

Oak Woodlands & Forests Fire Consortium

A JESP Knowledge Exchange Consortium



Ignis

Newsletter of the Oak Woodlands and Forests Fire Consortium

Volume 1, Issue 2
July, 2012

INSIDE THIS ISSUE

DROUGHT IMPLICATIONS	1
RESEARCH HIGHLIGHT	2
WORKSHOP	2
YOUR IDEAS!	3
TUNE IN	4
UPCOMING EVENTS	4

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Our Mission:

To provide fire science to resource managers, land-owners, and the public about the use application and effects of fire within the region



Special points of interest:

- Visit Oakfirescience.com
- [Find us on Facebook](#)
- [Follow us on Twitter](#)



Implications of Severe, Regional and Prolonged Drought

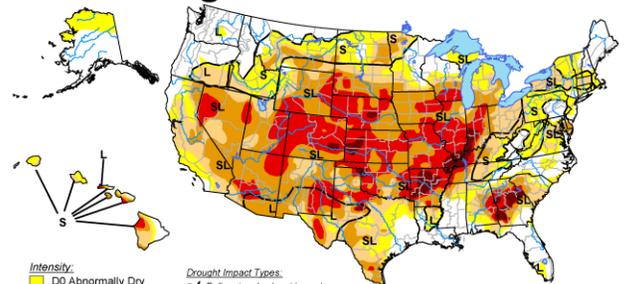
Compared to recent decades this summer has been unusual across our region. Although drought conditions in Texas are much improved this summer, the extent and severity of the drought conditions in the central and northern part of our region are currently comparable to droughts of the 1980s or earlier. Will the drought conditions last for multiple years as was experienced in the 1950s or 30s? Certainly this drought significantly affects the fire environment and is within the range of known past drought variability.

According to the [National Drought Mitigation Center](#) 53.44 % of the country was identified as being under moderate or worse drought conditions. As of July 24th the area of the U.S. under severe or worse drought conditions fell out as: 38.11% - Severe or worse, 17.20% extreme or worse, and 1.99% exceptional or worse (for links to drought information see page 4).

The current drought conditions have direct effects on present wildfire potential across our region. As Texas experienced this past winter and spring, drought conditions are slow to change and lag effects could influence wildfire occurrences in future months and the ability to conduct prescribed burns. 2012 wildfire acreages and occurrences within drought areas are likely to be above average for much of the region. As can be read in the "Research Highlight" section of this newsletter, eastern oak ecosystems usually face ecological concerns regarding the *lack* of fire, rather than the risk of wildfire during the usually humid summer.

U.S. Drought Monitor

July 24, 2012
Valid 7 a.m. EDT



Intensity:
D0 Abnormally Dry
D1 Drought - Moderate
D2 Drought - Severe
D3 Drought - Extreme
D4 Drought - Exceptional

Drought Impact Types:
✓ Delineates dominant impacts
S = Short-Term, typically <6 months
(e.g. agriculture, grasslands)
L = Long-Term, typically >6 months
(e.g. hydrology, ecology)

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

<http://droughtmonitor.unl.edu/>



Released Thursday, July 26, 2012
Author: Richard Heim, NOAA/NESDIS/NCDC

U.S. Drought Monitor map indicating drought severity across the U.S. as of July 24, 2012. Map was

It is difficult not to wonder about the potential implications of the ensuing drought such as: How will the drought affect prescribed fire use? What planning is needed to prepare for fire conditions during a more prolonged (3-10 yr) drought? How might management goals regarding fire effects be altered considering the likely added effects of drought (e.g., drought-induced mortality or susceptibility).

During prolonged droughts fire practitioners could have a wider window in which prescribed fire application is possible. Similarly, areas that rarely burn or burn in patches may more readily carry fire. During a prolonged drought it is conceivable that fire perspectives could shift more from an 'ecological services' or 'restoration-based' perspective to a 'protection-based' perspective in which efforts regarding fire will be focused more towards reducing hazardous fuels and minimizing fire risk.

Moving fire forward...



RESEARCH HIGHLIGHT:

Prescribing Fire in Eastern Oak Forests: Is Time Running Out? (Northern Journal Applied Forestry 22(3): 190-196. 2005)

Marc Abrams (School and Natural Resources, Pennsylvania State University) describes eastern U.S. oak forests as having undergone dramatic changes in structure and composition due to severe changes in disturbance regimes following European settlement. Citing studies which utilize lake and bog sediment cores, fire scars, and witness tree descriptions from early land surveys Abrams reports that many eastern U.S. forests have changed from a pre-European settlement fire-dependent oak (*Quercus*) forest type to a mixed-mesophytic fire-excluding forest type.

Abrams suggests that the oak forests that settlers and early land surveyors encountered in the eastern U.S. were largely the product of American Indian burning practices. Later successional mixed-mesophytic species such as red maple, sugar maple, birch, beech, and black gum were held at bay to fire sheltered moist alcoves by periodic understory burning. Forest disturbances brought on by European settlement including extensive selective logging and associated devastating wildfires, chestnut blight, and subsequent fire suppression have allowed mixed-mesophytic species to advance and eventually dominate the landscape (excluding the more xeric southwest corner of the eastern deciduous forest (EDF). The foliage of these species contain much less lignin than oak leaves and quickly decompose, rendering a much less flammable environment. Adding to these disturbance shifts is high deer population with intensive browsing that suppress oak recruitment even more, thus further reducing flammable oak leaf litter. Changes in forest composition and structure have resulted in a feedback loop creating a landscape that is less and less likely to carry fire. Abrams notes that this is in stark contrast to fire suppression effects in dry coniferous western U.S. forests where stand density and species composition changes have resulted in forests being more prone to fires. Abrams warns that land managers in the eastern U.S. wanting to utilize prescribed burning as a restoration tool are facing a closing window of opportunity (see also "The Demise of Fire and "Mesophication" of Forests in the Eastern United States", by Gregory Nowacki and Marc Abrams (2008) for more on this warning).

The findings of this study highlight two unique traits regarding prescribed fire use in eastern U.S. oak woodlands and forests:

- 1) Due to fire suppression many eastern oak ecosystems face the threat of becoming less flammable, less diverse, and less resilient habitats for people and wildlife, and
- 2) Human ignitions were critical to the existence of historically frequent fire regimes and perpetuation of oak in the EDF.

WORKSHOP: Prescribed Fire and Timber Quality Workshop

Come join us for our first workshop October 16-17, 2012 in Poplar Bluff, MO. The workshop will focus on the relationships between prescribed fire and timber quality. This workshop will provide opportunities for scientists and managers to learn and discuss the details of this emerging topic.

Presentations and a fieldtrip will address questions related to timber quality such as: How does wood decay following injury? When might fire be appropriately applied to oak stands? What are the varied perspectives on burning in forests? How does fire affect timber products?



For more information please visit our website: oakfirescience.com



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WE WANT YOUR IDEAS!!!

Do you have an idea for a fire-related workshop?

What about an emerging topic in fire science literature that you think we should synthesize ?

Our mission is to facilitate the transfer of fire science information, and we want your input to make this successful. Through support from the Joint Fire Science Program we can help make your idea a reality. Stay tuned...we will be announcing an implementation and support request process on our website in the next few weeks.

DON'T WAIT !

Send any ideas for fire science information transfer to us today at oakfirescience@gmail.com

The Oak Woodlands & Forests Fire Consortium

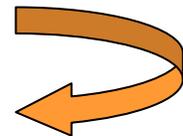
In January 2012 the Joint Fire Science Program approved funding for the Oak Woodlands and Forests Fire Consortium. The purpose of this consortium is to promote the dissemination of fire information and to establish partnerships among fire professionals. The overall goal of the consortium is to enable researchers and managers to share their experiences studying and managing fire. The Oak Woodlands and Forests Fire Consortium will focus on prescribed and wildfire fire information with an emphasis on hot topics concerning oak and oak-pine communities of the Central U.S. such as woodlands, forests, savannas, glades, prairies, and barrens. The consortium will utilize a website, social media (Twitter and Facebook), publications, meetings and conferences, and field trips to promote fire science delivery and outreach.



Region served by the Oak Woodlands and Forests Fire Consortium.

Tune in to Our Vimeo Channel

Did you know that we have a video channel? Video is a powerful media for sharing information and we are trying it out. When we attend or host workshops we try to capture and archive as many presentations as possible. We store them on our Vimeo channel so that you can watch them later. Click below to tune in



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UPCOMING EVENTS

See our [calendar](#) at [oakfirescience.com](#) for a full schedule of upcoming events.

August 15: Arkansas Prescribed Fire Council Annual Meeting

Camp Robinson Military Base, North Little Rock, AR

Contact: Martin Blaney Mblaney@agfc.state.ar.us

September 5-6: Woodland and Savanna Management Workshop

Crossville, TN, Contact: Brenda Carr Brenda.kay.carr@tn.gov

September 10, 1pm CST: Webinar

"Prescribed fires pave the way for improved regeneration in canopy gaps" by Todd Hutchinson, Research Ecologist USFS Northern Research Station, Attend at: <http://www.oakfirescience.com/webinars/>

September 12: Managing Ohio Woodlands: The challenges of *Ailanthus* Workshop and Field Tour

Field tour of USFS *Ailanthus*/prescribed fire research project, Chillicothe, OH

Contact: Joanne Rebbeck jrebbeck@fs.fed.us

September 17-18: Kentucky Prescribed Fire Council Annual Mtg.

Greenville, KY, Contact: Elizabeth Bunzendahl eibunzendahl@fs.fed.us

October 12-25: Capital Area Interagency Wildfire & Incident Management Academy, Camp Swift National Guard Facility - Bastrop, Texas, <http://ticc.tamu.edu/Training/training.htm>

October 16-17: Prescribed Fire / Timber Quality Workshop

Includes a field tour, Poplar Bluff, MO,

Details at: <http://www.oakfirescience.com/workshops/>

November 2-4: Texas Society for Ecological Restoration, Annual Conference, Details at: <http://txser.org/>

December 3-6: 5th International Fire Ecology and Management Congress, Portland, OR, Details at: afirecongress.org

February 4-7: 2013, Society of Range Management Annual Mtg Oklahoma City, OK, Details at: http://www.rangelands.org/events/events_annualmeetings.shtml

Please contribute your event announcements. Send information to:
oakfirescience@gmail.com

Regional Drought Resources

Arkansas:

[University of Arkansas Drought Resources](#)

[Arkansas State Climatologist](#)

Illinois:

[Illinois State Water Survey](#)

[Illinois State Climatologist Office](#)

Indiana:

[Purdue Extension Drought Resources](#)

[Indiana State Climatologist Office](#)

Kentucky:

[Kentucky Climate Center](#)

[Kentucky Drought Resources](#)

Missouri:

[Missouri DNR Water Resources Center](#)

[Missouri Climate Center](#)

Oklahoma:

[Oklahoma Water Resources Board](#)

[Oklahoma Climatological Survey](#)

Tennessee:

[Tennessee Division of Water Resources](#)

[Tennessee Climatological Survey](#)

Texas:

[Texas Drought and Water Resources](#)

[Texas State Climatologist](#)

National:

[USDA Water Quality Information Center](#)

[National Integrated Drought Information System](#)

[National Drought Mitigation Center](#)

[North American Drought Monitor](#)

[USGS Water Resources](#)

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