

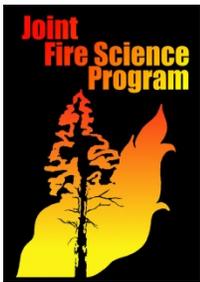
Final Report

Project Title: **Managing Forested Wetlands with Fire in a Changing Climate” Symposium**

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Abstract

The Fish and Wildlife Service has partnered with the Southern Fire Exchange to co-sponsor a three day symposium to be hosted by the Alligator River National Wildlife Refuge in Northeastern North Carolina. The goal of the proposed symposium is to increase the knowledge base for the issues regarding the management of forested wetlands with fire in an environment affected by climate change. A wide audience of local and regional land and resource managers, educators, researchers and planners will benefit from attending or reading the proceedings from this workshop.

Background and purpose

The majority of federal managed wetland habitats along the Atlantic Coast contain wetlands such as marsh, pocosins, swamps and savannahs. In forested wetlands, fire can either improve or damage ecosystem health in these areas depending on how and when it occurs. In some cases refuge managers are hesitant to implement fire as a tool because of the unanswered questions about the short and long range impacts to the wetland ecosystem and wildlife species that are dependent upon them. Stressors due to global climate change such as accelerated sea level rise greatly compound management decisions for wetland resources. Impacts from shoreline erosion, inundation, and salt water intrusion must be weighed along with other change agents such as increased risk of invasions by non-native species, wind damage from storms, and insect and disease outbreaks. Basic questions need to be answered regarding the impacts of wildland fire upon chemical cycling, and net carbon gain or loss in these wetland environments. In order to protect and manage trust species, surrogate species and especially Threatened and Endangered Species, we must seek to understand the direct and indirect impacts from the use of wildland fire as a management tool in wetlands affected by a changing climate.

Study description and location

The symposium was held at the new visitor center at Alligator River National Wildlife Refuge, Manteo, NC (see attached symposium flyer)

Key findings

A website (http://southernfireexchange.org/Web_Event/Events/FWS_Symposium.html) was developed with the help of the Southern Fire Exchange that posted all the summaries of all presentations given at the symposium.

Management implications

Managers will use the information provided by the symposium to make more informed and sound science decisions about fire management of forested wetlands exposed to impacts of climate change such as increased sea level rise.

Relationship to other recent findings and ongoing work on this topic

The FWS and other federal agencies have a desire to address the challenges of climate change and managing forested wetlands along the south atlantic coastal plain. There is evidence of increased

impacts from climate change that are affecting forested ecosystems along the south atlantic coastal plain. This symposium helped managers to focus on what the key issues and topics are that need further investigation through research and study.

Future work needed

A number of topics were suggested by the attendees for future needs and listed during the symposium.

The deliverables

A website was developed with the support of the southern fire exchange:
http://southernfireexchange.org/Web_Event/Events/FWS_Symposium.html