

	sq. km	sq. mi	FIA Plots
Area of Region	8,044.0	3,105.8	354

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	Medium	Low	FIA	RCP45	RCP85	RCP45	RCP85
Ash	3			13	21	25	27	8	11	0	0
Hickory	5			34	49	13	15	13	14	9	13
Maple	3	Abundant	5	33	11	23	19	7	7	0	1
Oak	12	Common	18	3		5	7	19	18	9	14
Pine	7	Rare	41			17	15	3	3		
Other	34	Absent	18			83	83	14	12		
	64		82					77	76		

Potential Changes in Climate Variables

Temperature (°F)

Scenario	2009	2039	2069	2099	
Annual	67.6	69.0	70.8	70.8	
Average	67.6	69.2	71.5	73.8	
GFDL45	67.6	70.2	72.1	72.8	
GFDL85	67.6	70.0	73.0	76.6	
HAD45	67.6	69.5	71.9	73.3	
HAD85	67.6	69.9	73.1	76.7	
Growing Season	78.8	79.9	81.2	81.6	
May—Sep	78.8	81.2	83.1	84.2	
GFDL45	78.8	81.3	84.2	88.1	
GFDL85	78.8	81.6	83.6	85.0	
HAD45	78.8	81.6	85.8	88.9	
HAD85	78.8	81.6	85.8	88.9	
Coldest Month	50.2	52.4	53.3	52.9	
Average	50.2	53.0	53.4	53.9	
GFDL45	50.2	52.4	53.5	54.3	
GFDL85	50.2	52.4	51.5	52.4	
HAD45	50.2	51.2	52.2	54.0	
HAD85	50.2	51.2	52.2	54.0	
Warmest Month	81.7	82.9	83.5	83.8	
Average	81.7	82.9	84.1	85.6	
GFDL45	81.7	84.0	84.7	85.4	
GFDL85	81.7	83.9	85.3	87.4	
HAD45	81.7	84.9	86.0	86.6	
HAD85	81.7	84.9	87.3	88.8	

Precipitation (in)

Scenario	2009	2039	2069	2099	
Annual	58.9	63.4	65.2	66.4	
Total	58.9	62.0	66.6	67.8	
GFDL45	58.9	65.8	68.6	70.8	
GFDL85	58.9	64.8	71.0	67.6	
HAD45	58.9	56.4	60.3	63.6	
HAD85	58.9	59.5	54.7	58.4	
Growing Season	29.7	33.1	34.0	34.0	
May—Sep	29.7	31.1	34.8	34.6	
GFDL45	29.7	35.9	37.0	37.2	
GFDL85	29.7	35.9	40.4	38.5	
HAD45	29.7	28.9	29.8	30.3	
HAD85	29.7	28.8	24.5	25.7	

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	85.1	3413.3	37.6	No change	No change	Medium	Abundant	Good	Good			1	1
longleaf pine	Pinus palustris	NSH	Medium	49.6	812.6	16.3	Sm. inc.	Sm. inc.	Medium	Abundant	Very Good	Very Good			1	2
loblolly pine	Pinus taeda	WDH	High	52	756.2	14.4	Sm. inc.	Sm. inc.	Medium	Abundant	Very Good	Very Good			1	3
swamp tupelo	Nyssa biflora	NDH	Medium	69.1	556.7	7.7	Sm. inc.	Sm. inc.	Low	Abundant	Good	Good			1	4
laurel oak	Quercus laurifolia	NDH	Medium	54.3	505.6	9.2	Sm. inc.	Sm. inc.	Medium	Abundant	Very Good	Very Good			1	5
pond cypress	Taxodium ascendens	NSH	Medium	52.9	494.1	8.7	Sm. inc.	Lg. inc.	Medium	Common	Good	Very Good			1	6
sand pine	Pinus clausa	NDH	High	11.8	443.4	29.0	No change	No change	Low	Common	Poor	Poor			0	7
sweetbay	Magnolia virginiana	NSL	Medium	65.5	392.4	5.8	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	8
water oak	Quercus nigra	WDH	High	64	338.0	5.1	Sm. inc.	Lg. inc.	Medium	Common	Good	Very Good			1	9
sweetgum	Liquidambar styraciflua	WDH	High	46	290.2	6.3	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	10
pond pine	Pinus serotina	NSH	Medium	26.1	238.9	9.2	Sm. dec.	Sm. dec.	Low	Common	Poor	Poor			0	11
water tupelo	Nyssa aquatica	NSH	Medium	26.8	175.5	6.4	No change	Sm. dec.	Low	Common	Poor	Poor			0	12
red maple	Acer rubrum	WDH	High	44.9	143.1	2.8	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	13
live oak	Quercus virginiana	NDH	High	30.4	139.7	4.2	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	14
turkey oak	Quercus laevis	NSH	Medium	21.6	97.0	4.1	Lg. inc.	Sm. inc.	High	Common	Very Good	Very Good			1	15
green ash	Fraxinus pennsylvanica	WSH	Low	23.6	94.8	4.0	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	16
eastern hophornbeam; ironw	Ostrya virginiana	WSL	Low	8.7	92.6	10.6	Lg. dec.	Lg. dec.	High	Common	Fair	Fair			1	17
Atlantic white-cedar	Chamaecyparis thyoides	NSH	Low	13.7	79.1	5.8	Sm. inc.	No change	Low	Common	Fair	Poor			1	18
bald cypress	Taxodium distichum	NSH	Medium	21.1	78.6	3.7	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	19
blackgum	Nyssa sylvatica	WDL	Medium	37.3	72.3	1.9	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	20
loblolly-bay	Gordonia lasianthus	NSH	Medium	14.9	69.3	4.6	Sm. inc.	Lg. inc.	Medium	Common	Good	Very Good			1	21
spruce pine	Pinus glabra	NSL	Low	12.4	58.4	4.7	Lg. dec.	Lg. dec.	Medium	Common	Poor	Poor			0	22
black cherry	Prunus serotina	WDL	Medium	14.9	53.1	3.6	Sm. inc.	Lg. inc.	Low	Common	Fair	Good			1	23
common persimmon	Diospyros virginiana	NSL	Low	11.2	48.1	4.3	Lg. dec.	Lg. dec.	High	Rare	Poor	Poor			1	24
shortleaf pine	Pinus echinata	WDH	High	2.5	45.5	18.3	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	2	25
American elm	Ulmus americana	WDH	Medium	17.4	44.7	2.6	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	1	26
yellow-poplar	Liriodendron tulipifera	WDH	High	13.7	44.0	3.2	Sm. dec.	No change	High	Rare	Poor	Fair			1	27
southern magnolia	Magnolia grandiflora	NSL	Low	18.6	39.1	2.1	Sm. inc.	Lg. inc.	Medium	Rare	Fair	Good			1	28
redbay	Persea borbonia	NSL	Low	27.3	37.8	1.4	Lg. inc.	Lg. inc.	High	Rare	Good	Good			1	29
American hornbeam; musclev	Carpinus caroliniana	WSL	Low	17.4	35.7	2.0	Sm. inc.	Sm. inc.	Medium	Rare	Fair	Fair			1	30
American holly	Ilex opaca	NSL	Medium	21.1	33.7	1.6	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	31
bluejack oak	Quercus incana	NSL	Low	16.2	32.9	2.0	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	32
sycamore	Platanus occidentalis	NSL	Low	3.7	27.8	7.4	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			2	33
pignut hickory	Carya glabra	WDL	Medium	4.9	26.1	5.1	Sm. dec.	No change	Medium	Rare	Very Poor	Poor	Infill +		1	34
cabbage palmetto	Sabal palmetto	NDH	Medium	7.4	24.9	3.3	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			0	35
pumpkin ash	Fraxinus profunda	NSH	FIA	7.4	23.6	3.1	Unknown	Unknown	NA	Rare	FIA Only	FIA Only			0	36
water hickory	Carya aquatica	NSL	Medium	6.2	23.1	3.7	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	1	37
pecan	Carya illinoensis	NSH	Low	3.7	21.2	5.7	Sm. dec.	Sm. dec.	Low	Rare	Very Poor	Very Poor			2	38
flowering dogwood	Cornus florida	WDL	Medium	11.2	20.1	1.8	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	39
overcup oak	Quercus lyrata	NSL	Medium	8.7	19.3	2.2	No change	No change	Low	Rare	Very Poor	Very Poor			0	40
black willow	Salix nigra	NSH	Low	3.7	16.4	4.4	No change	No change	Low	Rare	Very Poor	Very Poor			0	41
sugarberry	Celtis laevigata	NDH	Medium	3.7	15.5	4.2	No change	Lg. inc.	Medium	Rare	Poor	Good	Infill +	Infill ++	2	42
swamp chestnut oak	Quercus michauxii	NSL	Low	7.5	11.6	1.6	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	43
hackberry	Celtis occidentalis	WDH	Medium	2.5	10.5	4.2	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor			0	44
Carolina ash	Fraxinus caroliniana	NSL	FIA	8.7	8.7	1.0	Unknown	Unknown	NA	Rare	FIA Only	FIA Only			0	45
mockernut hickory	Carya alba	WDL	Medium	8.7	7.9	0.9	No change	No change	High	Rare	Fair	Fair	Infill +	Infill +	1	46
willow oak	Quercus phellos	NSL	Low	2.5	7.4	3.0	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	2	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
boxelder	Acer negundo	WSH	Low	3.7	6.5	1.8	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor			0	48
southern red oak	Quercus falcata	WDL	Medium	6.2	6.0	1.0	Sm. inc.	Lg. inc.	High	Rare	Good	Good	Infill ++	Infill ++	2	49
sourwood	Oxydendrum arboreum	NDL	High	5	5.6	1.1	Sm. dec.	Lg. dec.	High	Rare	Poor	Poor			0	50
post oak	Quercus stellata	WDH	High	2.5	5.5	2.2	Lg. inc.	Lg. inc.	High	Rare	Good	Good			2	51
eastern redcedar	Juniperus virginiana	WDH	Medium	3.7	5.5	1.5	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			2	52
river birch	Betula nigra	NSL	Low	7.5	5.3	0.7	No change	Sm. inc.	Medium	Rare	Poor	Fair	Infill +	Infill +	1	53
slippery elm	Ulmus rubra	WSL	Low	3.7	3.8	1.0	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	54
bitternut hickory	Carya cordiformis	WSL	Low	1.2	3.1	2.5	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor			0	55
eastern redbud	Cercis canadensis	NSL	Low	3.7	2.5	0.7	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	56
American beech	Fagus grandifolia	WDH	High	2.5	2.5	1.0	No change	No change	Medium	Rare	Poor	Poor		Infill +	2	57
white oak	Quercus alba	WDH	Medium	1.2	2.1	1.7	Sm. dec.	No change	High	Rare	Poor	Fair		Infill +	2	58
sassafras	Sassafras albidum	WSL	Low	2.5	1.3	0.5	Very Lg. dec.	No change	Medium	Rare	Lost	Poor		Infill +	2	59
florida maple	Acer barbatum	NSL	Low	1.2	0.6	0.5	Lg. dec.	Lg. dec.	High	Rare	Poor	Poor			0	60
cedar elm	Ulmus crassifolia	NDH	Medium	1.2	0.5	0.4	Sm. inc.	Lg. inc.	Low	Rare	Poor	Fair		Infill +	2	61
water elm	Planera aquatica	NSL	Low	1.2	0.4	0.3	Lg. dec.	No change	Medium	Rare	Very Poor	Poor			0	62
wild plum	Prunus americana	NSLX	FIA	1.2	0.3	0.3	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	63
blackjack oak	Quercus marilandica	NSL	Medium	1.2	0.2	0.2	No change	Lg. inc.	High	Rare	Fair	Good	Infill +		2	64
Table Mountain pine	Pinus pungens	NSL	Low	0	0	0	Unknown	Unknown	High	Absent	Unknown	Unknown			0	65
striped maple	Acer pensylvanicum	NSL	Medium	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	66
silver maple	Acer saccharinum	NSH	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat			3	67
serviceberry	Amelanchier spp.	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	68
cittamwood/gum bumelia	Sideroxylon lanuginosum ssp.	NSL	Low	0	0	0	Unknown	New Habitat	High	Absent	Unknown	New Habitat			3	69
shellbark hickory	Carya laciniosa	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	70
shagbark hickory	Carya ovata	WSL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	71
black ash	Fraxinus nigra	WSH	Medium	0	0	0	Unknown	Unknown	Low	Absent	Unknown	Unknown			0	72
silverbell	Halesia spp.	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	73
cucumbertree	Magnolia acuminata	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	74
bigleaf magnolia	Magnolia macrophylla	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	75
red mulberry	Morus rubra	NSL	Low	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0	76
pin cherry	Prunus pensylvanica	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	77
scarlet oak	Quercus coccinea	WDL	Medium	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	78
chinkapin oak	Quercus muehlenbergii	NSL	Medium	0	0	0	Unknown	New Habitat	Medium	Absent	Unknown	New Habitat			3	79
chestnut oak	Quercus prinus	NDH	High	0	0	0	Unknown	Unknown	High	Absent	Unknown	Unknown			0	80
black locust	Robinia pseudoacacia	NDH	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	81
American basswood	Tilia americana	WSL	Medium	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	82
winged elm	Ulmus alata	WDL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate ++	3	83