.us/database/feis/>

FEIS summarizes and synthesizes research about living organisms in the United States—their biology, ecology, and relationship to fire.



Maple 5, an AmeriCorps burn team learns about grassland fire ecology in North Dakota.

Need information: FEIS (Fire Effects Information System) Is Easy to Use

The Fire Effects Information System is a clearinghouse of summarized easy to use fire effects information. There are links to regional summaries as well as species specific information. The cover fire effects on a wide range of flora

(including a special section on invasive species), fauna, soils, and air.

The species descriptions include basic biology, distributions as well as information on how the species will respond to fire. Citations are also avail-

able resources. There is even a tutorial to get you started!

The website is easy to use and kept up-to-date.

<http://www.fs.fed.us/database/feis/>

Fire Effects Information System

SPECIES: *Bromus inermis*

- [Introductory](#)
- [Distribution and Occurrence](#)
- [Management Considerations](#)
- [Botanical and Ecological Characteristics](#)
- [Fire Ecology](#)
- [Fire Effects](#)
- [References](#)

Index of Species Information

Left:

Sample introductory outline for Smooth brome (*Bromus inermis*).

AmeriCorps NCCC Crew Ignites Fire for Science by Justine Miller and Colleen Breslin

In North Dakota, 80 percent of native prairie grass is gone, but there is a community of professionals and youth at the beginning of their careers working to protect the remaining 20%. Eleven AmeriCorps NCCC (National Community Civilian Corps) members from Vinton, Iowa traveled to J. Clark Salyer National Wildlife Refuge in Upham, ND to participate in prescribed burns in the Western North Dakota Fire District. AmeriCorps NCCC is a full-time, team based, 10-month national service program where mem-

bers work on projects addressing critical needs.

The fire team, Maple 5, went to Upham with some previous prescribed fire experience. They also brought a burning desire to continue their education and skills to help restore native prairie life in North Dakota. For Maple 5, learning about fire as a tool became the most beneficial aspect of their work. According to the National Park Service Inventory and Monitoring Program, prescribed fires serve to maintain grasslands by controlling tree

invasion, recycling nutrients, and stimulating plant reproduction. Maple 5 learned that without the use of fire as a tool, native grasslands could disappear. As a group of novice, young firefighters, NCCC members have become inspired to continue to burn and learn more about the importance of re-growth, both on the fireline and in life.



Maple 5 learns about pumper truck operations.

Great Plains Fire Science Exchange

Missouri State University-Biology Department
901 S. National Ave.
Springfield, MO 65897

Phone: 417-836-8919
E-mail: GPFireScience@missouristate.edu
Website coming soon: GPFireScience.org

Research supporting sound decisions.



Our mission is to build a stronger fire community in the Great Plains through increased communication and access to information resources. Researchers, managers, land owners, and practitioners who work with fire are welcome.

The need for fire science in managing the Great Plains is great. Our goal is to support those who need fire information by connecting them to those who can and have produced the science. We also hope to facilitate the sharing of the vast amount of experience the Great Plains fire community has to offer.



www.Facebook.com/GPFireScience

Coming soon:

GPFireScience.org

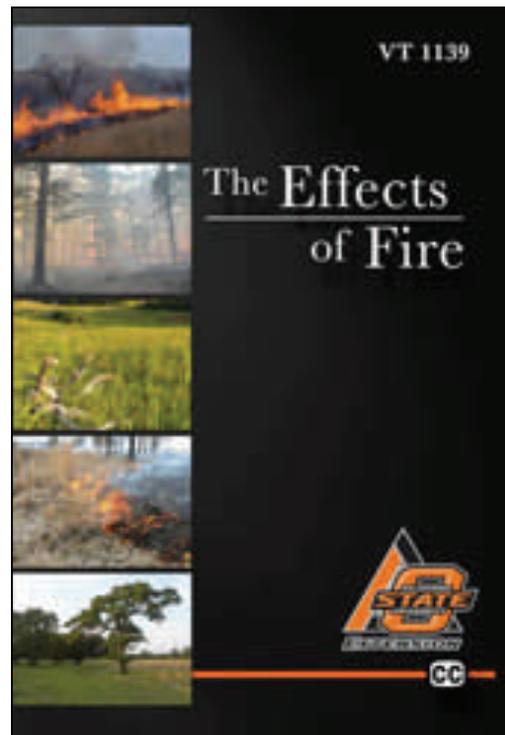
New Fire DVD Available

Announcing: a new video titled The Effects of Fire (VT-1139). The video collection covers the effects of fire in grasslands, shrublands, and forests.

Here's a sampling of the topics covered: biology and control of Eastern Redcedar, growing season burning, fire myths, prescriptions, burn timing, using fire to promote heterogeneity, post wildfire treatments, and much more.

This collection of videos compliments many of OSU's existing fact sheets.

The video is available on the NREM Marketplace website https://secure.touchnet.com/C20271_ustores/web/store_main.jsp?STOREID=49 or for more information contact John Weir john.weir@okstate.edu.



Dust jacket for a new collection of informative videos from Oklahoma State University available on DVD.