

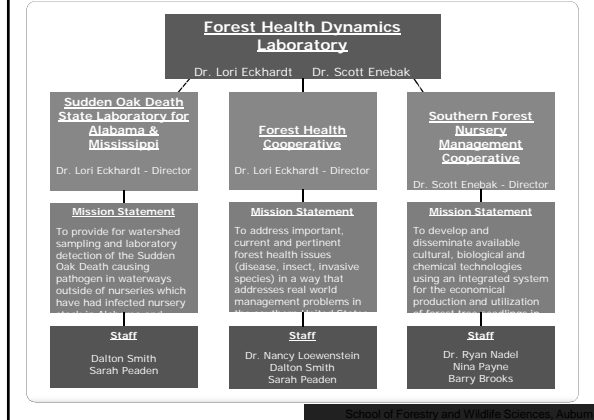
Other Project Updates

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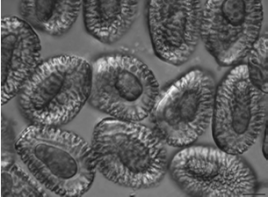
Needle Cast



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







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Coleosporium

5 spore stage rust that requires an alternate host

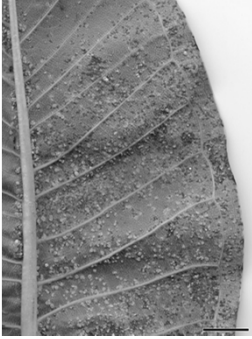
Alternate Hosts Include: *Solidago* spp. (Golden Rod) and Aster

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Coleosporium




Look for teliospores on alternate host.

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RW-19 Update

- Thinning and fertilization study
- Manage density to optimize value in fertilization
- Eight industrial study sites established across different physiographic regions
- Six in the southern US



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RW-19: Treatments

- Thinning
 - 100 TPA
 - 200 TPA
 - 300 TPA
 - 500 TPA
- Fertilization
 - With: 200 lbs N + 25 lbs P
 - Without



Location of RW-19 Plots



Insect Response to Treatments



Louisiana Pre Treatment						
	df	<i>Dendroctonus terebrans</i>	<i>Hylastes</i>	<i>Hyllobius</i>	<i>Ips</i> spp.	<i>Ambrosia</i>
Fertilizer	1	<i>p</i> = 0.566	<i>p</i> = 0.688	<i>p</i> = 0.962	<i>p</i> = 0.378	<i>p</i> = 0.031
Thinning	4	<i>p</i> = 0.111	<i>p</i> = 0.294	<i>p</i> = 0.231	<i>p</i> = 0.320	<i>p</i> = 0.005
Fertilizer x Thinning	4	<i>p</i> = 0.750	<i>p</i> = 0.743	<i>p</i> = 0.251	<i>p</i> = 0.390	<i>p</i> = 0.043

Louisiana Post Treatment						
	df	<i>Dendroctonus terebrans</i>	<i>Hylastes</i>	<i>Hyllobius</i>	<i>Ips</i> spp.	<i>Ambrosia</i>
Fertilizer	1	$p = 0.130$	$p = 0.641$	$p = 0.310$	$p = 0.937$	$p = 0.915$
Thinning	4	$p = 0.137$	$p = 0.0001$	$p = 0.477$	$p = 0.369$	$p = 0.003$
Fertilizer x Thinning	4	$p = 0.843$	$p = 0.188$	$p = 0.350$	$p = 0.634$	$p = 0.664$

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Continuing Work in Florida


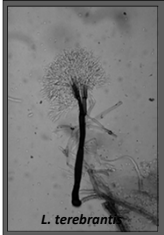
- Tree vigor measurements
- Root sampling



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Any Questions?



L. terebrans *Gnathotrichous materiarius*

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