

	sq. km	sq. mi	FIA Plots
Area of Region	8,602.9	3,321.6	57

**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	1			High	10	12	Increase	15	21	Very Good	1	0	Likely	9	10
Hickory	4			Medium	28	40	No Change	16	10	Good	9	16	Infill	19	22
Maple	2	Abundant	0	Low	23	9	Decrease	6	6	Fair	12	10	Migrate	3	2
Oak	10	Common	9	FIA	0		New	13	15	Poor	9	7			
Pine	1	Rare	28				Unknown	11	9	Very Poor	6	4			
Other	19	Absent	21							FIA Only	0	0			
	<b>37</b>		<b>58</b>		<b>61</b>	<b>61</b>		<b>61</b>	<b>61</b>	Unknown	11	9			
											<b>48</b>	<b>46</b>			

**Potential Changes in Climate Variables**

**Temperature (°F)**

	Scenario	2009	2039	2069	2099	
Annual Average	CCSM45	68.8	70.2	71.8	72.0	
	CCSM85	68.8	70.5	72.7	74.8	
	GFDL45	68.8	73.3	72.9	73.7	
	GFDL85	68.8	71.1	74.1	77.3	
	HAD45	68.8	70.8	73.3	74.3	
	HAD85	68.8	71.0	74.1	77.5	
Growing Season (May—Sep)	CCSM45	80.2	81.4	82.5	82.9	
	CCSM85	80.2	81.5	83.6	86.0	
	GFDL45	80.2	85.3	84.3	85.9	
	GFDL85	80.2	82.8	85.8	89.5	
	HAD45	80.2	82.7	84.8	85.5	
	HAD85	80.2	82.7	86.6	89.5	
Coldest Month (Average)	CCSM45	51.1	53.3	54.2	54.1	
	CCSM85	51.1	53.6	54.9	55.9	
	GFDL45	51.1	54.3	54.4	54.5	
	GFDL85	51.1	52.4	53.5	54.2	
	HAD45	51.1	51.5	53.1	53.9	
	HAD85	51.1	52.9	54.1	55.9	
Warmest Month (Average)	CCSM45	83.1	84.1	84.4	84.6	
	CCSM85	83.1	84.3	85.1	86.4	
	GFDL45	83.1	86.0	86.3	87.3	
	GFDL85	83.1	85.7	87.1	89.3	
	HAD45	83.1	86.0	87.1	87.3	
	HAD85	83.1	86.1	88.3	89.3	

**Precipitation (in)**

	Scenario	2009	2039	2069	2099	
Annual Total	CCSM45	62.7	65.0	70.8	68.6	
	CCSM85	62.7	65.3	67.3	68.3	
	GFDL45	62.7	68.6	74.4	68.5	
	GFDL85	62.7	66.6	68.1	66.9	
	HAD45	62.7	59.8	62.4	66.2	
	HAD85	62.7	66.9	59.8	63.2	
Growing Season (May—Sep)	CCSM45	29.5	30.8	32.3	31.8	
	CCSM85	29.5	29.7	30.9	29.8	
	GFDL45	29.5	33.8	38.2	33.2	
	GFDL85	29.5	33.0	35.0	35.8	
	HAD45	29.5	28.9	29.1	31.0	
	HAD85	29.5	29.8	25.3	25.9	

**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
bald cypress	Taxodium distichum	NSH	Medium	47.7	358.2	21.2	No change	No change	Medium	Common	Fair	Fair	Infill +	Infill +	1	1
water tupelo	Nyssa aquatica	NSH	Medium	25.6	283.5	27.0	Sm. dec.	Sm. dec.	Low	Common	Poor	Poor	Infill +	Infill +	0	2
red maple	Acer rubrum	WDH	High	52.3	217.8	21.4	Sm. inc.	No change	High	Common	Very Good	Good	Infill ++	Infill ++	1	3
loblolly pine	Pinus taeda	WDH	High	18.6	210.8	30.1	No change	Sm. inc.	Medium	Common	Fair	Good	Infill +		2	4
water oak	Quercus nigra	WDH	High	33.7	130.1	18.2	No change	No change	Medium	Common	Fair	Fair	Infill +	Infill +	1	5
American elm	Ulmus americana	WDH	Medium	42.8	92.0	8.2	No change	No change	Medium	Common	Fair	Fair	Infill +	Infill +	1	6
green ash	Fraxinus pennsylvanica	WSH	Low	40.7	90.3	10.2	Sm. inc.	Sm. inc.	Medium	Common	Good	Good	Infill ++	Infill ++	1	7
sweetgum	Liquidambar styraciflua	WDH	High	45.3	89.4	10.3	Sm. inc.	Sm. inc.	Medium	Common	Good	Good	Infill ++	Infill ++	1	8
black willow	Salix nigra	NSH	Low	18.4	55.6	14.7	Sm. inc.	Lg. inc.	Low	Common	Fair	Good	Infill +	Infill ++	1	9
sugarberry	Celtis laevigata	NDH	Medium	32.5	41.9	6.8	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	1	10
boxelder	Acer negundo	WSH	Low	20.9	41.0	8.3	No change	No change	High	Rare	Fair	Fair	Infill +	Infill +	1	11
Nuttall oak	Quercus texana	NSH	Medium	8.1	20.6	4.5	No change	No change	High	Rare	Fair	Fair			0	12
cherrybark oak; swamp red o.	Quercus pagoda	NSL	Medium	11.6	14.6	5.0	Sm. inc.	Sm. inc.	Medium	Rare	Fair	Fair	Infill +	Infill +	2	13
American hornbeam; muscle	Carpinus caroliniana	WSL	Low	2.3	9.9	4.3	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	2	14
willow oak	Quercus phellos	NSL	Low	9.3	8.4	14.4	No change	Lg. inc.	Medium	Rare	Fair	Good	Infill +		2	15
overcup oak	Quercus lyrata	NSL	Medium	5.8	8.2	11.1	No change	Sm. inc.	Low	Rare	Very Poor	Poor		Infill +	2	16
laurel oak	Quercus laurifolia	NDH	Medium	10.5	7.6	7.7	Lg. inc.	Sm. inc.	Medium	Rare	Good	Fair		Infill +	2	17
live oak	Quercus virginiana	NDH	High	18.6	6.9	5.9	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	18
winged elm	Ulmus alata	WDL	Medium	19.8	6.9	3.7	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	2	19
swamp chestnut oak	Quercus michauxii	NSL	Low	1.2	6.3	5.5	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	2	20
blackgum	Nyssa sylvatica	WDL	Medium	11.6	4.7	2.2	Lg. inc.	Lg. inc.	High	Rare	Good	Good			2	21
pecan	Carya illinoensis	NSH	Low	13.9	3.3	3.8	Sm. inc.	Lg. inc.	Low	Rare	Poor	Fair		Infill +	2	22
mockernut hickory	Carya alba	WDL	Medium	2.3	3.2	1.4	No change	No change	High	Rare	Fair	Fair	Infill +	Infill +	2	23
slippery elm	Ulmus rubra	WSL	Low	10.5	3.2	3.2	Sm. inc.	Lg. inc.	Medium	Rare	Fair	Good	Infill +	Infill ++	2	24
water hickory	Carya aquatica	NSL	Medium	18.6	2.6	2.3	No change	Lg. inc.	Medium	Rare	Poor	Good	Infill +	Infill ++	2	25
post oak	Quercus stellata	WDH	High	4.6	1.9	6.4	Lg. inc.	Lg. inc.	High	Rare	Good	Good			2	26
pond cypress	Taxodium ascendens	NSH	Medium	4.6	1.5	5.3	No change	Lg. inc.	Medium	Rare	Poor	Good			2	27
honeylocust	Gleditsia triacanthos	NSH	Low	9.3	1.1	1.9	No change	Lg. inc.	High	Rare	Fair	Good			2	28
black cherry	Prunus serotina	WDL	Medium	5.8	0.8	0.8	No change	Sm. inc.	Low	Rare	Very Poor	Poor		Infill +	2	29
eastern hophornbeam; ironw	Ostrya virginiana	WSL	Low	9.3	0.7	1.1	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor			0	30
red mulberry	Morus rubra	NSL	Low	1.2	0.5	0.4	Sm. inc.	No change	Medium	Rare	Fair	Poor			0	31
sassafras	Sassafras albidum	WSL	Low	5.8	0.3	0.2	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	32
pignut hickory	Carya glabra	WDL	Medium	1.2	0.3	0.2	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	33
American basswood	Tilia americana	WSL	Medium	4.6	0.3	0.9	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	34
sycamore	Platanus occidentalis	NSL	Low	4.6	0.2	0.8	No change	Sm. inc.	Medium	Rare	Poor	Fair		Infill +	2	35
American holly	Ilex opaca	NSL	Medium	4.6	0.2	0.5	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	36
black oak	Quercus velutina	WDH	High	4.6	0.1	0.4	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	37
Atlantic white-cedar	Chamaecyparis thyoides	NSH	Low	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat	Migrate +		3	38
eastern redcedar	Juniperus virginiana	WDH	Medium	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0	39
shortleaf pine	Pinus echinata	WDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Likely +	Likely +	3	40
slash pine	Pinus elliotii	NDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Likely +	Likely +	3	41
longleaf pine	Pinus palustris	NSH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Likely +	Likely +	3	42
striped maple	Acer pensylvanicum	NSL	Medium	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	43
serviceberry	Amelanchier spp.	NSL	Low	0	0	0	Unknown	New Habitat	Medium	Absent	Unknown	New Habitat			3	44
pawpaw	Asimina triloba	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	45
cittamwood/gum bumelia	Sideroxylon lanuginosum ssp.	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	46
bitternut hickory	Carya cordiformis	WSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Likely +	Likely +	3	47

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
flowering dogwood	Cornus florida	WDL	Medium	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0	48
black ash	Fraxinus nigra	WSH	Medium	0	0	0	Unknown	Unknown	Low	Absent	Unknown	Unknown			0	49
loblolly-bay	Gordonia lasianthus	NSH	Medium	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	50
silverbell	Halesia spp.	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	51
southern magnolia	Magnolia grandiflora	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Likely +	Likely +	3	52
sweetbay	Magnolia virginiana	NSL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Likely +	Likely +	3	53
bigleaf magnolia	Magnolia macrophylla	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	54
swamp tupelo	Nyssa biflora	NDH	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat	Likely +	Likely +	3	55
sourwood	Oxydendrum arboreum	NDL	High	0	0	0	Unknown	Unknown	High	Modeled	Unknown	Unknown			0	56
water elm	Planera aquatica	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Likely +	Likely +	3	57
pin cherry	Prunus pensylvanica	NSL	Low	0	0	0	Unknown	New Habitat	Medium	Absent	Unknown	New Habitat		Likely +	3	58
southern red oak	Quercus falcata	WDL	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Likely +	Likely +	3	59
cabbage palmetto	Sabal palmetto	NDH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			0	60
cedar elm	Ulmus crassifolia	NDH	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat	Migrate ++	Migrate ++	3	61