

Current and Potential Future Habitat, Capability, and Migration

	sq. km	sq. mi	FIA Plots
Area of Region	19,942	7,699.5	614

Species Information

The columns below provide brief summaries of the species associated with the region and described in the table on the next pages. Definitions are provided in the Excel file for this region.

Genus	Species	Abundance		Model		Potential Change in Habitat Suitability		Capability to Cope or Persist		Migration Potential					
				Reliability	Adaptability	Scenario RCP45	Scenario RCP85	Scenario RCP45	Scenario RCP85	SHIFT RCP45	SHIFT RCP85				
Ash	4			High	15	24	Increase	35	36	Very Good	12	12	Likely	0	0
Hickory	7			Medium	34	53	No Change	16	17	Good	15	21	Infill	18	20
Maple	4	Abundant	2	Low	35	10	Decrease	28	26	Fair	14	11	Migrate	0	0
Oak	20	Common	24	FIA	4		New	3	3	Poor	19	16		18	20
Pine	4	Rare	57				Unknown	6	6	Very Poor	17	17			
Other	44	Absent	5							FIA Only	4	4			
	83		88		88	87		88	88	Unknown	2	2			
											83	83			

Potential Changes in Climate Variables

Temperature (°F)

	Scenario	2009	2039	2069	2099	
Annual Average	CCSM45	57.7	59.0	60.4	60.6	
	CCSM85	57.7	59.3	61.2	63.2	
	GFDL45	57.7	60.0	61.0	61.9	
	GFDL85	57.7	59.8	62.1	64.7	
	HAD45	57.7	59.6	61.9	62.7	
	HAD85	57.7	59.8	63.0	66.0	
Growing Season (May—Sep)	CCSM45	68.5	69.7	70.9	71.2	
	CCSM85	68.5	70.0	71.8	74.3	
	GFDL45	68.5	71.1	72.0	73.9	
	GFDL85	68.5	71.1	73.5	76.9	
	HAD45	68.5	70.9	73.1	73.5	
	HAD85	68.5	71.1	75.3	77.8	
Coldest Month (Average)	CCSM45	41.7	43.7	44.5	44.5	
	CCSM85	41.7	43.7	44.7	45.8	
	GFDL45	41.7	44.6	44.7	44.6	
	GFDL85	41.7	42.5	43.4	43.9	
	HAD45	41.7	42.4	43.8	44.4	
	HAD85	41.7	43.4	44.7	46.1	
Warmest Month (Average)	CCSM45	72.2	73.3	73.6	73.7	
	CCSM85	72.2	73.6	74.2	75.5	
	GFDL45	72.2	75.7	75.6	76.9	
	GFDL85	72.2	75.3	76.4	78.7	
	HAD45	72.2	75.3	76.3	76.3	
	HAD85	72.2	75.7	78.0	78.7	

Precipitation (in)

	Scenario	2009	2039	2069	2099	
Annual Total	CCSM45	42.6	42.9	47.4	46.2	
	CCSM85	42.6	44.3	47.5	48.4	
	GFDL45	42.6	45.4	52.7	46.7	
	GFDL85	42.6	45.1	47.7	48.4	
	HAD45	42.6	42.0	42.7	46.0	
	HAD85	42.6	44.4	38.9	41.9	
Growing Season (May—Sep)	CCSM45	15.6	15.8	16.5	16.2	
	CCSM85	15.6	15.0	15.2	15.2	
	GFDL45	15.6	17.4	21.6	18.0	
	GFDL85	15.6	17.7	19.1	19.6	
	HAD45	15.6	15.0	14.9	15.0	
	HAD85	15.6	15.4	11.8	12.1	

NOTE: For the six climate variables, four 30-year periods are used to indicate six potential future trajectories. The period ending in 2009 is based on modeled observations from the PRISM Climate Group and the three future periods were obtained from the NASA NEX-DCP30 dataset. Future climate projections from three models under two emission scenarios show estimates of each climate variable within the region. The three models are CCSM4, GFDL CM3, and HadGEM2-ES and the emission scenarios are the 4.5 and 8.5 RCP. The average value for the region is reported, even though locations within the region may vary substantially based on latitude, elevation, land-use, or other factors.

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HUC 111402 Red-Saline

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Common Name	Scientific Name	Range	MR	%Cell	FIAsum	FIAiv	ChngCl45	ChngCl85	Adap	Abund	Capabil45	Capabil85	SHIFT45	SHIFT85	SSO	N
loblolly pine	Pinus taeda	WDH	High	91.1	4540.0	37.5	No change	Sm. dec.	Medium	Abundant	Good	Fair				1 1
sweetgum	Liquidambar styraciflua	WDH	High	88.8	1134.4	9.7	No change	No change	Medium	Abundant	Good	Good				1 2
water oak	Quercus nigra	WDH	High	76.6	499.3	5.2	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good				1 3
southern red oak	Quercus falcata	WDL	Medium	70	368.3	4.0	Sm. inc.	Lg. inc.	High	Common	Very Good	Very Good				1 4
shortleaf pine	Pinus echinata	WDH	High	52.6	358.3	5.1	Sm. inc.	Sm. inc.	Medium	Common	Good	Good				1 5
willow oak	Quercus phellos	NSL	Low	40.8	265.2	5.8	Sm. inc.	Sm. inc.	Medium	Common	Good	Good				1 6
white oak	Quercus alba	WDH	Medium	58.3	252.9	3.4	No change	No change	High	Common	Good	Good				1 7
post oak	Quercus stellata	WDH	High	58.1	239.6	3.7	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good				1 8
winged elm	Ulmus alata	WDH	Medium	65.5	230.9	2.9	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good				1 9
red maple	Acer rubrum	WDH	High	62.6	229.2	2.7	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good				1 10
cherrybark oak; swamp red o.	Quercus pagoda	NSL	Medium	48.9	209.8	3.6	Sm. inc.	Sm. inc.	Medium	Common	Good	Good				1 11
green ash	Fraxinus pennsylvanica	WSH	Low	46.9	206.1	3.8	Sm. inc.	Sm. inc.	Medium	Common	Good	Good				1 12
blackgum	Nyssa sylvatica	WDL	Medium	58.8	201.3	2.3	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good				1 13
sugarberry	Celtis laevigata	NDH	Medium	19.6	149.9	7.7	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good				1 14
longleaf pine	Pinus palustris	NSH	Medium	9.3	136.6	10.8	No change	No change	Medium	Common	Fair	Fair	Infill +	Infill +		1 15
bold cypress	Taxodium distichum	NSH	Medium	11.6	127.5	9.3	No change	Sm. inc.	Medium	Common	Fair	Good				1 16
pecan	Carya illinoensis	NSH	Low	9.8	111.7	10.2	No change	No change	Low	Common	Poor	Poor				0 17
American hornbeam; musclev	Carpinus caroliniana	WSL	Low	34.6	97.0	2.1	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good				1 18
mockernut hickory	Carya alba	WDL	Medium	37.3	87.9	1.9	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good				1 19
American elm	Ulmus americana	WDH	Medium	24.6	80.1	3.2	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good				1 20
black willow	Salix nigra	NSH	Low	7.1	73.9	11.1	No change	No change	Low	Common	Poor	Poor				0 21
overcup oak	Quercus lyrata	NSL	Medium	15.7	63.1	4.4	Sm. inc.	Lg. inc.	Low	Common	Fair	Good				1 22
slash pine	Pinus elliotii	NDH	High	3.8	60.4	7.7	Sm. inc.	Lg. inc.	Medium	Rare	Fair	Good	Infill +	Infill ++		2 23
water hickory	Carya aquatica	NSL	Medium	10.7	59.7	6.2	No change	No change	Medium	Common	Fair	Fair	Infill +	Infill +		1 24
eastern hophornbeam; ironw	Ostrya virginiana	WSL	Low	28.7	58.5	1.5	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good				1 25
honeylocust	Gleditsia triacanthos	NSH	Low	10.5	55.7	4.5	Sm. inc.	Lg. inc.	High	Common	Very Good	Very Good				1 26
flowering dogwood	Cornus florida	WDL	Medium	35.9	54.2	1.1	Sm. inc.	Sm. inc.	Medium	Common	Good	Good				1 27
eastern cottonwood	Populus deltoides	NSH	Low	2.7	50.0	15.2	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor				0 28
Osage-orange	Maclura pomifera	NDH	Medium	4.9	43.2	10.9	No change	No change	High	Rare	Fair	Fair	Infill +	Infill +		2 29
American holly	Ilex opaca	NSL	Medium	24	43.2	1.4	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good				1 30
American beech	Fagus grandifolia	WDH	High	13.5	43.0	2.1	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++		1 31
black cherry	Prunus serotina	WDL	Medium	33.1	36.6	0.7	Sm. inc.	Lg. inc.	Low	Rare	Poor	Fair				1 32
Nuttall oak	Quercus texana	NSH	Medium	7.4	33.5	5.2	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor				0 33
boxelder	Acer negundo	WSH	Low	7.2	28.9	3.8	Sm. dec.	No change	High	Rare	Poor	Fair	Infill +	Infill +		1 34
sycamore	Platanus occidentalis	NSL	Low	9.4	26.8	4.1	Sm. dec.	No change	Medium	Rare	Very Poor	Poor				1 35
slippery elm	Ulmus rubra	WSL	Low	11.7	26.7	1.7	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++		1 36
white ash	Fraxinus americana	WDL	Medium	22.6	25.5	1.0	Lg. inc.	Lg. inc.	Low	Rare	Fair	Fair				1 37
sweetbay	Magnolia virginiana	NSL	Medium	9	25.4	2.1	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +		1 38
common persimmon	Diospyros virginiana	NSL	Low	18	25.2	1.2	Sm. dec.	Sm. inc.	High	Rare	Poor	Good				1 39
sassafras	Sassafras albidum	WSL	Low	21.9	22.9	0.8	Sm. inc.	Lg. inc.	Medium	Rare	Fair	Good				1 40
water tupelo	Nyssa aquatica	NSH	Medium	4	22.9	4.4	Sm. dec.	Sm. dec.	Low	Rare	Very Poor	Very Poor				2 41
blackjack oak	Quercus marilandica	NSL	Medium	12	21.4	1.4	Lg. inc.	Lg. inc.	High	Rare	Good	Good	Infill ++	Infill ++		1 42
Shumard oak	Quercus shumardii	NSL	Low	4.9	20.5	3.6	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor	Infill +	Infill +		2 43
pignut hickory	Carya glabra	WDL	Medium	12.5	19.3	1.2	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor				0 44
black oak	Quercus velutina	WDH	High	9.5	18.8	1.8	Sm. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor				0 45
eastern redcedar	Juniperus virginiana	WDH	Medium	11.1	16.6	1.2	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++		1 46
florida maple	Acer barbatum	NSL	Low	5.7	16.3	1.9	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor				1 47



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shagbark hickory	<i>Carya ovata</i>	WSL	Medium	9	13.9	1.2	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor				0 48
swamp chestnut oak	<i>Quercus michauxii</i>	NSL	Low	7.4	12.9	1.5	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +		1 49
cedar elm	<i>Ulmus crassifolia</i>	NDH	Medium	6	12.5	2.7	Lg. inc.	Lg. inc.	Low	Rare	Fair	Fair	Infill +	Infill +		2 50
swamp tupelo	<i>Nyssa biflora</i>	NDH	Medium	1.9	12.1	3.7	No change	No change	Low	Rare	Very Poor	Very Poor				2 51
waterlocust	<i>Gleditsia aquatica</i>	NSLX	FIA	2.5	11.1	4.4	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only				0 52
laurel oak	<i>Quercus laurifolia</i>	NDH	Medium	5	10.0	1.6	Sm. inc.	Lg. inc.	Medium	Rare	Fair	Good	Infill +	Infill ++		1 53
water elm	<i>Planera aquatica</i>	NSL	Low	4	9.7	3.4	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +		1 54
southern magnolia	<i>Magnolia grandiflora</i>	NSL	Low	4	8.0	1.1	Sm. inc.	Sm. inc.	Medium	Rare	Fair	Fair	Infill +	Infill +		2 55
black locust	<i>Robinia pseudoacacia</i>	NDH	Low	1.5	7.5	5.0	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor				0 56
bitternut hickory	<i>Carya cordiformis</i>	WSL	Low	2.1	6.6	1.3	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor				0 57
eastern redbud	<i>Cercis canadensis</i>	NSL	Low	5.2	6.0	1.0	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor				0 58
northern red oak	<i>Quercus rubra</i>	WDH	Medium	2.5	5.0	0.6	Lg. dec.	Lg. dec.	High	Rare	Poor	Poor				0 59
black hickory	<i>Carya texana</i>	NDL	High	4.9	4.9	0.6	Sm. inc.	Lg. inc.	Medium	Rare	Fair	Good	Infill +	Infill ++		2 60
river birch	<i>Betula nigra</i>	NSL	Low	1	4.6	0.6	Sm. inc.	Sm. inc.	Medium	Rare	Fair	Fair	Infill +	Infill +		2 61
pin cherry	<i>Prunus pensylvanica</i>	NSL	Low	4.7	4.6	0.8	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor				0 62
red mulberry	<i>Morus rubra</i>	NSL	Low	8	4.0	0.7	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor				0 63
redbay	<i>Persea borbonia</i>	NSL	Low	2.3	2.5	0.7	Sm. dec.	No change	High	Rare	Poor	Fair				0 64
black walnut	<i>Juglans nigra</i>	WDH	Low	1.5	2.4	1.6	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor				0 65
swamp white oak	<i>Quercus bicolor</i>	NSL	Low	0.9	2.2	2.2	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor				0 66
sourwood	<i>Oxydendrum arboreum</i>	NDL	High	1.8	2.1	0.9	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor				0 67
wild plum	<i>Prunus americana</i>	NSLX	FIA	0.7	1.3	0.2	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only				0 68
cittamwood/gum bumelia	<i>Sideroxylon lanuginosum ssp.</i>	NSL	Low	0.8	1.2	1.1	Lg. inc.	Lg. inc.	High	Rare	Good	Good				2 69
American basswood	<i>Tilia americana</i>	WSL	Medium	1.3	1.0	0.5	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor				0 70
bluejack oak	<i>Quercus incana</i>	NSL	Low	1.4	0.9	0.4	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost				0 71
sugar maple	<i>Acer saccharum</i>	WDH	High	1	0.9	0.8	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor				0 72
black ash	<i>Fraxinus nigra</i>	WSH	Medium	0.5	0.4	0.8	No change	No change	Low	Rare	Very Poor	Very Poor				0 73
hackberry	<i>Celtis occidentalis</i>	WDH	Medium	0.1	0.3	0.1	Very Lg. dec.	Very Lg. dec.	High	Rare	Lost	Lost				0 74
serviceberry	<i>Amelanchier spp.</i>	NSL	Low	0.5	0.3	0.6	Sm. inc.	No change	Medium	Rare	Fair	Poor				0 75
ogechee tupelo	<i>Nyssa ogeche</i>	NSLX	FIA	0.3	0.3	0.3	Unknown	Unknown	Low	Rare	FIA Only	FIA Only				0 76
chinkapin oak	<i>Quercus muehlenbergii</i>	NSL	Medium	0	0.3	0.1	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor				0 77
live oak	<i>Quercus virginiana</i>	NDH	High	0.5	0.3	0.5	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good				2 78
scarlet oak	<i>Quercus coccinea</i>	WDL	Medium	0.4	0.2	0.4	No change	Sm. dec.	Medium	Rare	Poor	Very Poor				0 79
silverbell	<i>Halesia spp.</i>	NSL	Low	0.5	0.2	0.4	No change	No change	Medium	Rare	Poor	Poor				0 80
pawpaw	<i>Asimina triloba</i>	NSL	Low	0.4	0.1	0.2	Sm. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor				0 81
Carolina ash	<i>Fraxinus caroliniana</i>	NSL	FIA	0.5	0.1	0.2	Unknown	Unknown	NA	Rare	FIA Only	FIA Only				0 82
chestnut oak	<i>Quercus prinus</i>	NDH	High	0.5	0.1	0.2	Lg. dec.	Lg. dec.	High	Rare	Poor	Poor				0 83
striped maple	<i>Acer pensylvanicum</i>	NSL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat				3 84
shellbark hickory	<i>Carya laciniosa</i>	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown				0 85
yellow-poplar	<i>Liriodendron tulipifera</i>	WDH	High	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat				3 86
cucumbertree	<i>Magnolia acuminata</i>	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown				0 87
bigleaf magnolia	<i>Magnolia macrophylla</i>	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat				3 88