



# SOUTHERN Fire Exchange

Uniting Fire Science and Natural Resource Management



SFE 10 Minutes 2013-2

## 10 Minutes with the Southern Fire Exchange: Mike Carloss

*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 Gulf coastal wetland prescribed burning expert Mike Carloss, Biologist and Director for the Louisiana Department of Wildlife and Fisheries.*

### What makes burning in wetlands different from burning upland ecosystems?

“The most important difference between burning in wetlands and burning in uplands is typically the water component. All of my wetland burning experience has been in Gulf coastal marshes that are tidally influenced as well as in some managed areas with water control. Therefore understanding the effects of weather and tides is essential to accomplishing efficient and effective marsh burns. Another difference between upland and wetland ecosystem burning is that tidal creeks, sloughs, canals (etc.) typically act as natural firebreaks making it easier to control burn areas, as opposed to having to create firebreaks. While the goals of burning in each ecosystem are similar, (to set back succession of undesirable species and encourage the growth of more desirable ones) the vegetative species are different in wetlands than in uplands ecosystems. It is also very important to understand the objectives of marsh burning and how to use fire wisely, especially given issues like coastal wetland loss. For example, the loss of coastal wetlands can actually be accelerated if marsh burns are done improperly.”

“Additionally, burning in wetlands requires different logistics than burning in upland ecosystems. Marsh burning always requires the use of boats and sometimes specialized boats such as airboats or mudboats. Burning in marshes usually results in marsh fires that last multiple days, depending on the condition of the marsh. This is atypical of upland burning. A typical marsh fire will burn a few hun-

dred to a few thousand acres.”

### What are some of the specialized tools, pieces of equipment or techniques that are needed for burning in wetlands?

“Primarily the tools we use are propane torches but more specialized equipment for ignitions includes aerially broadcast ping-pong balls. As mentioned above, boats are almost always required to burn in wetlands. The need for boats can be both positive and negative. It is positive because it means that the prescribed burning activity is occurring in remote areas far from populated areas. It can be negative at times as access to burn units can be limited due to hazardous weather conditions.”

### How have you managed to grow public support for agency fire management programs?

“Historically we have not addressed public support because the areas we burned were so remote and only accessible by boat and public support was not an issue. However, we realize that in the future we will have to account for public support and I envision this being accomplished primarily through public meetings or other venues.”

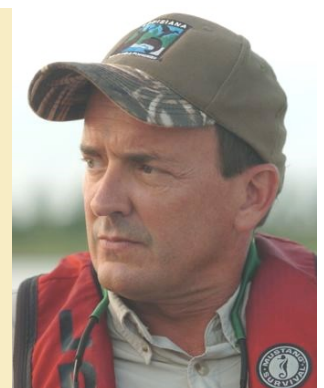
### What significant changes do you expect to see in fire and land management in the South in the next 25 years?

“Due to increases in urban sprawl and encroachment, I



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Mike is currently a Biologist and Director for the Louisiana Department of Wildlife and Fisheries, Coastal and Nongame Resources Division. He has a bachelor's degree in wildlife management, a master's of science degree in biology, and has attended the Louisiana State University law enforcement academy. Mike has over 25 years of experience with the Louisiana Department of Wildlife and Fisheries and Louisiana State Parks, as well as 2 years of experience with the USDA Natural Resources Conservation Service.



foresee that we will likely be required to have burn plans for all prescribed burns. In order to accomplish conservation on a landscape scale, fire will continue to be an important tool but it will be increasingly difficult with more humans on the landscape.”

“Additionally, burning in coastal marshes (along with other land management activities) will become more difficult due to wetland loss. Interior marsh subsidence and erosion has resulted in challenges for managers because fragmented areas are difficult to burn. It requires more manpower, is more costly, and is physically difficult to burn due to changes in vegetation cover.”

### **What advice do you have for early professionals that can help them prepare for and shape the next 25 years of fire and land management in the South?**

“The most important advice that I have for early professionals is to be involved in fire programs and to know the history and the need for fire as an important wildlife conservation tool. As society’s opposition to fire management increases, we need as many educated people as possible to speak in favor of burning and dispel negative discussions about fires.”

### **What are some of the resources that you use to find fire science information to incorporate into your management program?**

“We routinely coordinate with other professionals that use fire management in their programs. Networking with other professionals and discussing fire management helps to keep our program current. We also attend prescribed fire council meetings and reference research and other publications to obtain fire science information.”

### **What is one example of fire science being successfully applied to the ground?**

“One example of using fire science for daily management decisions is the practice of rotational burning. In the past, managers often burned the same marshes on an annual basis. Because of research over the past couple of decades, managers now burn marshes on a three-year rotation and have modified burn plans and documented burned areas using mapping software. Using this new fire science

information along with mapping software helps managers decide when and where it is most appropriate to burn.”

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

“There has been a great deal of research over the past few decades and many pressing ecological questions have already been answered. However, in the future as the frequency of burning decreases in many areas due to wetland loss and urban encroachment, questions remain as to how changes in burn frequency will impact certain wildlife species. It is important for us to understand how changes in burn regimes and other stressors will impact important focal species.”

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

“Nothing new here but in my opinion, education and communication will be key to the future of fire as a management tool.”

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

Do you have something to say? The [Spotlight on Fire in Wetlands](#) thread on the SFE forum is the perfect place to build on Mike’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).