

	sq. km	sq. mi	FIA Plots
Area of Region	2,058.7	794.8	46

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					
		High	Common	Reliability	Adaptability	Scenario RCP45	Scenario RCP85	Scenario RCP45	Scenario RCP85	SHIFT RCP45	SHIFT RCP85				
Ash	2					Increase	13	16	Very Good	4	6	Likely	8	8	
Hickory	5					No Change	14	12	Good	13	16	Infill	8	8	
Maple	2	Abundant	11	High	10	16	Decrease	13	12	Fair	11	5	Migrate	3	2
Oak	8	Common	10	Medium	27	41	New	18	16	Poor	3	5			
Pine	0	Rare	20	Low	28	9	Unknown	8	10	Very Poor	5	5			
Other	24	Absent	22	FIA	1					FIA Only	1	1			
	41		63		66	66		66	66		44	47		19	18

Potential Changes in Climate Variables

Temperature (°F)

	Scenario	2009	2039	2069	2099
Annual Average	CCSM45	52.0	52.9	53.8	53.9
	CCSM85	52.0	53.0	54.3	55.5
	GFDL45	52.0	53.5	54.3	54.8
	GFDL85	52.0	53.4	55.1	56.9
	HAD45	52.0	53.3	54.7	55.3
	HAD85	52.0	53.4	55.3	57.3
Growing Season May—Sep	CCSM45	58.6	59.3	60.0	60.2
	CCSM85	58.6	59.5	60.7	62.1
	GFDL45	58.6	60.2	61.0	62.0
	GFDL85	58.6	60.2	61.9	64.1
	HAD45	58.6	60.2	61.5	61.9
	HAD85	58.6	60.3	62.8	64.4
Coldest Month Average	CCSM45	41.8	43.1	43.6	43.6
	CCSM85	41.8	43.4	44.1	44.7
	GFDL45	41.8	43.7	43.8	43.8
	GFDL85	41.8	42.5	43.0	43.4
	HAD45	41.8	42.2	43.1	43.6
	HAD85	41.8	42.9	43.6	44.7
Warmest Month Average	CCSM45	60.4	61.0	61.2	61.3
	CCSM85	60.4	61.1	61.6	62.3
	GFDL45	60.4	62.2	62.2	62.9
	GFDL85	60.4	62.0	62.8	64.1
	HAD45	60.4	62.2	63.0	63.0
	HAD85	60.4	62.4	63.8	64.4

Precipitation (in)

	Scenario	2009	2039	2069	2099
Annual Total	CCSM45	34.5	35.7	38.8	37.2
	CCSM85	34.5	35.6	36.7	37.7
	GFDL45	34.5	37.4	41.4	38.0
	GFDL85	34.5	36.8	37.4	37.7
	HAD45	34.5	33.4	34.4	36.4
	HAD85	34.5	36.5	32.6	35.0
Growing Season May—Sep	CCSM45	15.0	15.5	16.2	15.8
	CCSM85	15.0	14.6	15.2	15.1
	GFDL45	15.0	17.0	19.9	17.0
	GFDL85	15.0	16.9	18.0	18.9
	HAD45	15.0	14.9	14.9	15.4
	HAD85	15.0	14.8	12.8	13.2

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-DGP30 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
sugarberry	Celtis laevigata	NDH	Medium	86.5	2412.1	12.8	No change	No change	Medium	Abundant	Good	Good			1	1
sweetgum	Liquidambar styraciflua	WDH	High	70.1	1389.1	8.6	No change	No change	Medium	Abundant	Good	Good			1	2
green ash	Fraxinus pennsylvanica	WSH	Low	73.1	1288.8	5.8	No change	No change	Medium	Abundant	Good	Good			1	3
bald cypress	Taxodium distichum	NSH	Medium	35.4	1114.3	6.7	Sm. inc.	Sm. inc.	Medium	Abundant	Very Good	Very Good			1	4
American elm	Ulmus americana	WDH	Medium	76	1059.9	5.8	No change	No change	Medium	Abundant	Good	Good			1	5
boxelder	Acer negundo	WSH	Low	74.8	897.2	5.1	Sm. dec.	Sm. dec.	High	Abundant	Good	Good			1	6
red maple	Acer rubrum	WDH	High	57.9	872.2	5.0	Sm. inc.	Sm. inc.	High	Abundant	Very Good	Very Good			1	7
Nuttall oak	Quercus texana	NSH	Medium	61.2	707.3	5.1	Sm. dec.	No change	High	Abundant	Good	Very Good			0	8
water oak	Quercus nigra	WDH	High	50.4	547.4	4.2	Sm. inc.	Sm. inc.	Medium	Abundant	Very Good	Very Good			1	9
pecan	Carya illinoensis	NSH	Low	30.2	532.3	7.6	No change	Sm. inc.	Low	Abundant	Fair	Good			1	10
water tupelo	Nyssa aquatica	NSH	Medium	13.6	520.6	9.3	Sm. inc.	Sm. inc.	Low	Abundant	Good	Good	Infill ++	Infill ++	1	11
black willow	Salix nigra	NSH	Low	27.5	404.8	2.6	Sm. inc.	Lg. inc.	Low	Common	Fair	Good			1	12
water hickory	Carya aquatica	NSL	Medium	60.7	325.2	1.6	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	13
overcup oak	Quercus lyrata	NSL	Medium	38.1	173.4	1.4	Lg. inc.	Lg. inc.	Low	Common	Good	Good			1	14
sycamore	Platanus occidentalis	NSL	Low	19.4	160.4	2.2	No change	Sm. inc.	Medium	Common	Fair	Good			1	15
American hornbeam; musclev	Carpinus caroliniana	WSL	Low	1.1	134.3	1.1	No change	No change	Medium	Rare	Poor	Poor			1	16
slippery elm	Ulmus rubra	WSL	Low	20.6	104.6	1.8	No change	Lg. inc.	Medium	Common	Fair	Very Good			1	17
bitternut hickory	Carya cordiformis	WSL	Low	0.8	103.5	3.6	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor			0	18
laurel oak	Quercus laurifolia	NDH	Medium	28.7	91.1	2.0	No change	Sm. dec.	Medium	Common	Fair	Poor			1	19
honeylocust	Gleditsia triacanthos	NSH	Low	24.6	76.9	1.0	Sm. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	20
water elm	Planera aquatica	NSL	Low	7.4	61.4	0.6	No change	No change	Medium	Common	Fair	Fair	Infill +	Infill +	1	21
common persimmon	Diospyros virginiana	NSL	Low	13.9	58.7	1.1	Sm. dec.	Sm. dec.	High	Common	Fair	Fair			1	22
eastern cottonwood	Populus deltoides	NSH	Low	9.3	55.6	1.0	No change	No change	Medium	Common	Fair	Fair	Infill +	Infill +	1	23
American beech	Fagus grandifolia	WDH	High	1.1	42.8	0.7	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	2	24
white ash	Fraxinus americana	WDL	Medium	4.9	35.5	7.3	Sm. dec.	Sm. dec.	Low	Rare	Very Poor	Very Poor			0	25
black cherry	Prunus serotina	WDL	Medium	3.2	30.6	4.1	Sm. dec.	Sm. dec.	Low	Rare	Very Poor	Very Poor			2	26
sassafras	Sassafras albidum	WSL	Low	3.4	30.1	4.4	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	27
cherrybark oak; swamp red o.	Quercus pagoda	NSL	Medium	5.6	27.3	0.3	Sm. inc.	Lg. inc.	Medium	Rare	Fair	Good			1	28
swamp tupelo	Nyssa biflora	NDH	Medium	4.9	26.6	1.8	Sm. dec.	Sm. dec.	Low	Rare	Very Poor	Very Poor			0	29
flowering dogwood	Cornus florida	WDL	Medium	9.6	16.6	0.9	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	30
winged elm	Ulmus alata	WDL	Medium	1.2	15.5	0.1	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			1	31
mockernut hickory	Carya alba	WDL	Medium	0.3	11.2	0.1	No change	No change	High	Rare	Fair	Fair	Infill +	Infill +	2	32
yellow-poplar	Liriodendron tulipifera	WDH	High	0.8	11.2	0.4	No change	No change	High	Rare	Fair	Fair	Infill +	Infill +	2	33
waterlocust	Gleditsia aquatica	NSLX	FIA	4.9	8.1	1.7	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	34
live oak	Quercus virginiana	NDH	High	4.9	6.0	1.2	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	35
willow oak	Quercus phellos	NSL	Low	5.8	4.9	0.3	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	2	36
pignut hickory	Carya glabra	WDL	Medium	7	3.7	0.3	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost			0	37
Shumard oak	Quercus shumardii	NSL	Low	0.3	2.9	0.0	Very Lg. dec.	Very Lg. dec.	High	Rare	Lost	Lost			0	38
eastern redcedar	Juniperus virginiana	WDH	Medium	0.7	2.8	0.1	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost			0	39
red mulberry	Morus rubra	NSL	Low	4.9	2.6	0.5	Very Lg. dec.	No change	Medium	Rare	Lost	Poor			1	40
eastern hophornbeam; ironw	Ostrya virginiana	WSL	Low	0.4	1.1	0.0	Sm. inc.	Lg. inc.	High	Rare	Good	Good	Infill ++	Infill ++	2	41
Atlantic white-cedar	Chamaecyparis thyoides	NSH	Low	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat			3	42
longleaf pine	Pinus palustris	NSH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +		3	43
loblolly pine	Pinus taeda	WDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Likely +	Likely +	3	44
striped maple	Acer pensylvanicum	NSL	Medium	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	45
mountain maple	Acer spicatum	NSL	Low	0	0	0	Unknown	Unknown	High	Absent	Unknown	Unknown			0	46
serviceberry	Amelanchier spp.	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			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
pawpaw	Asimina triloba	NSL	Low	0	0	0	New Habitat	Unknown	Medium	Absent	New Habitat	Unknown			3	48
cittamwood/gum bumelia	Sideroxylon lanuginosum ssp.	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat		Migrate +	3	49
shagbark hickory	Carya ovata	WSL	Medium	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0	50
black hickory	Carya texana	NDL	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Likely +	Likely +	3	51
silverbell	Halesia spp.	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	52
American holly	Ilex opaca	NSL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Likely +	Likely +	3	53
southern magnolia	Magnolia grandiflora	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Likely +	Likely +	3	54
bigleaf magnolia	Magnolia macrophylla	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	55
blackgum	Nyssa sylvatica	WDL	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Likely +	Likely +	3	56
pin cherry	Prunus pensylvanica	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	57
white oak	Quercus alba	WDH	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate ++		3	58
swamp white oak	Quercus bicolor	NSL	Low	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0	59
scarlet oak	Quercus coccinea	WDL	Medium	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	60
southern red oak	Quercus falcata	WDL	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Likely +	Likely +	3	61
swamp chestnut oak	Quercus michauxii	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Likely +	Likely +	3	62
post oak	Quercus stellata	WDH	High	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate +	Migrate ++	3	63
black oak	Quercus velutina	WDH	High	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0	64
American basswood	Tilia americana	WSL	Medium	0	0	0	New Habitat	Unknown	Medium	Absent	New Habitat	Unknown			3	65
cedar elm	Ulmus crassifolia	NDH	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat	Likely +	Likely +	3	66