



SOUTHERN Fire Exchange

Uniting Fire Science and Natural Resource Management



FIRE LINES

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Learn more about our [Partners](#) and the [JFSP Fire Science Exchange Network](#).

Visit the SFE Resource Center
www.southernfireexchange.org

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Smoke Research Highlights

The 2nd International Smoke Symposium at Long Beach, CA in November included many excellent presentations on topics ranging from emissions to smoke modeling to health impacts. All presentations will be available on the [Virtual Conference](#) website for three months. A major component of the Symposium was summaries of JFSP sponsored research, as well as plans for the new JFSP-funded multi-agency Fire and Smoke Model Evaluation Experiment (FASMEE), which will be conducted at several locations in the Southeast and Southwest over the next five years. We will be sharing relevant results of the past smoke research in a series of short fact sheets over the next six months.

New Health Resources for Wildland Fire Smoke

A significant number of papers, posters, and exhibits were presented by EPA, NOAA, NASA, and the Center for Disease Control. For those of you who work with public education programs or interact with state and county agencies involved in smoke mitigation and protection, EPA recently released and posted on their website several excellent resources.

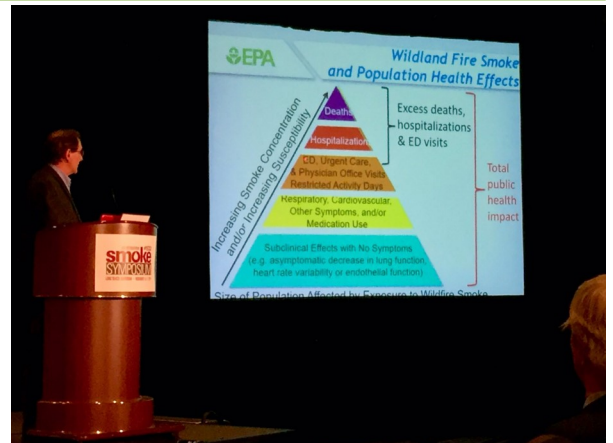
Wildfire Smoke: A Guide for Public Health Officials was revised this year and is now available on the EPA AirNow website. "Designed to help local public health officials prepare for smoke events, to take measures to protect the public when smoke is present, and communicate with the public about wildfire smoke and health," the manual includes sections on: composition and characteristics of smoke, health effects, sensitive populations, strategies to reduce exposure to smoke, communicating about particulate matter, and recommendations for public health actions. The guide is an excellent source of information and ideas. Use it to answer your own questions and share it with others in your organization who can use it to help protect the public from smoke impacts.

If you are interested in digging much deeper into what is known about health impacts of wildland fire smoke, two excellent systematic reviews were published in the last two years after exhaustive analysis of all relevant literature:

- Reid, CE, et. al. 2016. Critical review of health impacts of wildfire smoke exposure. *Environmental Health Perspectives* 124(9): 1334-1343 (Open access: <http://ehp.niehs.nih.gov/14-09277/>)
- Liu, JC, et. al. 2015. A systematic review of the physical health impacts from non-occupational exposure to wildfire smoke. *Environmental Research* 136: January 2015: 120-132, (<http://www.sciencedirect.com/science/article/pii/S0013935114003788>).

The primary conclusion in both studies, as stated by Reid et al.: **"We found consistent evidence of associations between wildfire smoke exposure and respiratory morbidity in general, and specifically for exacerbations of asthma and COPD."** We intend to produce a fact sheet in the very near future that will summarize the results of both reviews.

One other resource on the EPA AirNow website is a [webpage for health care providers](#) which includes fact sheets on particular topics and a short training course for health care providers—**Ozone and Your Patients' Health**. Another online continuing ed course for health providers will focus on particulate matter and will be released in the near future. Use and share with others in your organization, Cooperative Extension Service agents, or even your doctor!



Wayne Cascio, US EPA, presents at the Smoke Symposium on the health effects of wildland fire smoke. Photo by Guillermo Rein, Imperial College London

Save the Date:

2017 AFE International Fire Congress in Orlando, Florida

Together with the Association for Fire Ecology (AFE), the Southern Fire Exchange is very excited to be co-hosting the 2017 AFE International Fire Congress—**Fire Vision 20/20: A 20 Year Reflection and Look into the Future**—November 28 to December 2, 2017 in Orlando, Florida.

This event will include learning opportunities for fire and land managers, natural resource professionals, policy and administrative leaders, and the academic and research community. There will be workshops throughout the week, presentations on research results and applications, special sessions on management issues, roundtable discussions on key topics, and field trips on Saturday to see several examples of how fire science is being applied in Florida. Please contact Alan Long (ajl2@ufl.edu) if you have specific ideas for training workshops you would like to attend or present. The official call for proposals will come out in January but we will entertain your suggestions right now.

Mark your calendars now, and we will keep you posted as more information becomes available!

New Southern Fire Exchange Fact Sheets

We are happy to share two new fact sheets that were recently published with the help of our partners at North Carolina State, University of Florida, and Oklahoma State University.

Commonly Referenced Wildland Fire Initiatives, Programs, and Networks

By Jennifer Fawcett, John Diaz, and Jean Chung

Numerous agencies, organizations, and collaboratives conduct activities related to wildland fire. Understanding all of their different roles and objectives can be confusing! This **3-page fact sheet** provides brief descriptions of common wildland fire initiatives, programs, networks, and other efforts taking place around the country.

The Value of Forming a Prescribed Burn Association

By John Diaz, Jennifer Fawcett, and John Weir

Prescribed Burn Associations (PBAs) are popping up around the Southeast! Are you wondering what PBAs are all about? Read this **3-page fact sheet** that introduces PBAs and explains how they can help their members overcome obstacles to prescribed burning such as liability, capacity, training and experience, and resources.

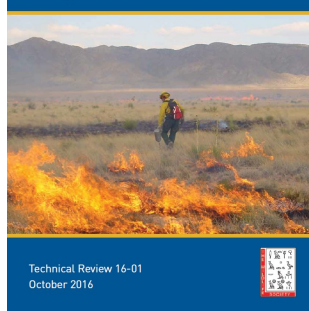
Prescribed Fire and Wildlife

The Wildlife Society recently published the Technical Review, **Effects of Prescribed Fire on Wildlife and Wildlife Habitat in Selected Ecosystems of North America**.

The review includes background on the use of prescribed fire as a management tool and then provides regionally-specific information on selected vegetation types, including southeastern pine, mixed pine-oak, and eastern coastal marsh ecosystems. Information about historical and current use of fire, fire effects on wildlife, and key challenges is provided for each ecosystem.



Effects of Prescribed Fire on Wildlife and Wildlife Habitat in Selected Ecosystems of North America



UPCOMING EVENTS

Visit the **SFE Calendar** to learn more about upcoming events. To add an event to our calendar, **email us** the event information.

Webinars

Restoring Fires Role in Fire Adapted Communities
January 26, 1pm Eastern

How Important Is It to Mimic Natural Fire Regimes in the Southeastern Coastal Plain?
February 9, 1pm Eastern

A Four-Step Approach to Planning for Wildfire in the WUI
February 16, 2pm Eastern

Next Generation Fire Modeling for Advanced Wildland Fire Training: An Introduction
February 23, 1pm Eastern

Historical Fire Regimes in the Southeast
March 29, 1pm Eastern

Workshops and Trainings

NC Certified Burner Class
January 17-18, 2017
Lillington, NC

Red Hills Fire Festival
January 22, 2017
Tallahassee, FL

Atmospheric Dispersion Modeling for NC Prescribed Burns
**Registration Deadline: January 15, 2017
January 30 - February 1, 2017
Troy, NC

Burning Issue: Sparking Effective Communication About Fire
February 7-8, 2017
State College, PA

NC Certified Burner Class
February 13-14, 2017
Carthage, NC

Fire and Longleaf Workshop
February 21-23, 2017
Garnett, SC

Northeast Oklahoma TREX
March 13-17, 2017
Vinita, OK

Fire and Longleaf Workshop
March 28-30, 2017
Cheraw, SC

Cohesive Strategy Workshop:
All Hands, All Lands: Implementation Rooted in Science
**Call for presentations closes February 3
April 25-27, 2017
Reno, NV

Prescribed Burning Workshop
May 16-18, 2017
Florien, LA
**Contact Keith Hawkins: 337-463-7006,
khawkins@agcenter.lsu.edu

Conferences

2017 AFE International Fire Congress
November 28-December 2, 2017
Orlando, FL

NEWS AND REMINDERS

TREX OPPORTUNITIES

Four new **Prescribed Fire Training Exchanges (TREX)** have been announced for spring 2017 with applications due in January for the two being held in Nebraska in March. Also, check out this **3-minute video** that summarizes the recent Women-in-Fire TREX that was held in northern California.

SOUTHEAST LA NIÑA IMPACTS

The USDA Southeast Regional Climate Hub recently published a summary of **La Niña Impacts on the Southeastern US for Winter 2016**, including a link to view maps of temperature and precipitation differences for your area.

COMMUNITY FOREST AND OPEN SPACE GRANTS

Grant applications for the **USFS Community Forest and Open Space Program** are due January 13, 2017. This program provides financial assistance to local governments, Tribal governments, and qualified nonprofit entities to establish community forests that provide continuing and accessible community benefits.

AFE POSITION PAPER

The Association for Fire Ecology released a position paper **Sexual Harassment and Gender Discrimination in Wildland Fire Management Must Be Addressed**, which includes results of their 2015 survey on sexual harassment and discrimination in the wildland fire management workforce. AFE submitted this position paper to congressional record during a hearing addressing this issue.

JOB OPENINGS

The Wildland Restoration International is seeking an Assistant Team Leader for the Southwest Florida Ecosystem Restoration Team in North Venice, FL. To learn more about this opportunity, and several other job openings in the Southeast and nationwide, visit the **SFE Employment Opportunities webpage**.

RED HILLS FIRE FESTIVAL

January 22, 2017 11am to 3pm

The **Red Hills Fire Festival** is a collaboration between many organizations in Florida and Georgia to spread awareness about prescribed fire and healthy forests to kick off Florida's Prescribed Fire Awareness Week, which is January 23-29th, 2017. The festival will be held at Tall Timbers Research Station and will include live prescribed fire, equipment demonstrations, wagon ride tours of healthy forests, fire talks with experts, kids' activities, food vendors, and live music.



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.

Join Us in 2017 for Exciting New Webinars

Restoring Fires Role in Fire Adapted Communities

January 26, 1pm Eastern

We will start our 2017 webinars by hearing from Justice Jones with the Austin Fire Department who will discuss the use of prescribed fire in the wildland-urban interface in Texas. Justice was originally scheduled as part of the **Fire Adapted Cities** webinar in November, but his portion of the webinar has been rescheduled for January 26 at 1pm Eastern. Registration will be posted soon on the **SFE website**.

How Important Is It to Mimic Natural Fire Regimes in the Southeastern Coastal Plain?

February 9, 1pm Eastern

Join presenter Reed Noss, Provost's Distinguished Research Professor at the University of Central Florida, as he discusses natural fire regimes for the southeastern Coastal Plain and how current management practices may or may not mimic important aspects of those fire regimes. **Click here to register for this webinar.**



Next Generation Fire Modeling for Advanced Wildland Fire Training: An Introduction

February 23, 1pm Eastern

FIRETEC is a physics-based, fluid dynamics wildland fire spread model that simulates fire behavior from various prescribed fire scenarios in southeastern fuels. Join James Furman with the U.S. Forest Service and Brett Williams with the Eglin Air Force Base, as they introduce FIRETEC and discuss the simulations, which were specifically designed by fire managers to answer important fire behavior questions and challenge assumptions. Registration will be posted soon on the **SFE website**.

Effective Communication About Fire Workshop

The Pennsylvania Prescribed Fire Council, Consortium of Appalachian Fire Managers and Scientists, and North Atlantic Fire Science Exchange are co-hosting a workshop titled, **Burning Issue: Sparking Effective Communication About Fire** on February 7 and 8, 2017 in State College, PA. This workshop will offer participants a suite of social science tools and examples of successes, challenges, and lessons for effectively communicating about fire.

RSS Feed for Southern Fire Exchange Website Now Available

Stay informed of new resources, job postings, and events by signing up for the new **Southern Fire Exchange RSS feed**.

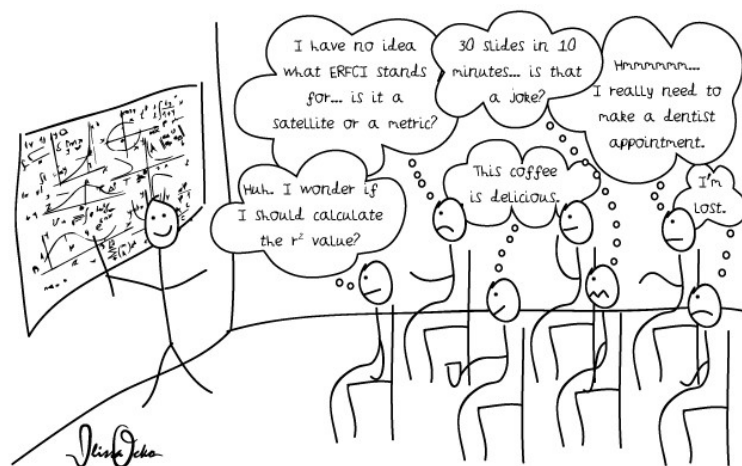


Don't use RSS feeds yet? This is an easy way to receive updates when new content is added to a website. By subscribing, you'll receive updates through your "bookmark menu" in your web browser, or through a RSS reader of your choice. To subscribe to the SFE RSS Feed, go to: http://www.southernfireexchange.org/SFE_rss_feed.xml. For information on RSS feeds and readers, visit: <http://www.digitaltrends.com/computing/how-to-use-rss/>.

Please note: The SFE RSS feed webpage will not display properly in Microsoft Edge; please select another internet browser for viewing.

Nine Tips for “Talking Science”

Whether you are a scientist or land manager, there will likely be times when you will need to explain scientific concepts to an audience of non-scientists. Whether you have done countless presentations over the years or you are early in your career, we can all use reminders on how to better communicate our messages. In a recent blog post, Dr. Marshall Shepard shares [9 Tips For Communicating Science To People Who Are Not Scientists](#) that he has learned in his 25 years of experience in communicating complex weather and climate information through his work at NASA, University of Georgia, The Weather Channel, and more. We particularly like Dr. Shepard’s first three tips: know your audience, don’t use jargon, and get to the point. [Click here](#) to read all nine tips.



COHESIVE STRATEGY IMPORTANCE IN THE AFTERMATH OF THE 2016 FALL FIRE SEASON

By Gary Wood, Southeast Region Cohesive Strategy Coordinator

After two months of historical wildfire occurrence in the Southeast, firefighters and fire managers are getting a well-deserved break with precipitation lowering fire danger. While many areas still need precipitation to raise groundwater levels, in the business of wildfire it’s not how much it rains, but how often and for how long it rains that reduces fire danger. Hopefully this trend will continue through the holiday season so firefighters can get much needed rest and spend time with family.

In the essence of the Cohesive Strategy, collaboration was a major contributor to the success of fire management operations during the outbreak of wildfires across the Southeast. While resources from across the Southeast are usually able to be shared among states, the widespread drought and fire conditions had everyone in the same situation. The cooperative efforts from federal, state, county, municipalities, and NGO’s allowed for resource sharing, even bringing some agencies together for the first time. Many of the already established relationships were strengthened as personnel worked for a common goal during stressful times. Without cooperation and collaboration, the situation could have been much worse. While collaboration is a strength in the Southeast, we must continue to build upon it within the region and with partners outside of the region. The fire season this fall proved that it must be “All Hands, All Lands!”

During the development of the Cohesive Strategy and the Southeast Regional Action Plan, three strategic opportunities were identified:

1. Expand outreach and education to landowners and residents, particularly those new to the region and/or with a non-traditional ownership background. Communications should stress prevention, increase awareness and acceptance of wildland fire management activities across the landscape, explain smoke dynamics between wildfire and prescribed fire, and encourage WUI residents to take personal responsibility for making their home and communities fire adapted.
2. Enhance collaboration, training, and capacity-building across agencies to increase firefighter safety, wildfire response, and management effectiveness.
3. Continue proactive fuels mitigation through all management techniques including prescribed burning where smoke can be effectively managed to allow for maintenance of ecosystem function and to reduce fire hazard.

As we move forward with rehabilitation of burned areas, recovery of communities affected by wildfire, and outreach and education efforts, we need to work collaboratively to address these strategic opportunities. The next six months are a crucial time for changing social behavior while the memory of this historic fire season remains vivid in the public’s mind. We have many “teachable moments” ahead and need to collectively work to educate on the importance of fire adapted communities, resilient landscapes, and firefighter safety. If we can initiate social change across our region to accept the opportunities listed above, we will have achieved great success with our implementation efforts.

