# FIRE LINES

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#### **IN THIS ISSUE**

Research Highlight: Fire Effects on Reptiles and Amphibians	
Wildfires and Home Ignitions: Life Size Testing Indoors	
Partner Spotlight: FRAMES	

FRAMES

New! SFE Fact Sheets

Upcoming Events 2

Firescience.gov Update 3

Reminders 3

### **CONTACT INFORMATION**

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Learn more about our Partners and the JFSP Knowledge Exchange Consortia.

Visit the SFE Resource Center www.southernfireexchange.org







# **Research Highlight: Fire Effects on Reptiles and Amphibians**

Research results recently published in *Forest Ecology and Management* provide insight for managers on how frequent prescribed fire in pine woodland ecosystems influences amphibian and reptile populations.

The main findings: While not all reptile and amphibian species benefit from frequent fire, most species sampled in the study appeared to tolerate fire. Managing for a diverse landscape, one that includes both fire-maintained pine woodlands and unburned mesic forests, is likely the best solution for providing habitat for a variety of reptiles and amphibians.

The rest of the story: Throughout the Southeast, resource managers and scientists would like to better understand the impacts of frequent burning on resident wildlife populations. Specifically, there is little information about reptile and amphibian population changes between short-rotation prescribed burns. To address this research need, USFS Southern Research Station scientists examined changes in habitat and relative abundance of herpetofauna species each year within a 3-year burn cycle in nine restored pine woodland stands in the Ouachita Mountains of Arkansas. The scientists conclude that, "In woodlands that were subjected to frequent fire, we found only minor changes in the herpetofaunal community during the 3-year interval between burns."

Key results of the study include:

- Some species, such as dwarf American toads and ground skinks, which were most abundant during Year 1, may benefit from the initial habitat conditions created by prescribed fire.
- Capture rates for only 2 of 36 species, southern black racers and southern coal skinks, were lower in Year 1 than in Years 2 and 3.
- While salamanders were infrequently sampled and no differences in capture rates were found among the 3 years, the authors note that species which rely on moist soils for reproduction may not benefit from frequent burning.



Fence lizards were most abundant two years after the burn. Photo by Larry Korhnak.

• The differences detected in species abundances were likely caused by changes in the forest understory structure (e.g., forbs, woody vegetation, leaf litter).

For more detail, see Perry, R.W., D.C. Craig, and R.E. Thill. 2012. Effects of short-rotation controlled burning on amphibians and reptiles in pine woodlands. *Forest Ecology and Management*, 271: 124-131.

# Wildfires and Home Ignitions: Life Size Testing Indoors

The Insurance Institute for Business and Home Safety (IBHS) Research Center in Richburg, South Carolina has engineered a unique facility to test the vulnerability of full-size structures and structural components to wind-blown embers, direct flame contact, and radiant heat. Research in the facility will help refine specifications and guidelines for home safety in the wildland-urban interface. Post-wildfire observations frequently conclude that ember storms are often more likely to initiate structure ignition than actual flame contact from burning wildland vegetation. Recent studies at the Research Center clearly demonstrate the many different ways this can happen. Learn more about the IBHS facility by reading a recent article in *Wildfire* magazine or by watching a news clip of a fire test on the IBHS website.

# Partner Spotlight: FRAMES (www.frames.gov)

The Fire Research and Management Exchange System (FRAMES) portal provides searchable fire-related information, a platform for data sharing and storage, development of new tools, and support to federal wildland fire management agencies in the United States. This valuable online resource was developed for wildland fire managers, researchers, and other stakeholders by the University of Idaho in collaboration with the US Forest Service, Rocky Mountain Research Station, and the US Geological Survey.



#### **GOAL**

To provide a systematic method of exchanging information and transferring technology between wildland fire researchers, managers, and other stakeholders in order to make wildland fire documents, data, tools, and other information resources easy to find, access, distribute, compare, and use.

The FRAMES website is divided into three main categories:

- 1. **SUBJECT AREAS:** Data, documents, tools, projects, programs, and webpages are organized into 26 subject areas reflecting categories proposed by wildland fire researchers.
- 2. **GEOGRAPHIC AREAS:** Information and opportunities for collaboration are organized by geographic regions. As one of nine geographic areas, the Southern Fire Portal provides information for wildland fire stakeholders in the southeastern states.
- 3. PARTNER SITES: Partners and organizations maintain and operate websites for multiple programs and tools. FRAMES also offers opportunities for group collaboration through shared documents, calendars, and other online resources.

The FRAMES Resource Cataloging System allows users to search more than 10,000 records. Recent efforts by Tall Timbers Research Station, FRAMES, and the Southern Fire Exchange have added an additional 26,000 citations from the Tall Timbers E.V. Komarek Fire Ecology Database. The Resource Cataloging System is being designed so fire professionals can catalog their own resources; however currently the interface is restricted to FRAMES staff.

For more information, visit the FRAMES website, www.frames.gov. See below for the link to a new SFE fact sheet that provides tips for accessing information on FRAMES and the Southern Fire Portal.

## **New! SFE Fact Sheets**

Our latest fact sheets, authored by Angie Reid—Fire Ecology Specialist with Tall Timbers Research Station and Land Conservancy—provide introductions and tips for two important online fire science resources. Click here to view both fact sheets.

#### FRAMES AND THE SOUTHERN FIRE PORTAL

FRAMES is a unique website aimed at information exchange and technology transfer among all wildland fire stakeholders. This fact sheet describes the FRAMES website and the Southern Fire Portal, where you can find fire information related to the southern United States.

#### **ENCYCLOPEDIA OF SOUTHERN FIRE SCIENCE**

The Encyclopedia of Southern Fire Science is a web-based resource containing approximately 600 webpages of peer-reviewed fire science knowledge about the southern United States. This fact sheet contains a brief description of the encyclopedia and tips for using it.

## **UPCOMING EVENTS**

Visit the SFE Calendar to learn more about upcoming workshops, trainings, field trips, demonstrations, and other opportunities. To add an event to our calendar, please send the event information to sfe@ifas.ufl.edu.

#### **Webinars**

Effects of Fuels Treatments March 27, 2012, 3pm (EDT)

Fire in Shrublands: Operational Considerations of Fire Behavior April 4, 2012, 2pm (EDT)

Smoke Management: Preparing and Informing the Public
April 17, 2012, 3pm (EDT)

Making Sense of Wildland Smoke April 19, 2012, 10:30am (EDT)

Social Motivation in the WUI: Ways to Effectively Engage the Public April 24, 2012, 2pm (EDT)

Heat Stress in the Wildland Firefighter Rescheduled, TBA

#### **Conferences**

Wildland Urban Interface Conference March 25-29, 2012 Reno, Nevada

3<sup>rd</sup> Human Dimensions of Wildland Fire Conference

April 17-19, 2012 Seattle, Washington

6<sup>th</sup> Annual Wildland Fire Litigation Conference

April 20-22, 2012 Sacramento, California

Ass. of Natural Resource Extension
Professionals (ANREP) 2012 Conference

May 20-23, 2012 Hendersonville, North Carolina

National Conference of Private Forest Landowners

May 30-June 1, 2012 Ponte Vedra Beach, Florida

National Tree Farmer Convention
June 14-15, 2012
Jacksonville, Florida

#### Workshops

Southern Blue Ridge FLN Workshop May 15-17, 2012 Canton, North Carolina

Wildlife Habitat Considerations in Managed Forests

May 21-23, 2012

#### **REMINDERS**

#### **CONNECT WITH SFE**

Get frequent fire-related updates, links, events, and information by following SFE on Twitter (@SEFireScience) and finding SFE on Facebook.

#### **TNC LEARNING NETWORKS**

Would you like to be connected with the TNC Fire Learning Networks in our region? Read this short fact sheet to learn more.

#### **SAVE THE DATE!**

The IAWF Fire Behavior and Fuel Management Conference will be in our neck of the woods, February 18-22, 2013 in Raleigh, North Carolina.

#### **SFE MINI-GRANTS**

The Southern Fire Exchange is offering mini-grants (\$300 to \$1000) to support the development research syntheses, webinars, or fact sheets on high priority topics relating to wildland fire. Click here to learn program details and download the application.

### **SFE FORUMS**

Connect with fellow researchers and managers on the SFE Forums. This is your place to discuss fire science questions and ideas.

#### **NOW STARRING THE SFE!**

Check out these videos featuring SFE team members: Kevin Robertson, Alan Long, Joe Roise, and David Godwin!

- Fire Ecology Research at Tall Timbers
- Reducing Wildfire Risk in the Wildland Urban Interface
- ◆ Soil Carbon Respiration Sampling



Along with their fresh website, the Joint Fire Science Program is providing several new ways to receive information about the latest fire science research findings, management tools, and recommendations. You can sign up for a weekly email update, which features information related to a monthly theme. Click here to see past email newsletters and updates. February was Fuels Treatment Month and featured two excellent resources for managers in the Southeast.

# FIRE MANAGERS FIELD GUIDE: HAZARDOUS FUELS MANAGEMENT IN SUBTROPICAL PINE FLATWOODS AND TROPICAL PINE ROCKLANDS

This guide provides an overview of techniques and tactics used for addressing hazardous fuels in tropical and subtropical pine forests found in Florida, the Bahamas, and elsewhere in the Caribbean. Click here to read this document.

#### KNOWLEDGE SYNTHESIS: HAZARDOUS FUELS MANAGEMENT IN LOBLOLLY PINE FORESTS

Applicable across much of the South, this synthesis covers feasibility of treatment options, approximate costs of different treatments, and how treatments might affect fuels and nonfuel factors such as soil, water quality, and wildlife. Click here to read this document.

In addition, a new blog, On Fire, features guest bloggers who share fire-related information, insights, and commentary. You can also join the growing fire community on Twitter and Facebook, where you'll find frequent posts by firescience.gov, the SFE and other fire science consortia, and many of our partners.

## **Recent Burning in the South!**





Left: More than 2,000 acres were burned January 31 at Merritt Island NWR in Florida. Check out the Kennedy Space Center in the background! Right: Prescribed fire being conducted on February 2 at Ace Basin NWR in South Carolina. Photos by USFWS/Southeast. Click here to check out more USFWS SE Region Fire Management Photos.



Prescribed fire at Calloway Forest in North Carolina, where 180 acres were burned in January. Photo by Mike Norris. Click here to see more photos on The Nature Conservancy's North Carolina Chapter Facebook page.



In early March, nearly 2,000 acres were burned in northern Georgia on the Bull Mountain Cooperative Prescribed Burn. Photo by Chattahoochee-Oconee National Forests. Click here to see more photos.