

	sq. km	sq. mi	FIA Plots
Area of Region	8,179.0	3,157.9	238

### 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	3				Increase	21	27	Very Good	8	8	Likely	0	1		
Hickory	3				No Change	9	5	Good	12	16	Infill	14	18		
Maple	2	Abundant	4	High	14	17	Decrease	22	20	Fair	8	10	Migrate	2	5
Oak	15	Common	17	Medium	33	46	New	9	11	Poor	9	6			
Pine	6	Rare	33	Low	27	11	Unknown	15	13	Very Poor	10	8			
Other	25	Absent	17	FIA	2					FIA Only	2	2			
	<b>54</b>		<b>71</b>		<b>76</b>	<b>74</b>				<b>62</b>	<b>61</b>		<b>16</b>	<b>24</b>	

### Potential Changes in Climate Variables

#### Temperature (°F)

Scenario	2009	2039	2069	2099		
Annual	CCSM45	62.6	64.0	65.8	65.8	
Average	CCSM85	62.6	64.3	66.4	68.9	
	GFDL45	62.6	65.4	67.2	68.1	
	GFDL85	62.6	65.2	68.3	71.7	
	HAD45	62.6	64.2	66.7	67.9	
	HAD85	62.6	64.5	67.3	70.9	
Growing Season	CCSM45	75.6	77.0	78.4	78.7	
	CCSM85	75.6	77.0	79.2	82.0	
May—Sep	GFDL45	75.6	78.6	80.6	81.8	
	GFDL85	75.6	78.6	81.9	85.6	
	HAD45	75.6	77.6	79.7	81.1	
	HAD85	75.6	77.7	81.0	84.5	
Coldest Month	CCSM45	42.8	45.2	45.9	46.2	
Average	CCSM85	42.8	45.1	46.0	47.3	
	GFDL45	42.8	46.1	46.4	47.2	
	GFDL85	42.8	44.7	45.7	46.8	
	HAD45	42.8	43.1	44.8	45.2	
	HAD85	42.8	43.5	44.7	46.2	
Warmest Month	CCSM45	80.3	81.6	82.3	82.3	
Average	CCSM85	80.3	81.7	83.1	84.3	
	GFDL45	80.3	82.7	83.7	84.6	
	GFDL85	80.3	83.3	84.9	87.0	
	HAD45	80.3	82.5	83.7	84.2	
	HAD85	80.3	82.7	84.6	86.5	

#### Precipitation (in)

Scenario	2009	2039	2069	2099		
Annual	CCSM45	53.9	58.7	60.1	59.7	
Total	CCSM85	53.9	59.4	60.3	66.0	
	GFDL45	53.9	57.4	60.1	63.0	
	GFDL85	53.9	56.3	61.1	60.4	
	HAD45	53.9	56.2	55.6	54.7	
	HAD85	53.9	58.5	54.1	51.3	
Growing Season	CCSM45	27.7	33.0	33.4	33.2	
	CCSM85	27.7	31.3	32.9	35.8	
May—Sep	GFDL45	27.7	29.3	31.3	33.3	
	GFDL85	27.7	28.5	32.4	32.9	
	HAD45	27.7	28.7	27.9	25.9	
	HAD85	27.7	29.9	26.0	22.4	

**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
loblolly pine	Pinus taeda	WDH	High	79.6	3686.6	34.3	No change	No change	Medium	Abundant	Good	Good			1	1
pond pine	Pinus serotina	NSH	Medium	49.2	1274.1	23.0	Sm. dec.	Sm. dec.	Low	Abundant	Fair	Fair			0	2
red maple	Acer rubrum	WDH	High	79.3	983.4	10.5	No change	No change	High	Abundant	Very Good	Very Good			1	3
sweetgum	Liquidambar styraciflua	WDH	High	74	915.7	10.6	No change	No change	Medium	Abundant	Good	Good			1	4
swamp tupelo	Nyssa biflora	NDH	Medium	52.8	381.3	5.5	Sm. inc.	Sm. inc.	Low	Common	Fair	Fair			1	5
redbay	Persea borbonia	NSL	Low	69.7	348.9	3.7	No change	Sm. dec.	High	Common	Good	Fair			1	6
loblolly-bay	Gordonia lasianthus	NSH	Medium	26.2	280.6	8.9	Sm. dec.	Sm. dec.	Medium	Common	Poor	Poor			0	7
green ash	Fraxinus pennsylvanica	WSH	Low	19.7	168.2	8.5	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	8
yellow-poplar	Liriodendron tulipifera	WDH	High	26.7	158.3	4.9	Sm. dec.	Sm. dec.	High	Common	Fair	Fair			1	9
pond cypress	Taxodium ascendens	NSH	Medium	7.5	157.3	17.3	No change	No change	Medium	Common	Fair	Fair	Infill +	Infill +	2	10
water oak	Quercus nigra	WDH	High	42.7	151.7	2.8	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	11
sweetbay	Magnolia virginiana	NSL	Medium	44.5	149.8	2.6	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	12
bald cypress	Taxodium distichum	NSH	Medium	10.6	117.3	5.9	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good	Infill ++	Infill ++	1	13
longleaf pine	Pinus palustris	NSH	Medium	13.6	95.4	6.9	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good	Infill ++	Infill ++	1	14
Atlantic white-cedar	Chamaecyparis thyoides	NSH	Low	9.8	92.7	7.8	Sm. dec.	Sm. dec.	Low	Common	Poor	Poor	Infill +	Infill +	0	15
American holly	Ilex opaca	NSL	Medium	31.8	92.7	2.4	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	16
slash pine	Pinus elliotii	NDH	High	3.1	82.0	22.1	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good	Infill ++	Infill ++	2	17
pumpkin ash	Fraxinus profunda	NSH	FIA	8	80.0	8.4	Unknown	Unknown	NA	Common	FIA Only	FIA Only			0	18
southern red oak	Quercus falcata	WDL	Medium	16.2	72.9	3.0	Sm. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	19
laurel oak	Quercus laurifolia	NDH	Medium	16.8	70.0	2.4	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	20
American hornbeam; muscle	Carpinus caroliniana	WSL	Low	16.2	61.3	3.1	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	21
eastern redcedar	Juniperus virginiana	WDH	Medium	4.3	46.7	6.4	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	22
blackgum	Nyssa sylvatica	WDL	Medium	18.5	43.5	2.2	Lg. inc.	Lg. inc.	High	Rare	Good	Good			1	23
black willow	Salix nigra	NSH	Low	7.1	41.6	5.7	No change	No change	Low	Rare	Very Poor	Very Poor			0	24
white oak	Quercus alba	WDH	Medium	12.1	41.6	2.8	Sm. inc.	Lg. inc.	High	Rare	Good	Good	Infill ++	Infill ++	1	25
American elm	Ulmus americana	WDH	Medium	14.2	39.8	2.7	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	1	26
sourwood	Oxydendrum arboreum	NDL	High	16.5	39.2	1.9	Lg. dec.	Lg. dec.	High	Rare	Poor	Poor			1	27
slippery elm	Ulmus rubra	WSL	Low	9.2	31.1	3.1	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	28
flowering dogwood	Cornus florida	WDL	Medium	10.6	24.3	1.6	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	29
willow oak	Quercus phellos	NSL	Low	11.8	21.5	1.9	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	1	30
swamp chestnut oak	Quercus michauxii	NSL	Low	11.4	19.8	1.5	No change	Lg. inc.	Medium	Rare	Poor	Good	Infill +	Infill ++	1	31
live oak	Quercus virginiana	NDH	High	2.1	17.7	3.1	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	32
mockernut hickory	Carya alba	WDL	Medium	3.4	15.9	1.8	No change	Sm. inc.	High	Rare	Fair	Good	Infill +	Infill ++	2	33
post oak	Quercus stellata	WDH	High	9.5	14.3	1.6	Lg. dec.	Lg. inc.	High	Rare	Poor	Good	Infill +	Infill ++	2	34
Virginia pine	Pinus virginiana	NDH	High	2.2	11.6	4.2	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	35
Carolina ash	Fraxinus caroliniana	NSL	FIA	2.4	9.5	3.9	Unknown	Unknown	NA	Rare	FIA Only	FIA Only			0	36
pecan	Carya illinoensis	NSH	Low	1.2	8.3	6.8	Sm. dec.	Lg. inc.	Low	Rare	Very Poor	Fair		Infill +	2	37
cherrybark oak; swamp red o	Quercus pagoda	NSL	Medium	3.5	5.6	1.5	Sm. inc.	Lg. inc.	Medium	Rare	Fair	Good		Infill ++	2	38
black oak	Quercus velutina	WDH	High	1.9	4.9	1.2	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	39
shortleaf pine	Pinus echinata	WDH	High	1.2	4.8	3.9	Sm. dec.	Lg. inc.	Medium	Rare	Very Poor	Good			2	40
river birch	Betula nigra	NSL	Low	1.2	3.6	2.9	No change	Sm. inc.	Medium	Rare	Poor	Fair		Infill +	2	41
blackjack oak	Quercus marilandica	NSL	Medium	2.5	3.4	0.8	Very Lg. dec.	Very Lg. dec.	High	Rare	Lost	Lost			0	42
common persimmon	Diospyros virginiana	NSL	Low	4.9	3.2	0.7	Very Lg. dec.	Sm. dec.	High	Rare	Lost	Poor		Infill +	2	43
water tupelo	Nyssa aquatica	NSH	Medium	0.6	3.1	1.2	Lg. inc.	Lg. inc.	Low	Rare	Fair	Fair	Infill +	Infill +	2	44
pignut hickory	Carya glabra	WDL	Medium	2.3	3.0	1.2	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	45
black cherry	Prunus serotina	WDL	Medium	8.5	2.9	0.5	Lg. inc.	Lg. inc.	Low	Rare	Fair	Fair	Infill +	Infill +	1	46
Shumard oak	Quercus shumardii	NSL	Low	1.1	2.5	1.9	Lg. dec.	Lg. dec.	High	Rare	Poor	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	
scarlet oak	Quercus coccinea	WDL	Medium	1.9	2.4	0.8	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost				0	48
overcup oak	Quercus lyrata	NSL	Medium	2.4	2.0	0.8	Sm. inc.	Lg. inc.	Low	Rare	Poor	Fair	Infill +	Infill +		2	49
sassafras	Sassafras albidum	WSL	Low	2.4	1.6	0.6	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost				0	50
American beech	Fagus grandifolia	WDH	High	2.1	1.5	0.6	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost				0	51
turkey oak	Quercus laevis	NSH	Medium	1.1	0.8	0.6	Lg. inc.	Lg. inc.	High	Rare	Good	Good				2	52
red mulberry	Morus rubra	NSL	Low	1.2	0.6	0.5	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor				0	53
boxelder	Acer negundo	WSH	Low	1.2	0.2	0.2	Lg. dec.	Lg. dec.	High	Rare	Poor	Poor				0	54
sand pine	Pinus clausa	NDH	High	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat				3	55
spruce pine	Pinus glabra	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat				3	56
florida maple	Acer barbatum	NSL	Low	0	0	0	Unknown	Unknown	High	Modeled	Unknown	Unknown				0	57
striped maple	Acer pensylvanicum	NSL	Medium	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown				0	58
serviceberry	Amelanchier spp.	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat				3	59
pawpaw	Asimina triloba	NSL	Low	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown				0	60
water hickory	Carya aquatica	NSL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate +		3	61
shellbark hickory	Carya laciniosa	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown				0	62
sugarberry	Celtis laevigata	NDH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate ++		3	63
white ash	Fraxinus americana	WDL	Medium	0	0	0	Unknown	Unknown	Low	Modeled	Unknown	Unknown				0	64
silverbell	Halesia spp.	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown				0	65
Osage-orange	Maclura pomifera	NDH	Medium	0	0	0	Unknown	Unknown	High	Modeled	Unknown	Unknown				0	66
southern magnolia	Magnolia grandiflora	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate +		3	67
bigleaf magnolia	Magnolia macrophylla	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown				0	68
eastern hophornbeam; ironw	Ostrya virginiana	WSL	Low	0	0	0	Unknown	New Habitat	High	Absent	Unknown	New Habitat		Likely +		3	69
pin cherry	Prunus pensylvanica	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown				0	70
swamp white oak	Quercus bicolor	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown				0	71
chinkapin oak	Quercus muehlenbergii	NSL	Medium	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown				0	72
bluejack oak	Quercus incana	NSL	Low	0	0	0	Unknown	New Habitat	Medium	Absent	Unknown	New Habitat		Migrate +		3	73
cabbage palmetto	Sabal palmetto	NDH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat				0	74
winged elm	Ulmus alata	WDL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate ++		3	75
cedar elm	Ulmus crassifolia	NDH	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat				0	76