

sq. km sq. mi FIA Plots
Area of Region 8,400.0 3,243.3 310

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	Scenario	Scenario	Scenario	SHIFT	SHIFT				
				High	15	RCP45	RCP85	RCP45	RCP85	RCP45	RCP85				
Ash	2					Increase	20	23	Very Good	9	10	Likely	3	3	
Hickory	6			Medium	26	43	No Change	18	17	Good	11	11	Infill	10	11
Maple	3	Abundant	4	Low	28	8	Decrease	17	15	Fair	5	6	Migrate	1	1
Oak	12	Common	15	FIA	0		New	5	5	Poor	15	16			
Pine	4	Rare	36				Unknown	6	6	Very Poor	12	8			
Other	28	Absent	11							FIA Only	0	0			
	55		66		66	66		66	66	Unknown	6	6			
											58	57			

Potential Changes in Climate Variables

Temperature (°F)

	Scenario	2009	2039	2069	2099	
Annual Average	CCSM45	66.1	67.8	69.2	69.5	
	CCSM85	66.1	68.3	70.7	73.0	
	GFDL45	66.1	68.9	70.2	71.5	
	GFDL85	66.1	68.7	71.7	75.0	
	HAD45	66.1	68.3	71.1	72.0	
HAD85	66.1	68.7	72.3	75.8		
Growing Season (May—Sep)	CCSM45	79.1	80.6	81.5	82.0	
	CCSM85	79.1	81.3	83.4	86.2	
	GFDL45	79.1	82.2	83.5	86.0	
	GFDL85	79.1	82.3	85.5	89.7	
	HAD45	79.1	81.7	84.2	84.6	
HAD85	79.1	82.1	86.3	89.3		
Coldest Month (Average)	CCSM45	46.6	49.1	50.0	50.1	
	CCSM85	46.6	49.2	50.4	51.7	
	GFDL45	46.6	50.2	50.3	50.2	
	GFDL85	46.6	47.6	48.6	49.2	
	HAD45	46.6	47.0	48.8	49.4	
HAD85	46.6	48.9	50.4	52.3		
Warmest Month (Average)	CCSM45	83.5	84.5	84.8	85.1	
	CCSM85	83.5	85.4	86.0	87.5	
	GFDL45	83.5	87.8	87.7	89.4	
	GFDL85	83.5	87.5	89.0	91.9	
	HAD45	83.5	86.4	87.5	87.6	
HAD85	83.5	87.0	89.1	90.0		

Precipitation (in)

	Scenario	2009	2039	2069	2099	
Annual Total	CCSM45	47.9	47.1	53.8	51.3	
	CCSM85	47.9	49.0	52.9	52.3	
	GFDL45	47.9	49.2	57.2	48.7	
	GFDL85	47.9	48.7	51.6	50.7	
	HAD45	47.9	48.3	46.4	50.1	
HAD85	47.9	49.9	43.6	46.1		
Growing Season (May—Sep)	CCSM45	19.4	20.0	22.1	20.6	
	CCSM85	19.4	19.2	19.8	18.5	
	GFDL45	19.4	21.1	26.3	20.8	
	GFDL85	19.4	21.4	23.0	23.1	
	HAD45	19.4	18.6	18.0	19.4	
HAD85	19.4	19.1	15.9	16.2		

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	94	4773.1	50.8	Sm. dec.	Sm. dec.	Medium	Abundant	Fair	Fair			0	1	
sweetgum	Liquidambar styraciflua	WDH	High	90.5	960.7	10.6	No change	No change	Medium	Abundant	Good	Good				1	2
shortleaf pine	Pinus echinata	WDH	High	66.7	617.0	9.3	No change	No change	Medium	Abundant	Good	Good				1	3
post oak	Quercus stellata	WDH	High	73.8	502.2	6.8	Lg. inc.	Lg. inc.	High	Abundant	Very Good	Very Good				1	4
winged elm	Ulmus alata	WDL	Medium	84.5	446.7	5.3	Sm. inc.	Sm. inc.	Medium	Common	Good	Good				1	5
water oak	Quercus nigra	WDH	High	79.8	433.3	5.4	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good				1	6
southern red oak	Quercus falcata	WDL	Medium	72.6	309.5	4.3	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good				1	7
sugarberry	Celtis laevigata	NDH	Medium	32.1	176.7	5.5	Sm. inc.	Sm. inc.	Medium	Common	Good	Good				1	8
willow oak	Quercus phellos	NSL	Low	31	162.6	5.3	No change	Sm. inc.	Medium	Common	Fair	Good				1	9
cherrybark oak; swamp red o	Quercus pagoda	NSL	Medium	47.6	151.1	3.2	No change	No change	Medium	Common	Fair	Fair				1	10
blackgum	Nyssa sylvatica	WDL	Medium	47.6	107.7	2.3	Sm. inc.	Lg. inc.	High	Common	Very Good	Very Good				1	11
American hornbeam; musclev	Carpinus caroliniana	WSL	Low	25	92.4	3.7	Sm. inc.	Sm. inc.	Medium	Common	Good	Good				1	12
eastern redcedar	Juniperus virginiana	WDH	Medium	22.6	91.5	4.0	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good				1	13
white oak	Quercus alba	WDH	Medium	28.6	67.5	2.4	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good				1	14
green ash	Fraxinus pennsylvanica	WSH	Low	20.2	66.7	3.3	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good				1	15
American elm	Ulmus americana	WDH	Medium	23.8	64.8	2.7	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good				1	16
black hickory	Carya texana	NDL	High	29.8	61.0	2.1	Sm. inc.	Lg. inc.	Medium	Common	Good	Very Good				1	17
eastern hophornbeam; ironw	Ostrya virginiana	WSL	Low	31	60.3	2.0	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good				1	18
overcup oak	Quercus lyrata	NSL	Medium	7.1	58.7	8.2	Sm. dec.	Sm. dec.	Low	Common	Poor	Poor	Infill +	Infill +		0	19
white ash	Fraxinus americana	WDL	Medium	26.2	49.5	1.9	No change	No change	Low	Rare	Very Poor	Very Poor				0	20
red maple	Acer rubrum	WDH	High	26.2	45.1	1.7	Lg. inc.	Lg. inc.	High	Rare	Good	Good				1	21
slash pine	Pinus elliottii	NDH	High	6	44.0	7.4	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +		2	22
blackjack oak	Quercus marilandica	NSL	Medium	14.3	40.3	2.8	Lg. inc.	Lg. inc.	High	Rare	Good	Good				1	23
water elm	Planera aquatica	NSL	Low	4.8	36.5	7.7	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor				0	24
sassafras	Sassafras albidum	WSL	Low	23.8	30.8	1.3	Sm. dec.	No change	Medium	Rare	Very Poor	Poor				1	25
boxelder	Acer negundo	WSH	Low	4.8	27.4	5.8	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor				1	26
cedar elm	Ulmus crassifolia	NDH	Medium	6	27.1	4.6	Lg. inc.	Lg. inc.	Low	Rare	Fair	Fair	Infill +	Infill +		1	27
mockernut hickory	Carya alba	WDL	Medium	29.8	24.4	0.8	Lg. inc.	Lg. inc.	High	Rare	Good	Good				1	28
common persimmon	Diospyros virginiana	NSL	Low	16.7	24.1	1.5	Lg. dec.	Sm. dec.	High	Rare	Poor	Poor				1	29
florida maple	Acer barbatum	NSL	Low	6	22.0	3.7	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor				1	30
American holly	Ilex opaca	NSL	Medium	22.6	21.8	1.0	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good				1	31
river birch	Betula nigra	NSL	Low	8.3	20.9	2.5	No change	No change	Medium	Rare	Poor	Poor				1	32
black willow	Salix nigra	NSH	Low	3.6	19.0	5.3	No change	No change	Low	Rare	Very Poor	Very Poor				0	33
flowering dogwood	Cornus florida	WDL	Medium	26.2	15.8	0.6	No change	Sm. inc.	Medium	Rare	Poor	Fair				1	34
sycamore	Platanus occidentalis	NSL	Low	4.8	15.2	3.2	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor				2	35
cittamwood/gum bumelia	Sideroxylon lanuginosum ssp.	NSL	Low	7.1	12.5	1.8	Lg. inc.	Lg. inc.	High	Rare	Good	Good	Infill ++	Infill ++		1	36
swamp chestnut oak	Quercus michauxii	NSL	Low	3.6	10.8	3.0	No change	No change	Medium	Rare	Poor	Poor	Infill +			2	37
red mulberry	Morus rubra	NSL	Low	7.1	10.5	1.5	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +		1	38
longleaf pine	Pinus palustris	NSH	Medium	4.8	10.0	2.1	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +		2	39
honeylocust	Gleditsia triacanthos	NSH	Low	8.3	9.8	1.2	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor			Infill +	1	40
eastern redbud	Cercis canadensis	NSL	Low	7.1	9.7	1.4	No change	No change	Medium	Rare	Poor	Poor			Infill +	1	41
black cherry	Prunus serotina	WDL	Medium	7.1	8.8	1.2	No change	No change	Low	Rare	Very Poor	Very Poor				0	42
laurel oak	Quercus laurifolia	NDH	Medium	4.8	5.0	1.1	No change	No change	Medium	Rare	Poor	Poor	Infill +			2	43
slippery elm	Ulmus rubra	WSL	Low	6	4.6	0.8	Lg. dec.	Very Lg. dec.	Medium	Rare	Very Poor	Lost				0	44
water hickory	Carya aquatica	NSL	Medium	3.6	3.6	1.0	Sm. dec.	No change	Medium	Rare	Very Poor	Poor			Infill +	2	45
shagbark hickory	Carya ovata	WSL	Medium	1.2	3.1	2.6	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor				0	46
bluejack oak	Quercus incana	NSL	Low	2.4	2.9	1.2	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +		2	47

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Common Name	Scientific Name	Range	MR	%Cell	FIAsum	FIaiv	ChngCl45	ChngCl85	Adap	Abund	Capabil45	Capabil85	SHIFT45	SHIFT85	SSO	N
bitternut hickory	<i>Carya cordiformis</i>	WSL	Low	1.2	2.7	2.3	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor			0	48
pecan	<i>Carya illinoensis</i>	NSH	Low	2.4	2.1	0.9	No change	Lg. inc.	Low	Rare	Very Poor	Fair	Infill +		2	49
American basswood	<i>Tilia americana</i>	WSL	Medium	2.4	1.7	0.7	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost			0	50
black walnut	<i>Juglans nigra</i>	WDH	Low	2.4	1.6	0.7	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost			0	51
sweetbay	<i>Magnolia virginiana</i>	NSL	Medium	2.4	1.4	0.6	Sm. inc.	Sm. inc.	Medium	Rare	Fair	Fair	Infill +		2	52
black oak	<i>Quercus velutina</i>	WDH	High	1.2	1.4	1.2	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	53
swamp tupelo	<i>Nyssa biflora</i>	NDH	Medium	1.2	1.4	1.2	No change	No change	Low	Rare	Very Poor	Very Poor			2	54
bald cypress	<i>Taxodium distichum</i>	NSH	Medium	1.2	0.9	0.7	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost			0	55
ashe juniper	<i>Juniperus ashei</i>	NDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			0	56
serviceberry	<i>Amelanchier spp.</i>	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	57
shellbark hickory	<i>Carya laciniosa</i>	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Likely +	Likely +	3	58
American beech	<i>Fagus grandifolia</i>	WDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Likely +	Likely +	3	59
black ash	<i>Fraxinus nigra</i>	WSH	Medium	0	0	0	Unknown	Unknown	Low	Absent	Unknown	Unknown			0	60
southern magnolia	<i>Magnolia grandiflora</i>	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Likely +	Likely +	3	61
bigleaf magnolia	<i>Magnolia macrophylla</i>	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	62
pin cherry	<i>Prunus pensylvanica</i>	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	63
northern red oak	<i>Quercus rubra</i>	WDH	Medium	0	0	0	Unknown	Unknown	High	Absent	Unknown	Unknown			0	64
live oak	<i>Quercus virginiana</i>	NDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate ++	Migrate ++	3	65
black locust	<i>Robinia pseudoacacia</i>	NDH	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	66