



SOUTHERN Fire Exchange

A JFSP Knowledge Exchange Consortium



FIRE LINES

A Joint Newsletter of the Southern Fire Exchange and the
Southeastern Section of the Association for Fire Ecology

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Learn more about our [Partners](#) and the [JFSP Knowledge Exchange Consortia](#).

Visit the SFE Resource Center
www.southernfireexchange.org

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SFE Spotlight on Prescribed Fire Techniques

To coincide with the emphasis on prescribed fire this fall through annual Prescribed Fire Council meetings, field tours, and trainings, the September-October SFE Spotlight Series is focusing on prescribed fire techniques. Over the next two months, we are excited to bring you an excellent line-up of webinars, a series of fact sheets by Dale Wade sharing his 40 years of experience as a prescribed burner and researcher, and two new 10-minute interviews featuring Mark Melvin (Jones Center and Coalition for Prescribed Fire Councils) and Margit Butcher (The Nature Conservancy). We also hope to see and share recent fire science with you at the upcoming annual Prescribed Fire Council meetings and field tours.

Check out our [Spotlight on Prescribed Fire Techniques](#) webpage for a full listing of related products, websites, and events. New items will be posted as they are published.



Photo Credit: Florida Forest Service

Fall Webinar Series on Prescribed Fire

Mark your calendars for the prescribed fire webinar series being organized by the Southern Fire Exchange, North Carolina State University Extension Forestry, and the Southeast Regional Partnership for Planning and Sustainability (SERPPAS) Prescribed Fire Work Group this fall. We are thrilled with the presenter line-up and the range of topics that will be covered. All webinars will be hosted through the Southern Regional Extension Forestry (SREF) [Webinar Portal for Forestry and Natural Resources](#), and continuing education credits will be available. We look forward to “seeing” you online!

Burning on Private Lands with Consultants

October 9, 1pm to 2pm EDT
John Stivers, Enon & Sehay Plantations, Retired USFS
Learn about the importance of planning, techniques, procedures, and other issues when conducting a large, successful burn program on private lands.

Federal Agency Ground-Based Burn Crews and the Prescribed Fire Training Center

October 17, 1pm to 2pm EDT
Mike Dueitt, Prescribed Fire Training Center
Greg Seamon, Tall Timbers Research Station
Learn about the Prescribed Fire Training Center, training opportunities, and key lessons learned during trainings.

Prescribed Burning Techniques and Lessons Learned

October 23, 1pm to 2pm EDT
Dale Wade, Forestry Consultant, Retired USFS
Learn about several prescribed fire topics and lessons, stemming from Dale Wade’s 40+ years of experience.

Techniques, Planning, and Precautions in Oklahoma, Arkansas, and Texas

October 31, 1pm to 2pm EDT
John Weir, Oklahoma State University
Learn about prescribed burning in Midwest prairies and woodlands with special emphasis on tools, models, and guidelines developed for this region.

Planning Large Scale Burns

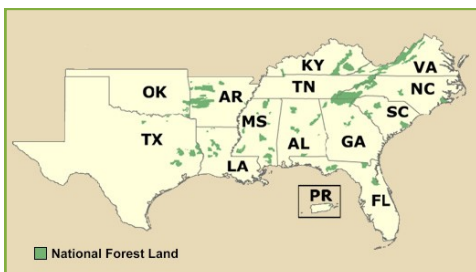
November 6, 12pm to 1pm EST
Brett Williams and James Furman, Air Force Wildland Fire Center, Eglin Air Force Base
Learn about planning and conducting large scale prescribed burns and fire science applications at Eglin Air Force Base.



Partner Spotlight:

USFS Region 8, Fire and Aviation Management Program

The goal of the [US Forest Service, Region 8 Fire and Aviation Management Program](#) is to “safely, efficiently, and cost-effectively respond to wildland fires.” The USFS works toward this goal by focusing efforts in two areas. First, the USFS works with wildland-urban interface communities to reduce wildfire risk and to support establishment of fire-adapted communities. This is done by helping communities become Firewise and develop Community Wildfire Protection Plans, and through the Fire Adapted Communities Coalition. Secondly, the USFS restores and maintains southeastern ecosystems by using prescribed fire and other management tools.



Region 8 (the Southern Region) contains 13 states and includes 14 national forests and 2 special units, making up 13.3 million acres.

The Region 8 Fire and Aviation Management Program is a collaboration of federal, state, and local partnerships, with the [Southern Area Coordination Center](#) playing the key role in wildland fire incident management activities. Interagency efforts extend into training activities, which provide opportunities for individuals to meet and maintain their training needs and qualification requirements.

Fuel Consumption Models for Pine Flatwoods Fuel Types

Quantities of smoke, and emissions such as particulate matter, depend on the area burned, the amount of fuel consumed per unit area, and emission factors for different fuels. Predicting fuel consumption for southern prescribed burning has generally been accomplished using the Southern Forestry Smoke Management Guidebook (1976) produced by the USFS Southern Fire Lab, more recent computer models, such as FOFEM and Consume, or experience. While these techniques are sufficient for general predictions, greater accuracy is increasingly important for current smoke management and regional air quality planning. Toward that goal, a new report in the *Southern Journal of Applied Forestry* provides models for fuel consumption, by fuel component, based on 31 different prescribed fires in pine flatwoods. Pre- and post-fire fuel loading and cover, weather factors, and fuel moisture were measured on all 31 sites.

The study found that the best model predictors for consumption are pre-fire fuel loading of different components (e.g., live shrubs, litter), although season and fuel moisture increase accuracy a small amount. “The models ... produced more accurate predictions for individual fuel categories than those in operational use in the FOFEM v5.9 and Consume v3.0 software applications.” The models will be incorporated in Consume and successor programs to improve consumption estimates for predicting smoke management and air quality impacts. In the author’s words, “Shrub fuel consumption estimates based on field observations (primarily pre-fire fuel loading) will allow for more informed and effective fire planning and fire use for southern pine forests in which the understory is dominated by shrubby vegetation.”

Wright, C. (2013). [Fuel consumption models for pine flatwoods fuel types in the southeastern United States](#). *Southern Journal of Applied Forestry* 37(3), 148-159.



Photo Credit: US Forest Service

Ecological Effects of Prescribed Fire Season

This 2009 [literature review and synthesis](#) by Eric Knapp, Becky Estes, and Carl Skinner compares historical and prescribed fire regimes for eastern, central, and western regions of the US and summarizes research on seasons of prescribed burning. For the eastern region, the majority of studies on the ecological effects of burning season have been conducted in pine and pine-oak forests. The report not only summarizes these research results, but provides clear management implications for southern fire managers.

See the [full report](#) (pages 43-61) for results and implications for the eastern region. Also check out the SFE fact sheet, [Nests under Fire](#), where we include this literature review’s results related to the effects of growing-season burns on ground-nesting birds.

UPCOMING EVENTS

Visit the [SFE Calendar](#) and the [JFSP Calendar](#) to learn more about upcoming workshops, training, webinars, field trips, demonstrations, and other professional development opportunities. To add an event to our calendar, send the event information to sfe@ifas.ufl.edu.

Prescribed Fire Council Meetings

Central Florida

September 20, 2013
Kissimmee, Florida

Georgia

September 26, 2013
Tifton, Georgia

North Florida

October 2, 2013
Tallahassee, Florida

South Florida

October 30, 2013
Hobe Sound, FL

Field Tours/Workshops

Wildland Fire Assessment Program Training

October 5, 2013
Raleigh, North Carolina

Field Tour: Sandpine to Sandhill in the Urban Interface

October 29, 2013
Jacksonville, Florida

Jones Center Field Workshop

October 30, 2013
Newton, Georgia (*details coming soon*)

Webinars

Working with Prescribed Burn Associations

September 18; 3pm EDT
Host: USDA NRCS

The Past, Present, and Future of Longleaf Pine in Alabama

October 3; 1pm EDT
Host: Alabama Cooperative Extension System

Fall Webinar Series: Prescribed Fire

See article, this issue
Host: SFE and NCSU Extension Forestry

Conferences

Wildland Fire in the Appalachians

October 8-10, 2013
Roanoke, Virginia

IAWF International Smoke Symposium

October 21-24, 2013
Adelphi, Maryland

Society of American Foresters

2013 National Convention
October 23-27, 2013
North Charleston, South Carolina

Backyards and Beyond:

Wildland Fire Education
November 12-13, 2013
Salt Lake City, Utah

Society for Range Management:

67th Annual Meeting
February 8-13, 2014
Orlando, Florida

Look for the SFE
at Booth 207 at
the Expo!

NEWS AND REMINDERS

20-DAY TRAINING OPPORTUNITIES

Applications for the National Inter-agency Prescribed Fire Training Center (PFTC) 20-day training sessions are due **October 15, 2013**. Five 20-day sessions are scheduled from January to June 2014, where participants will increase their prescribed fire skills and learn how to assume leadership roles in their home unit's fire program. Visit [the PFTC website](#) for more information and to download the application.

CALL FOR ABSTRACTS AND REGISTRATION OPEN

Submit your abstract and register early for the **Large Wildland Fires: Social, Political and Ecological Effects Conference** being held May 19-23, 2014 in Missoula, Montana. This conference is co-hosted by the Association for Fire Ecology and the International Association of Wildland Fire. Early bird registration is now open, and abstracts are due **January 31, 2014**.

WILDLAND FIRE IN THE APPALACHIANS CONFERENCE

The **Wildland Fire in the Appalachians Conference** is being held October 8-10 in Roanoke, VA. This event, hosted by the Consortium of Appalachian Fire Managers and Scientists and the Association for Fire Ecology, is designed for anyone with an interest in wildland fire in the Appalachian Region.

FLN NOTES FROM THE FIELD

Read a **2-page summary** of the Southern Blue Ridge Fire Learning Network Annual Workshop, held in May 2013. You can also check out workshop presentations and materials on the [Workshop 8 website](#).

ARCHIVED WEBINARS

Two webinars were recently added to our [YouTube](#). You can now find Dr. Mike Duever's webinar on **Fire and Successional Dynamics in South Florida Plant Communities** and Dr. Chris Moorman's webinar on **Fire and Fauna in the Southeast**.



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.

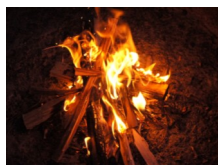
Climate Change and Southeastern Fire Potential

Research results recently published in the *International Journal of Wildland Fire* provide new insights on the effects of climate change on fire potential in the southeastern US in the 21st century. The study examined how projected increases in temperature would affect meteorological fire parameters and two fire indices—the Haines Index (HI) and the Keetch-Byram Drought Index (KBDI)—in winter and spring months. The meteorological fire parameters assessed included total and convective precipitation, a metric for atmospheric stability and storm track identification, and near-surface relative humidity (RH).

Results suggest that while fire potential will generally increase over the region during the 21st century, the degree of this increase varies by specific location. The spring season, rather than the winter, had higher wildfire risk potential because of warmer and drier conditions. The authors conclude that “In the Deep South, the Gulf Coast, and the southern portion of the Piedmont (e.g., Georgia and South Carolina), fire activity is expected to increase—especially in the spring season—given inconsistent changes in precipitation, higher HI and KBDI values, and more frequent and longer periods of days on which RH will fall below the thresholds derived in this study for wildfire potential.” By considering fire potential projections such as those reported in this study, managers can better incorporate appropriate adaptation and suppression strategies into their planning efforts.

Bedel, A. P., T. L. Mote, S. L. Goodrick. (2013). **Climate change and associated fire potential for the southeastern United States in the 21st century**. *International Journal of Wildland Fire*.

New SFE Publications!



A new SFE fact sheet, **Wildfire Ignitions: State of the Science in the Southeast**, extracts key findings for the southern states from a 2013 U.S. Forest Service General Technical Report that summarized current literature regarding how wildfire ignitions are produced, their predictability, and how prevention efforts can affect their occurrence.



Fire in wetlands was the theme of a special spring issue of the journal *Fire Ecology*. Research results described in the journal may be of interest to managers that work in wetland ecosystems. A new SFE Research Highlight, **Management Implications from the Fire Ecology Journal Special Issue on Fire in Wetlands**, briefly summarizes the management implications and take-home messages of each article in the special issue.

Workshop: Fire Ecology of the Northeast

Tall Timbers Research Station and Land Conservancy is working with the Yale School of Forestry and Environmental Studies to host a workshop titled *Fire Ecology of the Northeast: Restoring Native and Cultural Ecosystems* workshop, February 20-22, 2014 in New Haven, CT. The purpose of this workshop is to address the need for prescribed fire in northeast North America for restoring natural and cultural landscapes. Abstracts for oral and poster presentations are being accepted through October 31. Authors of accepted abstracts will be invited to submit a manuscript for publication in a special issue of the *Journal of Sustainable Forestry* focused on the workshop topic. Visit the [workshop website](#) for more information.

International Smoke Symposium

Don't miss the opportunity to participate in the **International Smoke Symposium**, October 21-24, 2013 at University of Maryland University College. The symposium, presented by the International Association of Wildland Fire in conjunction with the National Wildfire Coordinating Group Smoke Committee and the Joint Fire Science Program, will provide a venue to

- * Explore the complex policy and science issues surrounding wildland fire, agricultural burning and smoke;
- * Discuss different management strategies adopted around the world; and
- * Identify knowledge gaps within the field of smoke science for future research, innovation, and development.

If you can't travel, consider the virtual conference registration—where you watch presentations and participate in discussions, from your home or office.

Early **registration** ends September 21.

Lessons from the Fall Line Region



Thanks to everyone who participated in the Lessons from the Fall Line Region Field Tour that was recently held near Columbus, Georgia in conjunction with the Alabama Prescribed Fire Council Annual Meeting. It was a great day in the field, with 31 participants representing consultants, students, state and federal agencies, and private landowners. The staff from The Nature Conservancy Chattahoochee Fall Line Project provided excellent presentations on the local longleaf pine/prescribed fire research and restoration initiatives and the Georgia Forestry Commission provided wonderful trolleys for transportation around the field sites.

Restoration with Fire at Tiger Creek

This field tour was offered two times as part of the Central Florida Prescribed Fire Council Annual Meeting. Over the course of the two trips, more than 40 participants explored The Nature Conservancy's Tiger Creek Preserve, near Lake Wales, Florida. The tour buggy offered great views of the landscape, and along the way Tiger Creek managers shared information and answered questions about their management approach to ecosystem restoration. Participants, ranging from state agency to private sector managers and scientists, discussed the use of fire alone and the use of fire with mechanical treatment to restore central Florida uplands. Thanks to all for a great event!

