CAFMS Newsletter

July 2, 2013 **Volume 3 Issue 2**

Remembering 19 heroes

A Meta-Analysis of the Fire-Oak Hypothesis: Does Prescribed Burning Promote Oak Reproduction in Eastern North America?

Patrick H. Brose, Daniel C. Dey, Ross J. Phillips, and Thomas A. Waldrop

Abstract: The fire-oak hypothesis asserts that the current lack of fire is a reason behind the widespread oak (*Quercus* spp.) regeneration difficulties of eastern North America, and use of prescribed burning can help solve this problem. We performed a meta-analysis on the data from 32 prescribed fire studies conducted in mixed-oak forests to test whether they supported the latter assertion. Overall, the results suggested that prescribed fire can contribute to sustaining oak forests in some situations, and we identified several factors key to its successful use. Prescribed fire reduced midstory stem density, although this reduction was concentrated in the smaller-diameter stems. Prescribed fire preferentially selected for oak reproduction and against mesophytic hardwood reproduction, but this difference did not translate to an increase in the relative abundance of oak in the advance regeneration pool. Fire equalized the height growth rates of the two species groups. Establishment of new oak seedlings tended to be greater in burned areas than in unburned areas. Generally, prescribed burning provided the most benefit to oak reproduction when the fires occurred during the growing season and several years after a substantial reduction in overstory density. Single fires conducted in closed-canopy stands had little impact in the short term, but multiple burns eventually did benefit oaks in the long term, especially when followed by a canopy disturbance. Finally, we identify several future research needs from our review and synthesis of the fire-oak literature. FOR. SCI. 59(3):322–334.

Keywords: fire effects, hardwoods, prescribed fire, *Quercus* spp., shelterwood

To view the entire article go to: www.CAFMS.org

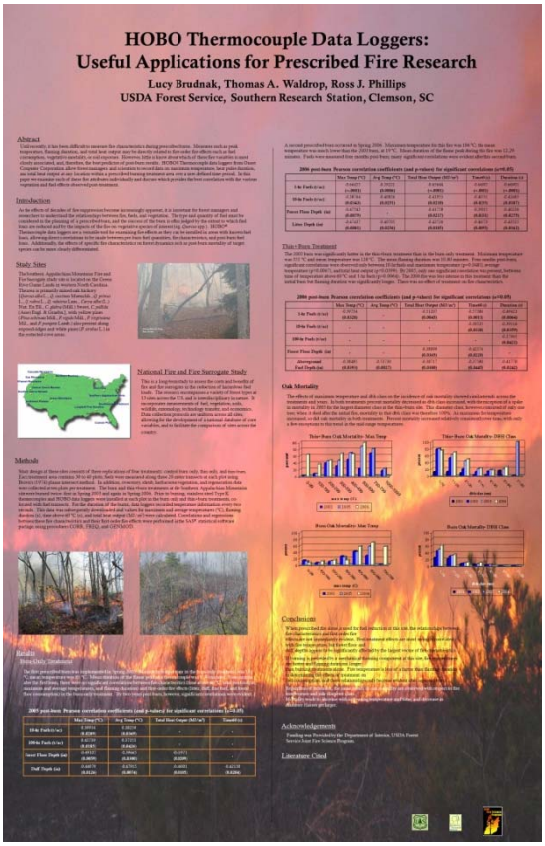
2013 OCT. 8, 9 AND 10
WILDLAND FIRE IN THE APPALACHIANS:
DISCUSSIONS AMONG MANAGERS AND SCIENTISTS

Posters Will Be Accepted Until Space is Full

The Consortium of Appalachian Fire Managers and Scientists along with the Association for Fire Ecology is hosting a conference October 8-10, 2013 in Roanoke Virginia. Over 40 invited speakers will discuss topics of concern to managers and researchers dealing with wildland fire in the Appalachian Mountains. Speakers will engage problems and solutions of manager/researcher communication and expectations. There will be no openings for volunteer oral presentations.

The program committee is requesting abstracts for posters on any topic related to wildland fire in the Appalachian region. Poster topics can be based on completed or ongoing research or they can describe management experiences. Abstract submissions will be judged by the Program Committee and notification of acceptance will be in mid-July. Space for posters is very limited. Authors will be asked to be present at their poster at a specified time for audience questions. A full length paper or extended abstract will be printed in the conference proceedings.

Please submit as abstract describing the work to be shown on your poster. Abstracts can be submitted online at http://appfireconference.org/. Please carefully follow the instructions on the web page. Accepted abstracts will be printed in the conference program.


HOBO Thermocouple Data Loggers:
Useful Applications for Prescribed Fire Research
Lucy Brudnak, Thomas A. Waldrop, Ross J. Phillips
USDA Forest Service, Southern Research Station, Clemson, SC

Early Bird Conference Pricing Until July 9

Joint Fire Science Program Potential Topics for Fiscal Year 2014 Funding.

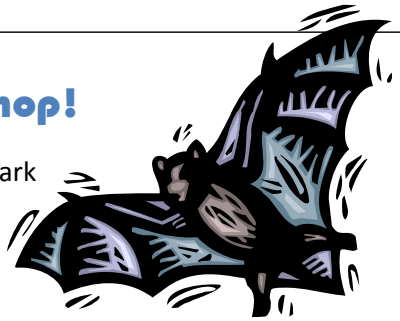
Potential topics respond to the three goals of the National Cohesive Wildland Fire Management Strategy:

1. **Restore and Maintain Resilient Landscapes**
   a. Fuels and treatment effectiveness across landscapes
   b. Fire and fuels treatments effects on sensitive bats
   c. Wildfire effects on water supplies
   d. Re-measurement – long term effects on vegetation, fuels and soil
2. **Create fire –adapted communities**
   a. Smoke emissions contributing to secondary organic aerosols
   b. Wildland fire impacts on large population centers
3. **Safe and effective wildfire response**
   a. Influence of past wildfires on wildfire management strategies and costs
4. **Responds to multiple goals**
   a. New science initiative – social science
   b. Graduate Research Innovation (GRIN)
   c. Fire Science Exchange – Washington DC, Mid-Atlantic and Northeast

Save the Date! Another Bat workshop!

April 30 – May 1 of 2014 at Mammoth Cave National Park

More details soon



Communicate With Us!

Find us on twitter @APfirescience or find us on Facebook by searching Consortium of Appalachian Fire Managers and Scientists.

Join CAFMS:

The consortium is for all land managers and researchers in the region who deal with any aspect of fire. To join, simply provide us with some contact information at the web site listed below.

https://spreadsheets.google.com/viewform?formkey=dDNiUnFrYzNNVU00dkxka1hKM2p0cFE6MQ

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