

	sq. km	sq. mi	FIA Plots
Area of Region	8,244.0	3,183.0	236

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	12	17	Increase	22	24	Very Good	6	9	Likely	0	0
Hickory	2			Medium	32	41	No Change	6	6	Good	14	12	Infill	19	25
Maple	1	Abundant	2	Low	26	13	Decrease	23	21	Fair	5	5	Migrate	0	2
Oak	13	Common	17	FIA	3		New	6	6	Poor	9	11		19	27
Pine	4	Rare	35				Unknown	16	16	Very Poor	8	6			
Other	30	Absent	16					73	73	FIA Only	3	3			
	54		70		73	71				Unknown	13	13			
											58	59			

Potential Changes in Climate Variables

Temperature (°F)

	Scenario	2009	2039	2069	2099	
Annual Average	CCSM45	67.0	68.4	70.2	70.1	
	CCSM85	67.0	68.6	70.8	73.1	
	GFDL45	67.0	70.0	71.4	72.2	
	GFDL85	67.0	69.5	72.4	75.8	
	HAD45	67.0	68.8	71.2	72.5	
	HAD85	67.0	69.3	72.1	75.7	
Growing Season (May—Sep)	CCSM45	78.1	79.2	80.6	80.8	
	CCSM85	78.1	79.3	81.5	84.1	
	GFDL45	78.1	81.0	82.2	83.3	
	GFDL85	78.1	80.6	83.4	87.2	
	HAD45	78.1	80.6	82.6	84.0	
	HAD85	78.1	80.8	84.6	87.8	
Coldest Month (Average)	CCSM45	50.0	52.2	53.1	52.8	
	CCSM85	50.0	51.8	52.9	54.2	
	GFDL45	50.0	52.6	53.0	53.6	
	GFDL85	50.0	52.2	53.3	54.1	
	HAD45	50.0	49.8	51.0	51.8	
	HAD85	50.0	50.6	51.5	53.1	
Warmest Month (Average)	CCSM45	81.4	82.7	83.6	83.7	
	CCSM85	81.4	82.8	84.1	85.6	
	GFDL45	81.4	83.4	84.2	84.9	
	GFDL85	81.4	83.6	85.0	87.1	
	HAD45	81.4	84.3	85.3	85.9	
	HAD85	81.4	84.5	86.7	88.1	

Precipitation (in)

	Scenario	2009	2039	2069	2099	
Annual Total	CCSM45	49.3	52.3	53.8	54.9	
	CCSM85	49.3	51.6	53.8	54.6	
	GFDL45	49.3	57.2	58.0	60.2	
	GFDL85	49.3	54.3	61.1	59.6	
	HAD45	49.3	46.7	45.2	49.2	
	HAD85	49.3	47.0	45.1	44.6	
Growing Season (May—Sep)	CCSM45	26.7	28.7	28.7	29.1	
	CCSM85	26.7	27.6	29.7	29.4	
	GFDL45	26.7	32.9	33.1	34.2	
	GFDL85	26.7	31.5	36.4	36.0	
	HAD45	26.7	25.4	23.9	24.1	
	HAD85	26.7	24.7	21.6	20.6	

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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Current and Potential Future Habitat, Capability, and Migration

Common Name	Scientific Name	Range	MR	%Cell	FIAsum	FIAiv	ChngCl45	ChngCl85	Adap	Abund	Capabil45	Capabil85	SHIFT45	SHIFT85	SSO	N
slash pine	Pinus elliottii	NDH	High	78.6	2794.7	39.2	No change	Sm. dec.	Medium	Abundant	Good	Fair	Infill ++	Infill +	1	1
loblolly pine	Pinus taeda	WDH	High	68.5	1618.2	25.6	No change	No change	Medium	Abundant	Good	Good	Infill ++	Infill ++	1	2
swamp tupelo	Nyssa biflora	NDH	Medium	59.1	425.4	7.4	Sm. inc.	Sm. inc.	Low	Common	Fair	Fair	Infill +	Infill +	1	3
red maple	Acer rubrum	WDH	High	72.2	414.0	6.2	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good	Infill ++	Infill ++	1	4
laurel oak	Quercus laurifolia	NDH	Medium	74.3	402.9	6.4	Sm. inc.	Sm. inc.	Medium	Common	Good	Good	Infill ++	Infill ++	1	5
water oak	Quercus nigra	WDH	High	60.3	308.2	5.8	Sm. inc.	Lg. inc.	Medium	Common	Good	Very Good	Infill ++	Infill ++	1	6
sweetgum	Liquidambar styraciflua	WDH	High	60.2	296.8	5.5	Sm. inc.	Sm. inc.	Medium	Common	Good	Good	Infill ++	Infill ++	1	7
live oak	Quercus virginiana	NDH	High	45.8	261.9	7.3	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good	Infill ++	Infill ++	1	8
longleaf pine	Pinus palustris	NSH	Medium	26	240.4	11.0	Sm. inc.	Lg. inc.	Medium	Common	Good	Very Good	Infill ++	Infill ++	1	9
loblolly-bay	Gordonia lasianthus	NSH	Medium	37.8	191.7	5.8	Sm. inc.	Sm. inc.	Medium	Common	Good	Good	Infill ++	Infill ++	1	10
pond cypress	Taxodium ascendens	NSH	Medium	31.3	132.6	4.2	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good	Infill ++	Infill ++	2	11
green ash	Fraxinus pennsylvanica	WSH	Low	20.6	122.3	5.9	Sm. inc.	Sm. inc.	Medium	Common	Good	Good	Infill ++	Infill ++	1	12
redbay	Persea borbonia	NSL	Low	53.1	119.8	2.7	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good	Infill ++	Infill ++	1	13
sweetbay	Magnolia virginiana	NSL	Medium	40.4	111.8	3.0	Sm. inc.	Lg. inc.	Medium	Common	Good	Very Good	Infill ++	Infill ++	1	14
bald cypress	Taxodium distichum	NSH	Medium	18.2	96.2	5.3	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good	Infill ++	Infill ++	2	15
pumpkin ash	Fraxinus profunda	NSH	FIA	4.3	64.6	7.7	Unknown	Unknown	NA	Common	FIA Only	FIA Only			0	16
cabbage palmetto	Sabal palmetto	NDH	Medium	15.9	55.8	3.2	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			0	17
water tupelo	Nyssa aquatica	NSH	Medium	8.5	55.1	6.5	Sm. dec.	Sm. dec.	Low	Common	Poor	Poor			0	18
eastern redcedar	Juniperus virginiana	WDH	Medium	8.8	52.6	7.5	Sm. dec.	Sm. dec.	Medium	Common	Poor	Poor	Infill +	Infill +	2	19
black willow	Salix nigra	NSH	Low	11.4	49.5	4.6	Sm. dec.	No change	Low	Rare	Very Poor	Very Poor			0	20
pond pine	Pinus serotina	NSH	Medium	15.1	40.6	3.6	Lg. inc.	Lg. inc.	Low	Rare	Fair	Fair	Infill +	Infill +	2	21
turkey oak	Quercus laevis	NSH	Medium	6	32.5	5.4	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor			0	22
blackgum	Nyssa sylvatica	WDL	Medium	12.2	23.5	1.8	Lg. inc.	Lg. inc.	High	Rare	Good	Good	Infill ++	Infill ++	2	23
pignut hickory	Carya glabra	WDL	Medium	2.3	19.0	7.4	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	24
southern red oak	Quercus falcata	WDL	Medium	4.9	12.9	2.7	No change	Sm. inc.	High	Rare	Fair	Good	Infill +	Infill ++	2	25
yellow-poplar	Liriodendron tulipifera	WDH	High	3.6	12.4	3.4	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor			0	26
Shumard oak	Quercus shumardii	NSL	Low	2.3	11.1	4.5	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor			0	27
winged elm	Ulmus alata	WDL	Medium	4.8	10.7	2.2	No change	Sm. inc.	Medium	Rare	Poor	Fair		Infill +	2	28
river birch	Betula nigra	NSL	Low	2.4	10.0	4.1	Sm. dec.	No change	Medium	Rare	Very Poor	Poor		Infill +	2	29
American elm	Ulmus americana	WDH	Medium	4.3	9.9	1.5	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	30
southern magnolia	Magnolia grandiflora	NSL	Low	9.2	9.8	1.1	No change	No change	Medium	Rare	Poor	Poor		Infill +	2	31
American holly	Ilex opaca	NSL	Medium	13.5	9.6	0.9	Sm. dec.	No change	Medium	Rare	Very Poor	Poor		Infill +	2	32
post oak	Quercus stellata	WDH	High	6	9.0	1.5	Sm. inc.	Lg. inc.	High	Rare	Good	Good			2	33
black cherry	Prunus serotina	WDL	Medium	10.2	8.8	2.0	Lg. inc.	Lg. inc.	Low	Rare	Fair	Fair		Infill +	2	34
ogeechee tupelo	Nyssa ogechee	NSLX	FIA	3.6	7.9	2.2	Unknown	Unknown	Low	Rare	FIA Only	FIA Only			0	35
Carolina ash	Fraxinus caroliniana	NSL	FIA	2.4	7.3	3.0	Unknown	Unknown	NA	Rare	FIA Only	FIA Only			0	36
white oak	Quercus alba	WDH	Medium	2.4	6.9	2.9	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor		Infill +	2	37
sugarberry	Celtis laevigata	NDH	Medium	3.6	5.5	1.5	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	38
overcup oak	Quercus lyrata	NSL	Medium	2.4	4.2	1.7	No change	No change	Low	Rare	Very Poor	Very Poor			2	39
common persimmon	Diospyros virginiana	NSL	Low	6.1	4.0	0.7	Lg. dec.	Lg. dec.	High	Rare	Poor	Poor			0	40
red mulberry	Morus rubra	NSL	Low	2.4	3.9	1.6	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	41
swamp chestnut oak	Quercus michauxii	NSL	Low	3.6	3.5	1.0	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	42
American hornbeam; muscley	Carpinus caroliniana	WSL	Low	3.6	3.4	0.9	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	43
bluejack oak	Quercus incana	NSL	Low	3.6	3.1	0.9	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost			0	44
willow oak	Quercus phellos	NSL	Low	1.2	2.6	2.2	Sm. inc.	Lg. inc.	Medium	Rare	Fair	Good			2	45
flowering dogwood	Cornus florida	WDL	Medium	2.3	1.5	0.6	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost			0	46
chinkapin oak	Quercus muehlenbergii	NSL	Medium	1.2	1.4	1.2	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	47

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Common Name	Scientific Name	Range	MR	%Cell	FIAsum	FIAiv	ChngCl45	ChngCl85	Adap	Abund	Capabil45	Capabil85	SHIFT45	SHIFT85	SSO	N		
honeylocust	Gleditsia triacanthos	NSH	Low	1.2	1.3	1.0	Very Lg. dec.	Very Lg. dec.	High	Rare	Lost	Lost				0	48	
eastern redbud	Cercis canadensis	NSL	Low	1.1	1.2	0.8	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost					0	49
eastern hophornbeam; ironw	Ostrya virginiana	WSL	Low	2.4	1.2	0.5	Very Lg. dec.	Lg. dec.	High	Rare	Lost	Poor					0	50
sycamore	Platanus occidentalis	NSL	Low	1.1	1.1	0.8	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost					0	51
white ash	Fraxinus americana	WDL	Medium	2.4	0.8	0.3	Very Lg. dec.	Very Lg. dec.	Low	Rare	Lost	Lost					0	52
mockernut hickory	Carya alba	WDL	Medium	1.2	0.7	0.6	Very Lg. dec.	Very Lg. dec.	High	Rare	Lost	Lost					0	53
slippery elm	Ulmus rubra	WSL	Low	1.2	0.6	0.5	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost					0	54
sand pine	Pinus clausa	NDH	High	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat					3	55
shortleaf pine	Pinus echinata	WDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +			3	56
striped maple	Acer pensylvanicum	NSL	Medium	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown					0	57
cittamwood/gum bumelia	Sideroxylon lanuginosum ssp.	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat					0	58
bitternut hickory	Carya cordiformis	WSL	Low	0	0	0	Unknown	Unknown	High	Modeled	Unknown	Unknown					0	59
pecan	Carya illinoensis	NSH	Low	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat					3	60
shellbark hickory	Carya laciniosa	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown					0	61
shagbark hickory	Carya ovata	WSL	Medium	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown					0	62
bigleaf magnolia	Magnolia macrophylla	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown					0	63
mountain or Fraser magnolia	Magnolia fraseri	NSL	Low	0	0	0	Unknown	Unknown	Low	Absent	Unknown	Unknown					0	64
sourwood	Oxydendrum arboreum	NDL	High	0	0	0	Unknown	Unknown	High	Absent	Unknown	Unknown					0	65
scarlet oak	Quercus coccinea	WDL	Medium	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown					0	66
cherrybark oak; swamp red o.	Quercus pagoda	NSL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +			3	67
blackjack oak	Quercus marilandica	NSL	Medium	0	0	0	Unknown	Unknown	High	Modeled	Unknown	Unknown					0	68
black oak	Quercus velutina	WDH	High	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown					0	69
black locust	Robinia pseudoacacia	NDH	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown					0	70
sassafras	Sassafras albidum	WSL	Low	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown					0	71
American mountain-ash	Sorbus americana	NSL	Low	0	0	0	Unknown	Unknown	Low	Absent	Unknown	Unknown					0	72
cedar elm	Ulmus crassifolia	NDH	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat					0	73