

Friendly Fire ?

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D-10 District Forester

WHY DO WE BURN ?

- ☛ Decrease the fuel load to reduce the risk of a damaging wildfire:

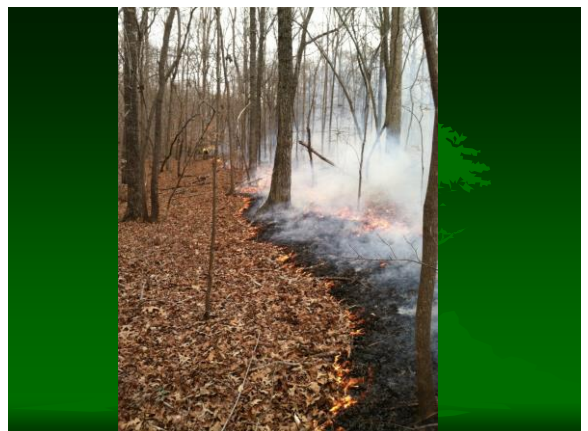


Onslow County Wildfire March 2011
(devastating loss of wildlife observed)



WHY DO WE BURN ?

- ☛ Through hazard reduction burning



Low Intensity Winter Burn To Reduce Fuel Loading



WHY DO WE BURN ?

- ☛ Prepare sites for tree planting





WHY DO WE BURN ?

- ☞ Prepare a seedbed for natural regeneration:



WHY DO WE BURN ?

- ☞ Promote Regeneration:



WHY DO WE BURN ?

- ☞ Improve wildlife habitat:



WHY DO WE BURN ?

- ☞ Control of insects and diseases:



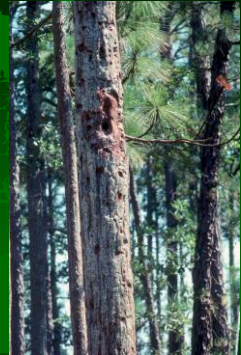
WHY DO WE BURN ?

☞ Control of insects and diseases:



WHY DO WE BURN ?

☞ Promote rare and endangered plant and animal species:



About 75% of the endangered and threatened species in North Carolina require a regular fire regime to reproduce and thrive. An example is the Venus Flytrap. Found only in the Carolinas, this carnivorous plant thrives most when its habitat is burned approximately every 3 years. If the fire return cycle is lengthened and fires are suppressed, Venus Flytrap can be completely lost from a site. (There are 162 species of threatened and endangered plants in NC)

WHY DO WE BURN ?

☞ Improve access:



WHY DO WE BURN ?



WHY DO WE BURN ?



To maintain an ecosystem and control undesirable vegetation

February 24, 2014



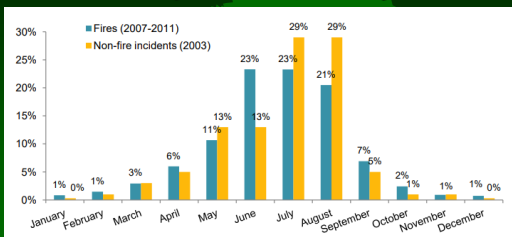
Post Burn



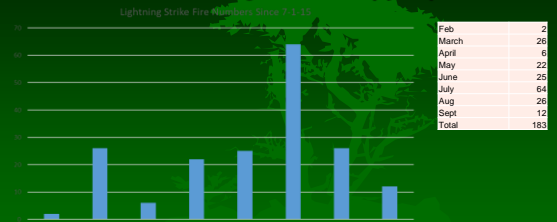
Wake County Harris Lake Park Longleaf Burn 4-08



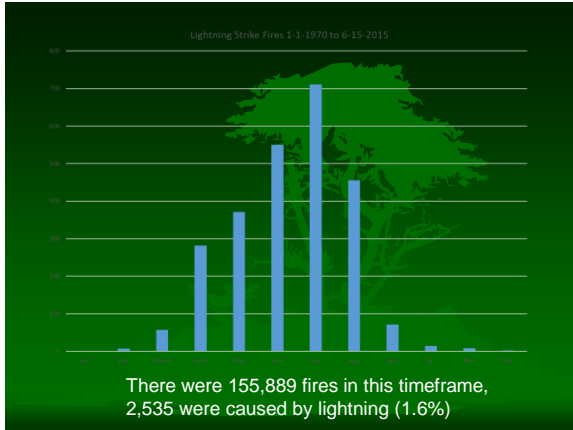
When Did Forests Naturally Burn (Nationwide)?



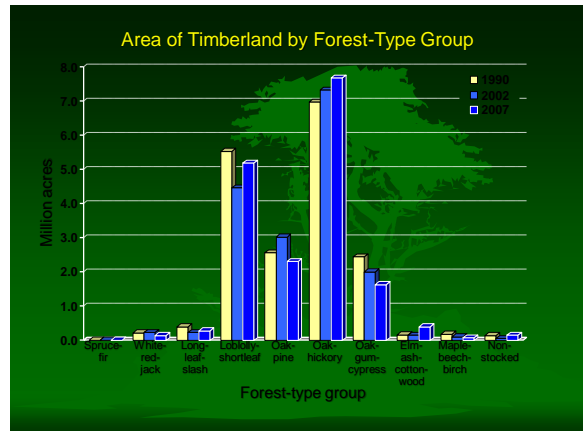
When Did Forests Naturally Burn (NC)



(There were 15,227 fires in this timeframe)



Lightning-related fires are more common in June through August and in the late afternoon and evening.



What did our forests look like before fire suppression?

EFFECTS ON VEGETATION

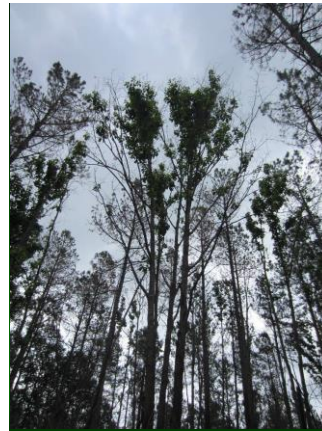
- Fire's ability to kill or injure vegetation depends upon many factors
- Fire Intensity & Season of the Year
- JLESF – Left had several high intensity winter burns / Right had late April burn 1 year prior to this picture



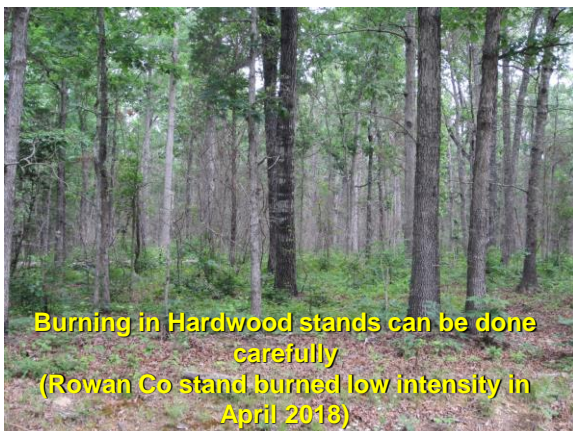
EFFECTS ON VEGETATION

Species Resistance to fire / heat

› Bark Thickness



Crown
Dieback to
Northern Red
Oak after 2
growing
season burns
(tree is on it's
way out)



Burning in Hardwood stands can be done
carefully
(Rowan Co stand burned low intensity in
April 2018)

Effects on Vegetation



Low intensity burn conducted
April 10, 2018 in Randolph
County yielded significant kill
on hardwood stems less than
6 inches in diameter.



Jordan Lake burned in April of 2014 and April of 2017



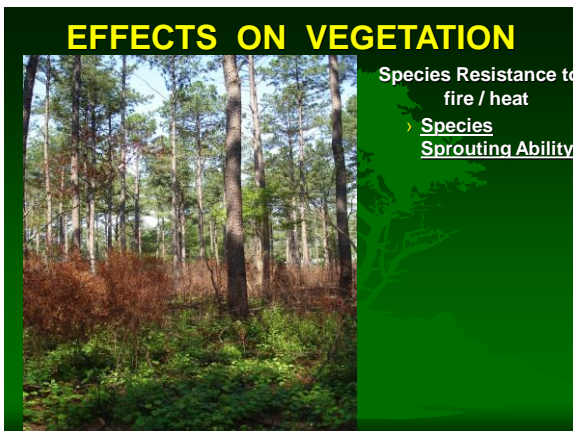
Jordan Lake burned in April 2016 (previous were dormant)



Left never burned / Right burned dormant 2015 and growing season 2019



Same tract as previous slide in lower section



EFFECTS ON VEGETATION

Species Resistance to fire / heat

› Species Sprouting Ability

Why Don't We Do More Growing Season Burning?

- HEAT!!
- Fear of Ips Beetle Infestation / Damage to Trees
- Smoke Management / Air Quality Regulations
- NCFS Training Calendar back in full swing
- Fear of harm to wildlife / ground nesting birds
- Lack of training on how to do it successfully
- We are still tired from all of the burning we did during the dormant season
- Traditional bias or mindset that we burn in the

June 23, 2014 – Harris Lake Longleaf Pine



Researcher finds that Native Americans ignited more fires than lightning



Professor Anna Klimaszewski-Patterson.
(Photo courtesy of Anna Klimaszewski-Patterson)

For lightning-caused wildfires to statistically approximate the pollen record required at least twenty times more ignitions and 870 percent more area burned annually than observed during the modern period (1985–2006), a level of natural fire increase we consider highly improbable. These results demonstrate that (1) anthropogenic burning was likely an important cause of pre-Columbian forest structure.

Benefits of Growing Season Burning (Where Appropriate)

- ☛ Adds more burning days to limited burning opportunities
- ☛ Can provide better woody competition control
- ☛ Better competition control translates into le
- ☛ Mimics historical naturally occurring burning regime
- ☛ In many instances, the burn can be easier to control than dormant season burning (less potential for problems)

