

FY 2018 SOUTHERN FIRE EXCHANGE ANNUAL PROGRESS REPORT

Highlights & Achievements

The Southern Fire Exchange (SFE) began FY18 with a major role in the AFE Fire Congress in Orlando. That successful event was followed by a variety of webinars, workshops, presentations and publications. Along the way we expanded our partnerships and participation in landowner-focused training events, public outreach regarding prescribed burning and a new Tall Timbers (TTRS) initiative for prescribed fire science collaborative research. Our audience continued to expand with over 3000 now on our email list (see Table 1). Program participation (see Table 2) and post-event surveys, demonstrate that we are a successful and innovative fire science delivery program for the South. We are grateful to JFSP for their

unwavering support in providing another two years of funding and look forward to strengthening and expanding SFE deliverables in the next two years. Although FY19 begins with a change in team members, we have prepared diligently to make this a smooth transition.

In FY18 SFE:

- Gave 27 talks or briefings on fire science topics that reached over 1160 people.
- Led and/or contributed to 9 workshops, field tours and related events that collectively connected with 453 attendees across the Southeast while another 950 interested public citizens attended the Red Hills Fire Fest event that we assisted with at Tall Timbers Research Station.
- Hosted 6 webinars that reached over 2070 live and recorded viewers and presented in one additional invited webinar hosted by another organization. One of the webinars, on fire in wetlands, had over 300 viewers which was a new record for participation. Two of the other webinars were a collaborative effort with the Prescribed Fire - Air Quality Working Group to provide an overview of prescribed fire for state and EPA air quality staff around the South in one webinar, with the other providing a general training for fire managers on the air quality monitoring and management process. Both had over 150 participants. Several other planned SFE webinars were postponed to FY19 by the speakers.
- Expanded the SFE email contact list by 4% with a total of over 3000 now on the list. We know from the 2017 UNR survey that a large percentage of our list also forward SFE information to other people, substantially leveraging SFE reach to the fire community.
- Co-chaired the Association for Fire Ecology's 2017 International Fire Ecology and Management Congress (Nov. 28-Dec. 3 in Orlando, FL). This massive undertaking included organizing plenary talks, fire circles, field trips (Figure 1), workshops, general sessions and event logistics.



Figure 1. The December 2017 SFE overnight fire science and management tour of Big Cypress National Preserve in South Florida took an international group of participants from the Fire Ecology and Management Congress on swamp buggies deep into cypress domes, wet prairies and pine rocklands. Participants learned from regional scientists and managers about the science, successes and challenges of working with fire and hydrologic cycles in the 729,000-acre landscape. Photo: David Godwin

- Published 5 issues of the bimonthly *Fire Lines* newsletter on schedule; completed 7 new fact sheets with several more in final review for publishing in early FY19.
- Co-led an hour-long public radio discussion panel focused on southeastern fire science and fire ecology in response to an escaped prescribed fire that damaged more than three-dozen homes. Drs. Kevin Robertson and David Godwin teamed up with Kevin Hiers from Tall Timbers Research Station for this invited program that reached an estimated 10,000 listeners through the WFSU-FM radio network and online stream.
- Received positive feedback from workshops, events and webinars through event evaluations as well as unsolicited emails or personal communications. These interactions provide both quantitative and qualitative data that suggest that we are reaching our goals of fire science delivery in the South.

“Great program. Keeps the important issue of smoke management up front.”
 – Webinar Attendee

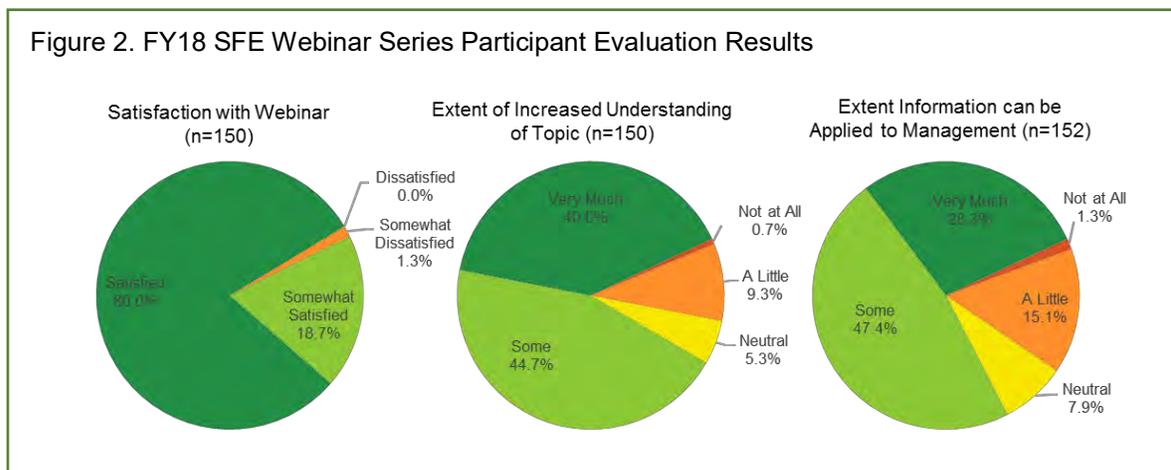
“Excellent presentation of essential information. Appreciate the opportunity to spend the day with these experts.”
 – Workshop Attendee

“Thank you for all the great webinars! Could you send out a link to where they are archived, so we can share with colleagues for rainy days?” – Webinar Attendee

A selection of some of the encouraging comments and feedback SFE received in FY18.

Other Accomplishments

In FY18, SFE “increased access of fire science research and SFE resources”, which is one of our high-priority logic model outcomes. This accomplishment was demonstrated through our growing contact list, high number of webinar attendees and over 5,000 contacts through our programs over the past year. We hosted 6 webinars in the FY18 and post-event evaluations (Figure 2) show that webinars continue to be an effective medium to provide a direct exchange between scientists and land managers across the region. In post-webinar evaluations, 80% of respondents were satisfied with the webinar content, 85% indicated that webinars increased their understanding of fire science topics, and 75% responded that webinars provided information that could be applied to their fire management activities (Figure 2). Furthermore, 66% of webinar participants were either public or private land managers where they may be in positions to apply fire science information.



"I'm in air policy now, but I come from a fire background (MS in forestry, with an emphasis on forest/fire ecology and conservation) - this presentation was definitely good for folks that don't have any fire background, and I still appreciated hearing things again." – Webinar Attendee

success with 517 attendees of which over 200 were from the Southern U.S. (Figure 3). Attendance would likely have been considerably higher except for the federal agency meeting management restrictions on travel. Dr. Long was the conference Program Chair and Dr. Godwin was a member of the Field Trips Committee. In addition, all members of the SFE Leadership Team gave presentations and/or moderated sessions. The conference included: 20 special sessions with about 150 presentations, over 150 general session presentations, 83 posters, 18 interactive fire circles, 12 training workshops, 7 field trips, 10 Fire AFEx talks and 8 plenary speakers. Post-Congress evaluations indicated that there was almost too much to do! However, the evaluations also showed that approximately 90% of the 150 respondents indicated that they somewhat or very much "increased their understanding of fire ecology" and "gained information or skills they can use in their fire-related work".

One of the plenary talks and several special sessions were specifically developed to solicit and share information about JFSP and FSEN impacts on fire science and regional fire management.

Research Highlights were submitted for 27 of the conference presentations and they're available for review on the AFE website. Facilitated by a partnership between the Southern Fire Exchange and the University of Florida, the plenary, Fire AFEx talks and several of the conference special sessions were video recorded and are available for viewing on the AFE website. These video recordings are valuable resources for a variety of training, outreach events, and science delivery products beyond the conference.

"All of AFE's community is in your debt for the tremendous efforts you invested into making what EVERYONE is calling "The Best Fire Conference Ever". Not kidding. It was really special and it's because of the good-hearted, brilliant, dedicated people like you who led the planning and execution." – Former Director of the Association for Fire Ecology

Prior to the conference in October, SFE hosted a very popular duff fire science and management workshop. The workshop featured presentations by Dr. Morgan Varner from the U.S. Forest Service Pacific Northwest Research Station on his leading research on the science of duff fires and duff fire caused pine mortality. Other presentations by Kevin Hiers (Tall Timbers Research Station) and Nathan Klaus (Georgia Department of Natural Resources) provided timely management tips, tools and strategies for mitigating duff fire losses. The Florida State University Coastal and Marine Lab hosted the workshop and during the afternoon field trip participants and speakers had the opportunity to collaboratively offer management suggestions to help the Marine

In FY18, use of our SFE website increased again, with 17,164 sessions by 10,473 users and a 30.13% increase in page views (47,823) compared with 2017.

The 7th Association for Fire Ecology (AFE) International Fire Ecology and Management Congress in late November 2017 was a huge



Figure 3. SFE co-led the 7th International Fire Ecology and Management Congress in late 2017 with the Association for Fire Ecology. The event had 517 attendees, 150 presentations and 7 field trips.

Lab staff develop solutions for dealing with a duff-laden tract of mature longleaf pine. The workshop presentations were recorded, and the online videos have already received over 550 views on the SFE YouTube Channel.

One of the workshops SFE hosted after the AFE conference was a very successful FIRETEC Fire Model workshop at Tall Timbers that explored the latest outputs and visualizations from the advanced FIRETEC fire behavior model. Workshop speakers included Dr. Rod Linn of Los Alamos National Lab, Brett Williams of Eglin Air Force Base, and James Furman with the U.S. Forest Service. This was the first workshop that SFE has live-streamed entirely on YouTube for remote participants and leveraging that new technology allowed multiple Department of Defense and U.S. Fish and Wildlife Service natural resource management program leaders to attend remotely.

In FY18, SFE participated in several national and regional conferences and events beyond the AFE Fire Congress. SFE programs and resources were on display at the 2nd National Cohesive Wildland Fire Management Strategy Workshop, the Society of American Foresters Conference (shared with NC State Extension), the Fire Continuum Conference (presentation by Dr. Godwin and a booth shared with Southwest Fire Science Consortium), the University of Florida Spring Symposium, the Red Hills Fire Festival and the Southern Group of State Foresters meeting (presentation by Dr. Long).

In the spring of FY18 for the second year in a row SFE supported the Prescribed Fire Science Consortium (PFSC) collaborative research burn event. We've taken the lead in creating a series of short videos with the PFSC scientists that document and communicate the relevance of their prescribed fire science research projects in the South (Figure 4). Our photos and videos of the FY17 and FY18 PFSC events have helped to solidify SFE as a key science delivery partner for the PFSC.



Figure 4. Researchers prepare to launch a UAV at the 2018 Prescribed Fire Science Consortium collaborative research event. SFE photos and videos have helped to communicate the relevance of the fire science research.
Photo: David Godwin

Looking back, SFE continues to see the value of maintaining a science delivery program that develops a variety of resources for connecting scientists and managers while focusing those programs on the topics that are salient to the region.

The 2017 annual progress report and refunding proposal submitted in to the JFSP Program Office in February contained substantial evaluation information on SFE program success garnered from the 2017 UNR survey and post-event surveys. In addition, the project final report that we prepared for the Southern Research Station in September (for closing out our Cooperative Agreements before new Joint Venture agreements were initiated) contains a list of metrics through which we showed progress toward most of the Outcomes in our Logic Model. Rather than repeating those here, we attach that evaluation of Outcomes at the end of this 2018 Progress Report.

Staff Changes

No staff changes occurred during the year, but several took effect at the beginning of FY19. Leslie Bobby, an Extension Associate in the Southern Regional Extension Forestry (SREF) office had

provided leadership for the newsletter, fact sheet publishing, and planning since mid-2016. Ms. Bobby stepped away from SFE at the end of September 2018 to assume other responsibilities in the SREF office. Laurel Kays began as a new half-time Outreach Specialist for SFE in October. She is in the North Carolina State University (NCSU) Forestry Extension program and will split her time between SFE and the Southeastern Partnership for Planning and Sustainability (SERPPAS) fire extension work at NCSU. She brings to the position experience in Extension work as well as in wildland fire and we believe the shared position will further connect us with an important regional partner. We welcomed Dr. Raelene Crandall, Assistant Professor of Fire Ecology at University of Florida, to our SFE Leadership Team last year and she assumed the SFE PI role on October 1 when Alan Long retired. Dr. David Godwin is now the Administrative Director while also retaining many of his previous Coordinator responsibilities.

Comparison with Planned Work

As in past years, SFE had a full set of activities planned for FY18 and we focused on our stated objectives while remaining flexible to respond to new opportunities and additional work. In most cases, we met or exceeded our planned activities for the year. For example, we planned 13 technical presentations and successfully completed 27 despite the fact that some meetings were postponed or rescheduled at the end of the fiscal year due to the impacts of Hurricane Florence in the Carolinas. Similarly, we were involved in 11 workshops, field tours, or demonstrations compared to our POW target of 10. Unlike recent years when the number of webinars exceeded targets, we were only involved in 6 out of 12 webinars resulting from 6 of the scheduled webinar speakers requesting that their presentations be rescheduled until FY19. While this impacted the number of webinar participants we were able to reach in FY18, our participation in a hour-long public radio network show on fire science and fire ecology reached an estimated 10,000 listeners (<http://news.wfsu.org/post/perspectives-prescribed-burns-0>).

On the publications side, for the first time in several years we exceeded our fact sheet target by hiring several part-time science writers during the summer. In addition to the 7 fact sheets published by the end of FY18, we have several more that are currently in review and will be published in early FY19. Several publications that we had on our FY18 POW were to be developed in partnership with the SREF program. We supported the development of these products early in the fiscal year, but program and funding challenges internal to SREF that arose in FY18 have stalled the further production of the landowner guides to smoke and prescribed fire.

In FY18 we extended the reach of several of our programs, such as the ground cover and duff workshops and the PFSC research gathering, by creating online videos that not only share the fire science information across the region, but all also archive the information for future use in classes, RT-130 events and training sessions.

Priorities & Initiatives

We will continue to focus most efforts on science delivery in the four program focal areas that have been SFE priorities for the past several years (see box). Specific outputs for each theme were listed in the POW that accompanied our FY19-20 refunding proposal earlier this year. In addition, we will be using our new FY19 funding to build on efforts started in FY18 to develop a suite of print and video products that will be useful for communicating and sharing fire science research and management application “success stories”. These success stories will identify, document and showcase successful examples of how and where fire science research has been applied to improve fire management decisions and outcomes. Working in partnership

SFE FY19 Program Focal Areas

- Smoke and air quality
- Prescribed burning
- Fire ecology
- Wildfire mitigation and suppression

with the Southwest Fire Science Consortium, we expect to have products from this project ready for distribution by the broader Fire Science Exchange Network by the end of FY19.

New Audiences & Partnerships

The added emphasis in 2017 on educating landowners and the public about wildland fire continued in 2018 with several new audiences and efforts. The AFE Fire Ecology and Management Congress had one special session and fire circle focused on expanding public education about wildland fire in the region. We also spent several days with Cooperative Extension Service (CES) Natural Resource directors from all the southern states talking about how SFE might be a major resource for their agents in developing and sharing CES fire-related programs. Our new half-time Outreach Specialist in NCSU Extension will be a key player as those efforts move forward. One relatively new effort in educating the public about wildland fire has been weekend 'Fire Fests' featuring many different fire-related organizations and activities and attended by hundreds of people. SFE has participated in two public Fire Festivals in partnership with Tall Timbers Research Station and is helping to plan a new Fire Festival in north-central Florida.

We also continued involvement with the Tall Timbers Research Station's Prescribed Fire Science Consortium (PFSC) that was initiated in 2016. SFE was a partner in a major PFSC prescribed fire field research week in the spring and provided two of the talks in the Special Session on Prescribed Fire Science at the AFE Congress. All the talks in that Special Session were recorded and are archived online.

Developing Trends

In an unanticipated change of events, in FY19 SFE will be developing and sharing fire science resources that will provide information and tools for those impacted by the fall 2018 hurricanes Michael and Florence. In Florida, over 3 million acres of timberland were damaged by Hurricane Michael resulting in an estimated \$1.3 billion loss (Florida Department of Agriculture). We have already started to pool fire science resources for dealing with wildfire and prescribed fire in post-hurricane damaged tracts and we anticipate steering more of our FY19 program efforts towards this new pressing regional need.

After our annual team meeting and advisory board call in late August 2018, we decided that during this period of transition in SFE leadership we will be reorganizing our Advisory Board to be more efficient and effective in coordinating our resources across the region. During FY19 SFE will increase the frequency of our Advisory Board calls and seek replacements for some of our less active members.

What We Will Build On and Do Differently

In FY19 we plan to seek an outside contractor to assist us with the much-needed modernization of our website to a contemporary content management system platform. Our website needs an update in terms of the visual appearance as well as the back-end maintenance process and we see this time of SFE leadership transition as an opportunity to implement this change.

With the new SFE Outreach Specialist position at NCSU shared with SERPPAS, we plan to build on opportunities in FY19 to increase our collaboration with SERPPAS on projects related to Cooperative Extension and the Department of Defense. Having participated in the 2nd National Cohesive Wildland Fire Management Strategy (CS) Workshop last year, we have increased our connection with the regional CS coordinator and we anticipate looking for additional opportunities

to join forces with the CS program especially as the national workshop moves to the Eastern U.S. later this year.