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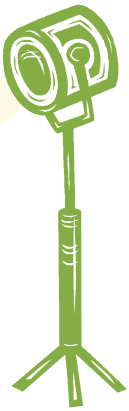
Learn more about our Partners and the JFSP Knowledge Exchange Consortia.

Visit the SFE Resource Center
www.southernfireexchange.org

New! SFE Spotlight Series



We are excited to announce a new program: The Southern Fire Exchange Spotlight Series! Every two months we will focus on a specific fire science topic relevant to southeastern practitioners and researchers. During this time, SFE activities, such as webinars, publications, field tours, and workshops, will center on different aspects of the Spotlight topic. Here is a look at the Spotlight Series topics we have planned for the coming year:

* May-June 2013: Fire in Wetlands
* July-August 2013: Fire and Wildlife
* September-October 2013: Prescribed Fire Techniques
* November-December 2013: Smoke and Fog
* January-February 2014: GIS / Mapping
* March-April 2014: Fuel Treatments

SFE SPOTLIGHT ON FIRE IN THE WETLANDS

In light of the recent special issue of the open-access journal *Fire Ecology*, our first SFE Spotlight focuses on fire in wetlands. The *Fire Ecology* issue contains ten research articles related to the role of fire in southeastern wetland ecosystem development and function. Two of the articles from the special issue are summarized in this issue of *Fire Lines* and you can access abstracts and full text for free on the *Fire Ecology* website. A new SFE Fact Sheet in June will highlight the management implications of each of the ten articles.

A Spotlight on Fire in Wetlands webpage is coming soon to the SFE Resource Center and will include related products, websites, and events. We'll send an email announcing when the webpage goes live and with details about our upcoming fire in wetlands webinar.

Introducing "10 Minutes with the SFE"

Beginning in May of 2013 and continuing bimonthly, SFE will publish interviews with experts, leaders, and sages in wildland fire management and research. Each interview will be tied to the SFE Spotlight Series and will provide personal perspectives and lessons in wildland fire science and management likely to generate ample discussion on the fire line and in the SFE online discussion forums.

For the first interview, SFE was thrilled to speak with wetlands prescribed burning expert Steve "Torch" Miller, Bureau Chief of Land Management for the St. John's River Water Management District in Florida. Click here to read Steve's "10 Minutes with the SFE" interview.

Effects of Windstorms and Fire on River Cane

River cane (*Arundinaria gigantea*, also called switch or giant cane) was historically found in floodplain forests throughout the southeastern U.S., growing in expansive, disturbance-dependent stands, called canebrakes. Approximately 98% of the original canebrake extent has been lost, due to land conversion and watershed changes. Recognizing that canebrakes provide valuable wildlife habitat and protect water quality, restoration projects are being implemented in several southern states. Previous studies have concluded that fire plays an important role in the health of canebrake ecosystems, but overall there remains a limited understanding of the role of disturbance in canebrake ecology. To expand this knowledge base and to inform canebrake management and restoration efforts, a recent study by scientists at Murray State University and Louisiana State University focused on the effects of windstorms and fire on river cane. *continued on page 2*

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The study was performed at Buckhorn Wildlife Management Area (WMA), in northeastern Louisiana, where a large tornado blowdown occurred in 2000. Following the blowdown, thirty sample plots were established within the WMA to investigate the effects of the windstorm and prescribed fire on three different types of cane stands: small stands under intact forest canopy, large stands under intact forest canopy, and stands that occur in the blowdown area. Numbers and conditions of river cane stems were assessed in each plot annually from 2003 to 2008, and data from the first and last years of the study were used for analysis.

Prescribed fire in a stand of *Arundinaria gigantea*. Photo by Paul Gagnon.

Results show that four years after fire and seven years after the blowdown, each disturbance had positive effects on cane growth. Plots disturbed by either fire or windthrow contained approximately twice as many stems as plots not subjected to disturbance. In addition, those plots impacted by both windstorm and fire had the highest density of all the sample plots—implying that fire and windstorms worked additively to produce denser, healthier canebrakes. The authors summarized the results with the following three points:

* Above-ground damage to river cane stems promotes clonal growth that more than compensates for stems lost in disturbances.
* New stems that result from disturbance are younger and likely to live longer than stem populations in undisturbed cane stands.
* Occasional disturbances appear to protect "cane stands from subsequent local extinction events, perhaps by invigorating rhizome systems as well as above ground stems."

The authors conclude that disturbances play a key role in "resetting" cane stands and recommend burning canebrakes every 3-8 years to maximize density and to protect the stand from local mortality. While fire intervals depend on several factors, including the type of canebrake forest, the interval suggested in this article is more frequent than intervals suggested in past canebrake studies.

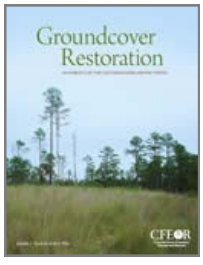
For the full text, see Gagnon, P.R., Passmore, H.A., and W.J. Platt. 2013. Multi-year salutary effects of windstorm and fire on river cane. *Fire Ecology*, 9(1):55-65.

You can also visit Dr. Paul Gagnon's bamboo, wind and fire research webpage for more information and related photos.

Partner Spotlight: CFEOR

Conserved Forest Ecosystems: Outreach and Research (CFEOR) is a cooperative comprised of public, private, and non-government organizations, landowners, and University of Florida faculty members who have a mission to conserve forest lands. Recognizing the need to incorporate science into forest management strategies, CFEOR develops and disseminates new research "to conserve and manage Florida's forests as healthy, working ecosystems that provide social, ecological and economic benefits on a sustainable basis." CFEOR facilitates relationships between researchers, extension specialists, stakeholders, and partners and supports research in several key areas including, restoring forest ecosystems; evaluating water quality and quantity; promoting biodiversity, wildlife, and fish populations; controlling invasive species; and more. The cooperative shares information with managers, landowners, and other interested parties through workshops, seminars, publications, and a bi-weekly newsletter.

The Southern Fire Exchange and CFEOR have developed an active partnership, with Dr. Leda Kobziar serving as a strong link as PI of the Southern Fire Exchange and a Co-Director of CFEOR. In fall 2011, the two groups worked with the USFS to conduct a workshop and field tour focused on fuel treatment effects in flatwoods, which is now available to view as an archived video workshop.



For more information, visit the CFEOR website. Make sure to check out the Groundcover Restoration handbook, which provides tips on planning restoration projects, factors to consider when determining restoration actions, descriptions of successful methodologies, and cost estimates of time, materials, and equipment to implement projects.

UPCOMING EVENTS

PFC Meetings

North Carolina PFC Meeting
August 27-28, 2013
Wilmington, NC

Alabama PFC Meeting
September 10, 2013
Eufaula, Alabama

Georgia PFC Meeting
September 26, 2013
Tifton, Georgia

Webinars

Flammability of Eastern oaks and Their Invaders
May 14, 2pm (EDT)

Quantifying Biomass and Fuels for Non-Forest Lands of the Coterminous US
May 14, 3pm (EDT)

Inclusion of Wildlife Attributes into Fuel Treatment Planning and Implementation
May 15, 12pm (EDT)

Mobile Technology, Situational Awareness, and Emergency Response
May 28, 5pm (EDT)

Conferences

National Conference of Private Landowners
June 4-7, 2013
Coeur d'Alene, Idaho

Association of Consulting Foresters Conference
June 22-25, 2013
Keystone, Colorado

Wildland Fire in Appalachians
October 8-10, 2013
Roanoke, Virginia

IAWF International Smoke Symposium
October 21-24, 2013
Adelphi, Maryland

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

Backyards & Beyond: Wildland Fire Education
November 12-13, 2013
Salt Lake City, Utah

Workshops

LLP Establishment & Management
May 15-16, 2013
Dorchester, South Carolina

Restoring & Managing LLP on Private Lands
May 23, 2013
Kisatchie Ranger District, Louisiana

Learning to Burn in the Growing Season
June 21 or 22, 2013
Stillwater, OK

NEWS AND REMINDERS

FIRESCIENCE.GOV
Join JFSP's FireScience.gov email list and receive weekly announcements with fire science and management news.

FIRELINE HANDBOOK
The NWCG Fireline Handbook has been revised and has a new name—the *Wildland Fire Incident Management Field Guide*.

SOUTHEAST PRESCRIBED FIRE UPDATE
Check out and subscribe to the new Southeast Prescribed Fire Update, a blog hosted by Extension Forestry at NCSU. The *Update* provides landowners, consultants, agencies, academia, and the prescribed fire community with current training opportunities, press releases, event happenings, information, and education materials.

RECORDED WEBINAR
View Pete Robichaud's recent webinar, After the Smoke Clears: The Use of Wood Mulch to Reduce Post-Fire Erosion Risk

RXCADRE VIDEO
Check out a Discovery Channel video from the RxCADRE burn experiment that took place on the Eglin Air Force Base.

TWO MORE CHAINS
The spring issue of the Lesson Learned Center's newsletter, Two More Chains, is now available.

SMOKE SYMPOSIUM
The call for papers for the IAWF Smoke Symposium is now open. Proposals are due July 1, 2013.

REGIONAL ACTION PLAN
The final Southeast Regional Action Plan for the National Cohesive Wildland Fire Management Strategy is now available.

STATE TRAINING
For those looking for certified burn manager courses or recertification courses, we've added upcoming state training dates for VA, GA, AL, and FL to the SFE Calendar.

Response of Wading Birds to Prescribed Fire in the Everglades

At the IAWF 4th International Wildland Fire Behavior and Fuels conference in Raleigh, North Carolina, Dr. Louise Venne presented a portion of her dissertation research that investigated the effects of prescribed fire on wading birds in the Everglades, a seasonally flooded south Florida wetland dominated by sawgrass (*Cladium jamaicense*). Despite decades of active fire management in many wetland ecosystems, it is poorly understood how many wetland-dependent wildlife species respond to prescribed fire.

After extensive observation in both burned and unburned areas, Dr. Venne determined that two common wading bird species, great egrets (*Ardea alba*) and white ibis (*Eudocimus albus*), specifically preferred to feed in flooded sawgrass sites that were recently treated with prescribed fire. The research team found that primary productivity in the form of subsurface periphyton algal mats, as well as the number of small fish that sometimes feed on periphyton, increased following burning. The observed increase in periphyton was attributed to the post-fire increase in light availability at the water surface caused by the loss of sawgrass canopy cover and the deposition of nutrient-rich ash and plant residues. For management interests, Venne and her colleagues suggest that prescribed burning in flooded sawgrass benefits certain wading bird species by creating conditions in the immediate post-burn period that are conducive to foraging.

This research is reported in the special issue of *Fire Ecology*. For the full text, see Venne, L.S. and P.C. Frederick. 2013. Foraging wading bird (ciconiiformes) attraction to prescribed burns in an oligotrophic wetland. *Fire Ecology*, 9(1):78-95. For more information on this study, email Dr. Louise Venne.


Dr. Venne collecting data from the airboat mounted observation platform. Photo by Travis Schrage.

Power Saw S-212 Training Accident Lessons Learned Report

Accident Brief: In December 2012 during a NWCG Wildland Fire Power Saw S-212 training course hosted by the Florida Forest Service (FFS), a FFS course Group Leader was struck and seriously injured by a falling snag. The injured employee was flown to a hospital and treated for a concussion, fractured orbital socket, and broken neck vertebrae. Following the incident, the FFS conducted a formal after action review (AAR) and published a detailed 14 page report.

The review determined that the injury occurred when the FFS employee was struck by the top of a snag that was pulled down by a number of vines that while not clearly visible at the time, were connected to the canopy of the main tree being felled. While the Group Leader and two others followed their intended escape routes as the main tree fell, the direction in which the snag fell prevented the Group Leader from observing and responding in time to prevent injury.

Lessons Learned: Always maintain and reassess situational awareness as conditions change, even during training exercises. Think: "Look Up. Look Down. Look All Around." During training events, have emergency plans that include serious injuries not only to students, but also to the instructors and staff. Follow agency procedures for utilizing radio frequencies when responding to or during an emergency event. Ensure that during training exercises, groups have access to more than one radio and that all participants, including interagency partners, are trained in the proper procedures for radio use in the event of an emergency.

Fire in the Interface Fact Sheet Series – Copies Available!

Over the past 10 years, USFS Southern Research Station's InterfaceSouth and the University of Florida have jointly produced several publications on fire in the wildland-urban interface—all are available on the InterfaceSouth website. We also have boxes of printed copies of the publications listed below. If you can use a full or partial box, email Annie Oxarart to request copies.

Fire in the Interface Fact Sheets

* Preparing a Firewise Plant List for WUI Residents (250/box)
* Reducing Wildfire Risk While Achieving Other Landscaping Goals (450/box)
* Selecting and Maintaining Firewise Plants for Landscaping (450/box)
* Understanding Fire Behavior (450/box)

Landscaping in Florida with Fire in Mind (in brochure format - 1,200/box)