



FIRE LINES

A Bimonthly Newsletter of the Southern Fire Exchange

February 2018
Volume 8- Issue 1

IN THIS ISSUE

- Do fuel treatment costs affect wild- 1
fire suppression costs and property
damage?
- Upcoming Events 2
- Workshops & Conferences
- Trainings & Webinars
- AFE Fire Ecology Conference Recap
- Videos from the Upland Ecosystem 3
Groundcover Restoration
Symposium
- Duff Fire Science Workshop
Presentations Online
- RX Fire-101 Webinar Recording
- Podcast: Fire Learning Trail in the
Appalachians
- NWCG Report on Wildfire Fatalities
- Factsheets on Home Ignition
Science from IBHS
- Fire Education & Outreach
Resources
- PFC Presentations 4
- IFTDSS Training Videos Online
- New Issues of Fire Ecology Journal
- New Videos on RX Fire Equipment
- Funding Available for Wildfire
Preparedness day
- Technology & Tool Updates

CONTACT INFORMATION

For questions and feedback, email
contactus@southernfireexchange.org

Exchange Leads

Alan Long (Director, PI)
Rae Crandall (Co-PI)
Joseph O'Brien (Co-PI)
Kevin Robertson (Co-PI)
Joe Roise (Co-PI)

Exchange Staff

David Godwin (Program Coordinator)
Chet Buell (IT Specialist)
Leslie Bobby (Outreach Specialist)

Learn more about our Partners and the
JFSP Fire Science Exchange Network.

Visit the SFE Resource Center

www.southernfireexchange.org



Do fuel treatment costs affect wildfire suppression costs and property damage?

Answers to this question are of nation-wide interest, especially with respect to prescribed fire and mechanical fuel treatments. A general assumption in the fire management community has been that areas treated to reduce fuels will be less likely to experience catastrophic burns, and if they do burn, the fires will be easier and cheaper to suppress with less damage to property. The Joint Fire Science Program (JFSP) has funded a number of projects that address this important question and answers are beginning to emerge. We will briefly summarize key findings from some of the final reports here; a new SFE fact sheet will provide a more detailed summary soon.

In a national study of wildfires larger than 300 acres on national forests (excluding Hawaii and Alaska), Gonzalez-Caban and others (https://www.firescience.gov/projects/14-5-01-12/project/14-5-01-12_final_report.pdf) found no clear relationship between the number of acres of fuel treatment within wildfire perimeters and total per acre suppression costs (over a five year period). Several possible explanations emerged: in some wildfires, the treatments may have reduced suppression costs while in others it increased suppression costs effectively eliminating any overall relationship between fuel treatments and wildfire suppression costs. One possible explanation for higher per acre suppression costs in areas treated for fuel reduction is that those areas were considered safer for suppression efforts and therefore more firefighters and suppression resources were committed to them, increasing per acre suppression costs. Finally, the authors suggested that there were perhaps too few fuel-treated acres within wildfires at this point to statistically detect fuel treatment effects on suppression costs.



While there were no overall net changes in suppression costs following fuel reduction treatment (except for mechanical fuel treatments in California), the researchers also found that the number of treated acres in the wildfire area were correlated with reduced damage to structures and houses. The treatments likely made it possible for firefighters to enter an area and save houses and structures that previously would have been lost; this is one direct economic benefit resulting from fuel reduction treatments. The South was one of the regions where significant reductions in property damage were observed in areas that had been treated with prescribed fire.

This study also provided models for evaluating wildfire suppression and fuel treatment costs that should be valuable for future studies. The results of this study lead to a new hypothesis which posits that although fuel treatments may not provide direct suppression cost-savings, they may “reduce the probability that small fires grow into larger wildfires that are more expensive to control.” Therefore, the cost savings from fuel treatment programs may best be a reduction in the number of large wildfires. While this study was proposed to find direct linkages between fuel treatments and cost-savings in suppression costs, it demonstrated how challenging identifying these relationships can be, a concept which is supported by several related projects that have just been completed.

In another national study, Naughton and Barnett (https://www.firescience.gov/projects/14-5-01-25/project/14-5-01-25_final_report.pdf) evaluated the frequency with which wildfires burn into areas that previously had fuel treatments. In addition, they determined if fuel treatments influenced daily fire management costs. They used a nationwide geospatial analysis of fuel treatments and wildfires that occurred between 1999 and 2013 and found that less than 8% of treated acres were subsequently impacted by a wildfire. The researchers addressed the daily cost question with data from 56 wildfires on federal lands between 2008 and 2012 that overlapped areas with previous fuel treatments. They reported that “days when a fire encounters a fuel treatment or burned area are, on average, positively associated with fire management costs, likely revealing the use of previously treated and burned areas to facilitate suppression operations”, thereby resulting in higher suppression costs for those areas. Interestingly, that relationship was not present in the Southern region of the U.S., where daily management costs decreased substantially when a wildfire encountered a previously burned or treated area.

Association of Fire Ecology Conference Recap

Thank you to everyone who volunteered, presented, contributed and attended the 7th International Fire Ecology and Management Congress in Orlando in November. We were excited to help bring this important conference to the heart of prescribed fire management in Florida and the South. The University of Florida Institute for Food and Agricultural Sciences (UF IFAS) recorded all the opening, closing, and Fire AFEx plenary talks, as well as Special Sessions on prescribed fire science, prescribed burn associations, fire extension and education, the 2017 Appalachian fires and the FireWorks curriculum workshop. All those recordings are now available on the AFE website <https://fireecology.org/2017-Videos>. Thanks also to all who participated and hosted the very successful field trips on Saturday, December 2nd. Check out some photos (<https://flic.kr/s/aHsmb9tjvv>) and a video from the overnight trip to Big Cypress National Preserve (<https://youtu.be/iYttMSpg64M>).



Big Cypress National Preserve field trip participants enjoyed the chance to walk through a cypress dome.

UPCOMING EVENTS

Visit the [SFE Calendar](#) to learn more about upcoming events. To add an event to our calendar, [email us](#) the information.

Prescribed Fire Demonstrations

Thursdays/Fridays Feb., 2018
10am to noon
Crosby Arboretum, Picayune, MS
Observe fire management techniques during a prescribed burn. Call the Arboretum office to register for this activity.

Prescribed Fire Council Meetings

North Florida PFC
Mar. 27, 2018
Chipley, FL

North Carolina PFC
Aug. 2-3, 2018
Asheboro, NC

Workshops and Conferences

Wildland Urban Interface 2018
February 27- March 1, 2018
Reno, NV

2nd Annual National Cohesive Wildland Fire Management Strategy Workshop
March 26-29, 2018
Reno, NV

12th Fire and Forest Meteorology Symposium
May 15-18, 2018
Boise, ID

The Fire Continuum Conference: Preparing for the Future of Wildland Fire
May 21-24, 2018
Missoula, MT

Association of Consulting Foresters Annual Meeting
June 9-12, 2018
Asheville, NC

6th Fire in Eastern Oak Forests Conference
Sept. 18-20, 2018
State College, PA

12th Biennial Longleaf Conference
October 23-26, 2018
Alexandria, LA
Call for Presentations Deadline for abstracts is March 30, 2018

Trainings

Longleaf Academy: Groundcover Restoration 201

April 17-19, 2018
Clemson Extension Center
Aiken, SC

Longleaf Academy: Fire & Longleaf

June 12-14, 2018
Webb Center, Garnett, SC

Longleaf Academy: Longleaf 101

Mar. 20-22, 2018
Waycross, GA

May 8-10, 2018
Lufkin, TX

2018 Virginia Interagency Wildland Fire Academy

May 29- June 2nd, 2018 Longwood University
Farmville, VA

RX Certified Burn Manager Course

Sept. 25-27, 2018
Virginia Dept. of Forestry
\$50 fee, email
sandy.mills@dof.virginia.gov for registration

Prescribed Fire Training Exchange - TREX

Spanish Language TREX
Santa Fe, NM

Oct. 15- Nov. 2, 2018 Applications due: Apr. 2, 2018

Southern Blue Ridge TREX

Oct. 19- Nov. 9, 2018
Save the Date!

Webinars

Advanced Fire Environment Learning Unit

Fire Season Primer 2018 Webinar Feb. 28, 2018

12-2:00 pm ET

Target Audience:

Fire Behavior & Fire Weather Specialists including Fire Behavior Analysts, Long-term Analysts, Geospatial Analysts, fire behavior Technical Specialists, IMET, and Predictive Services personnel

Adaptive Silviculture for Climate Change: A Scientist-Manager National Network

Mar. 1, 2018

3:00 pm ET

This webinar has a national focus, but refers to different regions of the United States including the South.



The Southern Fire Exchange is funded through the Joint Fire Science Program, in agreement with the United States Forest Service, Southern Research Station. This institution is an equal opportunity provider.

Upland Ecosystem Groundcover Restoration Symposium- Videos Online




All of the videos are now online from the presentations at the Southern Fire Exchange and The Nature Conservancy (TNC) symposium held in October at the TNC's Appalachian Bluffs and Ravines preserve. Dr. Monica Rother (Tall Timbers Research Station), Dr. Joan Walker (U.S. Forest Service), Brian Pelc (TNC), and Mike Jenkins (Florida Forest Service) gave presentations on cutting-edge research and management related to restoration of ground cover in upland pine ecosystems.

Find them [here](#).



The workshop field trip visited a longleaf pine ecosystem restoration site at nearby Torreya State Park

Duff Fire Science Workshop Presentations Online

- 1  **Advances in Understanding Duff Fires in Longleaf Pine Forests**
Southern Fire Exchange
- 2  **Fire Management Lessons Learned when Burning Duff**
Southern Fire Exchange
- 3  **Using a Duff Moisture Meter to Save Trees - Are Conditions Right?**
Southern Fire Exchange

Did you miss the SFE Duff Fire Science Workshop held in October?

Check out the presentation recordings from the morning [here](#).

RX Fire-101 Webinar Recording Available

In early December the Southern Fire Exchange delivered a 1.5 hour prescribed Fire-101 webinar in partnership with the Southeast Prescribed Fire and Air Quality Workgroup. The webinar introduced members of the air quality management and regulatory community to the prescribed fire planning and implementation process. This presentation is a great overview of prescribed burning for anyone new to the art, science, and practice of fire management. Check out the recording [here](#).



Podcast: Fire learning trail in the Appalachians

Take an audio tour through the Appalachian mountains in the "fire learning trail," audio files where fire managers and scientists discuss the role and history of fire in the mountains.

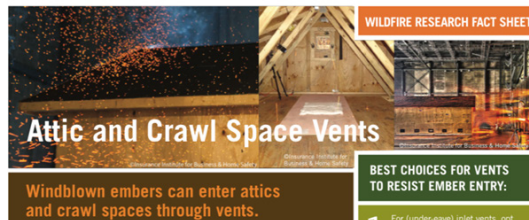
New NWCG report on Wildland Firefighter Fatalities in the US- 2007-2016

The latest **report** from NWCG assesses trends and common factors in wildland fire fatalities over the past ten years. Findings from these reports can lead to approaches and policies to help mitigate these factors and reduce the likelihood of future fatalities.



Fact sheets on home ignition science from IBHS

New factsheets from the Institute for Business and Home Safety (IBHS) and the National Fire Protection Association (NFPA) on techniques for reducing wildfire risks to structures. Factsheets cover ways risks from wildfire can be reduced



through choice of materials or building techniques for: 1. coatings (such as paint or wood treatment), 2. fencing, 3. decks, 4. attic and crawl space vents and 5. roofing materials.

Fire Education and Outreach Resources from Across the Nation

Comprehensive fire education and outreach resources that were identified and recommended by Cooperative Extension System personnel and National Cohesive Fire Strategy coordinators, have been assembled on this website. Nearly 200 factsheets, case studies, resource lists, guides and more can be accessed [here](http://www.southernwildfire.net/get-involved/extension). <http://www.southernwildfire.net/get-involved/extension>



PRESCRIBED FIRE COUNCIL PRESENTATIONS

Prescribed Fire Council Presentations

Did you miss your Prescribed Fire Council meeting this fall? Did you see a presentation and want a copy of the slides? The Southern Fire Exchange has archived presentations from some of the meetings from last year. Check out the archive [here](#).

Interagency Fuel Treatment Decision Support System (IFTDSS) Training Videos Online

Did you miss the IFTDSS workshop at the 2017 AFE Fire Ecology and Management Congress? Learn how to use this completely revamped browser-based planning and analysis tool through their [new online training videos](#).



Check out the latest issue of the journal of [Fire Ecology](#), an open access journal

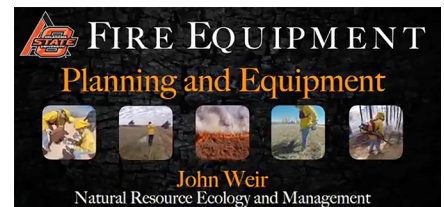


Funding Available for Wildfire Preparedness Day

Want to improve your community's wildfire preparedness capabilities? Participate in this year's Wildfire Community Preparedness day May 5, 2018. Create a plan of action and collaborate with partners from relevant agencies to identify risks to your community. *Apply by March 2, 2018* for one of a possible 150 funding awards which will be given to implement these plans. Learn more [here](#).

New videos on Prescribed Fire Equipment

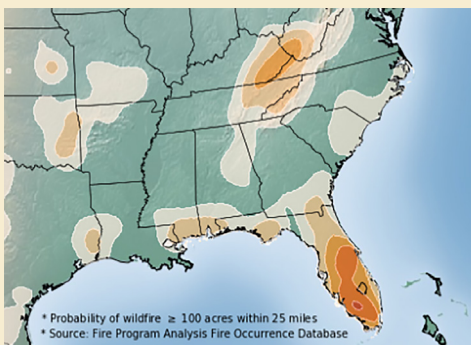
Oklahoma DNR released a series of new videos showcasing equipment used in prescribed fire with demonstrations on how it's used and when to use it. Find them [here](#).



TECHNOLOGY & TOOL UPDATES

Wildfire Probability Map

Watch how US wildfire probability changes across the country in this animated map from NOAA. Find it [here](#).



Latest Avenza Version Includes NWCG GIS Standard

Avenza maps, the mobile map app allows downloading of maps for offline use on most smartphones. The maps can link with your phone's built-in GPS to track your location on the map. An updated version of this app now includes standard map symbology for NWCG GIS Standard Operating Procedures (GSTOP) Incidents points symbols, making them more compatible with firefighting and prescribed fire. Download the app and its updates [here](#).

	Aerial Hazard
	Aerial Ignition
	Branch Break
	Camp Name
	Division Break
	Drop Point
	Fire Location
	Fire Origin
	Fire Station

Looking for some new mobile apps?

The Southern Fire Exchange has categorized lists of apps that may help you be more effective. http://southernfireexchange.org/Models_Tools/Apps.html. Are we missing your favorite app? Email us (contactus@southernfireexchange.org) and let us know!