SW Fire Science Consortium

Spring 2011 Newsletter

May, 2011

In This Issue

Join Our Mailing List!

Greetings SWFSC Community!

In this newsletter, the Southwest Fire Science Consortium (SWFSC) announces the most recent Consortium news, past activities, and upcoming events including the Santa Fe Watershed Forum and Field Trip for which registration is open. We have a Featured Note that discusses new research on slash piles and presents an opportunity for your input. Lastly, do you have new research or a project related to fire to share? Read more to find out how our Consortium can help.

Featured Note: New Research on Slash Piles

How do pile age and season of burn influence combustion and fire effects?

Pile burning is a common approach for addressing the slash generated by thinning or fuels reduction treatments. However there is relatively little scientific information about how these piles burn or the impacts of pile burning on forests. With support from the Joint Fire Science Program, Dr. Clint Wright from the US Forest Service, Pacific Northwest Research Station and Dr. Zander Evans from the Forest Guild are planning a new research project to examine how piles change with age and how those changes affect the amount of biomass consumed, the rate of pile combustion, carbon dynamics, soil characteristics, and vegetation response. Experimental pile burns will be conducted in the Southwest as part of the planned project. The project is in the planning stage and Zander is looking for potential collaborators in the Southwest.

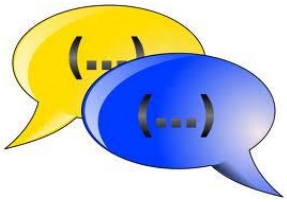
This research will build on the "Piled Fuels Biomass and Emissions Calculator" that provides managers a tool to accurately and efficiently estimated the biomass of slash piles and emissions (http://depts.washington.edu/nwfire/piles/). Because of concerns about smoke and air quality, managers must understand and be able to quantify emissions when piles are burned. Pile burning releases CO_2 to the atmosphere and converts biomass to charcoal and pyrolized soil organic matter when combustion is incomplete. Both processes affect total ecosystem carbon pools and fluxes. Pile burning can also significantly change soil processes, plant establishment, and adjacent vegetation.

The effects of pile burning, however, may depend on factors that change fuel and combustion characteristics such as pile age, the type of material piled, and season of burning. The new project will help shed light on how pile age and season of burn influence combustion and fire effects.

In a related topic, the team also plans a synthesis of the existing knowledge about the effect piles have on the behavior of unplanned fires. The team will conduct a literature review and interview managers who have seen or dealt with slash piles burning in unplanned fires.

Interested in getting involved? Have a story to share about how the presence of piles affected a wildfire? Contact Zander Evans at the Forest Guild (zander@forestguild.org or 505-983-8992 ext 36)

Share Your Topics



Are you involved in new research or projects related to fire? How about a workshop or field trip?

We can help you spread the news and provide logistical and financial support.

The SWFSC can feature your research or project in upcoming newletters, put on a webinar, develop an ERI Working Paper or Fact Sheet, or even create a Wildfire Lessons Learned video on your topic. Fill out a proposal from (**click here**) and return an electronic copy to swfireconsortium@gmail.com.

We also have up to $8,000 of funding available to sponsor an already planned workshop/field trip or help you develop a new one. If you have a planned activity or have a new idea for a workshop or field trip please let us know. Fill out a workshop proposal form (**click here**) and return an electronic copy to swfireconsortium@gmail.com.

Recent News and Activities

News

We have a **NEW Partner's Page** on our website. We would like to thank all of those who have been instrumental in making the SWFSC a success. They have devoted their time in helping to carry out our Consortium's goals. Partners listed include members of the SWFSC executive board, fiscal cooperator, co-PIs, PI, coordinator, and event committees. We couldn't do this without you!

Want to stay current with all the latest Consortium happenings? Follow us on Twitter (search for **SWfirescience**)

Webinars

Southwest Climate Change Initiative
Marcos Robles of the The Nature Conservancy presented information from the Southwest Climate Change Initiative. The Initiative is a collaborative effort started by The Nature Conservancy in 2008 to provide climate science information to natural resource managers in Arizona, New Mexico, Colorado and Utah so that they can begin responding to climate change. First, Marcos presented the results of a regional climate change assessment where TNC has evaluated the effects of recent temperature change on from 1951-2006 on major habitats and species across Arizona, New Mexico, Colorado, and Utah. Major habitats are current vegetation grouped into plant communities with a common set of dominant plants, regional climate, and disturbance regimes. TNC has also characterize habitats by the number of species of conservation concern that are found within them. Species of conservation concern are those species listed under the Endangered Species Act or those species with a global conservation status of critically imperiled, imperiled or vulnerable. Second, Marcos presented the

results from two landscape sites in the Southwest, the Four Forest Restoration Initiative Area in Arizona and the Jemez Mountains in New Mexico, where managers and scientists have initiated planning activities to adjust fire management strategies given what is known about climate change impacts.

- The regional report is available for download here:**http://azconservation.org**
- The landscape site reports are available here: **http://nmconservation.org**
- **A recording of the webinar with audio**

Fuels Treatment Practices for Mixed Conifer Forests in the Southwest
On May 18th Dr. Alexandar Evans presented a webinar which covered the guide's definition of mixed conifer, past land use and management activities, fire regimes and historic conditions, and impact of altered fire regimes in mixed conifer forests of the southwest. Since Euro-American settlement, many mixed conifer forests have become more homogeneous and can therefore facilitate larger, higher-severity fires than those that occurred historically. Increasing heterogeneity in mixed conifer forests at the landscape scale to approximate historic conditions is important for achieving many management objectives, from fuel reduction to wildlife habitat. Dr. Evans also discussed effectiveness and impacts of different fuels treatment techniques such as prescribed fire, silvicultural treatments, and combinations of cutting and burning in mixed conifer forests. The Guide also draws on interviews with 75 managers and experts and the webinar included the synthesis of their insights into the impediments to management and ways of overcoming them. For example, smoke management and wildlife habitat protections are two common issues that can make treatments more complicated, though not impossible.

- The report is available for **download here**
- online discussion group focused on mixed conifer fuel treatments for questions, comments, and suggestions at: **groups.google.com/group/mixed-conifer**
- **A recording of the webinar with audio**

Upcoming Events

Santa Fe Watershed Forum and Field Trip

June 13, 2011 - Santa Fe, NM

Do you work in a municipal watershed at high risk of catastrophic fire?

If so, consider attending the Santa Fe Watershed Forum and Field Trip, June 13th, 2011 in Santa Fe, NM. A large and diverse group of collaborators has successfully initiated restoration of ponderosa pine forests in the Santa Fe municipal watershed, which provides up to 50% of Santa Fe's water. Follow-up prescribed fire treatments within sight of the state capital building have been successful in-part due tocontinuing outreach to maintain high levels of public support. The goal of this forum and field trip is to share lessons learned and the science behind the ongoing restoration efforts in the Santa Fe Watershed to managers in other municipal watersheds at high risk of catastrophic fire.

The one-day research forum and field trip will be used to present the keys to successful restoration process and the broad range of research and monitoring that has been completed, is ongoing and is planned within the watershed as it relates to fire and watershed management. This will be followed by a field trip into the watershed to visit different treatment, research and monitoring sites.

We are encouraging managers working in municipal watersheds threatened by fire to register.

- **Register now!** - There is no registration fee, but registration is limited.
- **Forum and Field Trip Agenda**
- Date and Time: June 13, 2011, 8:00am - 4:30pm

Contacts:
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Amy C. Lewis, Hydrologic consultant to the Interstate Stream Commission and City of Santa Fe, (505) 982-0405, amychilderslewis@earthlink.net

2012 Southwest Fire Ecology Conference
Fire, Landscapes, Wildlife & People: Building Alliances for Restoring Ecosystem Resilience
February 27-March 1, 2012
La Fonda Hotel, Santa Fe, New Mexico

We plan to put on a fire science and management conference in the Southwest every four years. The last Southwest Fire Conference was in January 2008 in Tucson, Arizona. The Southwest Fire Science Consortium in partnership with the Association for Fire Ecology and Humboldt State University will be hosting the 2012 Southwest Fire Ecology Conference in Santa Fe, New Mexico, February 27-March 1, 2012.

This conference will engage researchers, decision makers, and practitioners across disciplines in friendly roundtable discussions on key issues, informed by scientific and practitioner talks and panel debates. An important objective is for participants to become acquainted with emerging initiatives and partnering opportunities that can enhance their fire community capabilities. Our hope is to provide managers and researchers the opportunity to share scientific findings and manager experience on fire's role in restoration of watershed, wildlifre habitats, and in sustaining ecosystem services for future generations.

Calls for presentations and posters as well as proposals for workshops and special session will be out in June!

- **Conference Flyer**
- Conference website (**click here**)

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