



**SOUTHERN  
Fire Exchange**

Uniting Fire Science and Natural Resource Management



SFE 10 Minutes 2013-5

## 10 Minutes with the Southern Fire Exchange: Margit Bucher

*10 Minutes is an interview series where the Southern Fire Exchange talks with experts, leaders, and sages in southern wildland fire management and research. In this interview, the SFE speaks with Margit Bucher, Fire Manager with The Nature Conservancy in North Carolina.*

### In what ways does prescribed fire application in the South differ from other parts of the country?

“In the Southeast, we typically have year round rainfall and grasslands, shrublands, savannas woodlands, and forests have burned frequently (<30 year fire return interval). In addition, we have year round wildfires that mostly start in the wildland urban interface. It seems only Florida and a few Gulf coastal plain states have retained a strong controlled/prescribed fire culture, which helps maintain resilient habitats and reduces wild-fire risk to homes and timberlands. Outside of droughts, southeastern natural resource managers have the opportunity to burn year round and need to use fire regularly and repeatedly as a tool to maintain pine and oak forests, grasslands, and shrublands as habitat, and to reduce the risk of wildfires threatening property. More people live in the Southeast compared to the West, wildlands tend to be smaller, and most of the lands are privately owned. These factors often limit opportunities in the Southeast to manage ignition for natural resource benefits without threatening homes, timber values, or impacting human health compared to western states.”

### What key factors do you consider when deciding ignition techniques for your burns?

“Desired fire effects, safety of burns, and smoke management.”

### What are the biggest barriers to growing your prescribed fire program?

“Few available burn days (when appropriate fuel conditions, weather, and smoke dispersal align), having burn opportunities change frequently as the weather and forecasts change, and having funds and crew available to burn and deal with extended post fire patrols and mop-up especially in drier/drought cycles. Lack of consistent, predictable funding for seasonal crews, equipment, and fire lines for a 9 to 12 month burn season often limit the ability to take advantage of scattered burn days throughout the year and to apply a variable burn regime to wildlands. Another barrier is public perception (fear of fire) and support for burning wildlands.”

### Do you have advice for fire managers who are working to overcome similar barriers?

“Get to know your local fire weather forecaster and fire control officers, and call them when in doubt. Commit to an outreach program before you start burning in an area that has not seen fire for a while or if a housing development becomes your new neighbor. Build relationships with your neighbors and have fire crews visible during the fire and until the fire is out. Collaborate with others and have crew and equipment available locally to deal with changes in weather and forecast. Engage volunteer and municipal fire fighters so they know what you are doing. VDF’s can be the “experts” concerned neighbors



**Margit Bucher**  
**Fire Manager, The Nature Conservancy**  
**North Carolina Chapter, Durham, North Carolina**

Margit oversees the fire management program on 50,000 acres of Conservancy lands in North Carolina, and co-leads the Southern Blue Ridge Fire Learning network. She has collaborated on research projects to identify ignition thresholds in organic (pocosin) soils and vegetative response to peat burns and emissions from prescribed burns. She is a ‘burn boss’ (RXB2), fire ecologist, and a founding member and first Chair of the North Carolina Prescribed Fire Council.



turn to for advice; you want them in the ‘know’ and on your side. Be patient, persistent but flexible in the when and how to apply fire. Make burning a priority with support from your leadership.”

### **What are some of the resources that you use to find science-based information to incorporate into your burn plans?**

“Attend scientific and prescribed fire council meetings, literature searches, peer networks, science consortia websites and newsletters (Southern Fire Exchange and CAFMS) and Wildland Fire Lessons Learned Center.”

### **What are some examples of how fire science could be applied when planning and conducting prescribed fires?**

“Predicting when smoke from wildland fires can induce superfog, and warning burners when this could happen in advance and/or advising fire control agencies on wildfires so mitigation efforts can be taken (public alert, signs, road closures).”

“Testing of smoke modeling tools to enhance emission and smoke modeling to better predict/avoid/mitigate smoke impacts.”

### **What are some of the management and ecological questions that you would like to see addressed by fire science researchers?**

“How do we create public support that asks managers and agencies to restore and maintain fire dependent wildlands on a landscape scale?”

“Can prescribed burning be used to enhance water availability and improve water quality in some ecosystems?”

“What are the most effective fire return intervals, season and fuel conditions to restore oak and pine woodlands in the southern Appalachians anticipating climate change and changing weather patterns?”

### **Finally, what is one ‘must-hear’ message that you would like to share with fire managers in the South?**

“We as fire practitioners need to use ‘one message, many voices’ since we are often perceived by the public as one group. In the public eye, our successes and mishaps are shared by the fire practitioner community, hence using fire wisely and sharing our knowledge of its beneficial role will likely be key to maintain healthy wildlands for critters, plants, enjoyment and safety of people in the long term from the coast to the mountains.”

Special thanks to Margit Bucher for sharing his perspectives and for being part of our 10 Minutes interview.

Do you have something to say? The SFE Discussion Forum is the perfect place to build on Margit’s responses and share your comments, questions, and ideas with the southern fire community.

For more information on the Southern Fire Exchange, visit [www.southernfireexchange.org](http://www.southernfireexchange.org).



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.

