

	sq. km	sq. mi	FIA Plots
Area of Region	8,800.0	3,397.7	344

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					
		Abundant	Common	High	Medium	Reliability	Adaptability	Scenario RCP45	Scenario RCP85	Scenario RCP45	Scenario RCP85	SHIFT RCP45	SHIFT RCP85		
Ash	2														
Hickory	6														
Maple	3	Abundant	2	High	13	19	Increase	32	33	Very Good	10	12	Likely	1	1
Oak	13	Common	19	Medium	31	49	No Change	11	12	Good	19	17	Infill	19	21
Pine	4	Rare	40	Low	32	9	Decrease	17	15	Fair	6	9	Migrate	2	1
Other	33	Absent	15	FIA	1		New	7	8	Poor	12	11			
	61		76		77	77	Unknown	10	9	Very Poor	11	9			
								77	77	FIA Only	1	1			
										Unknown	9	8			
											68	67			

Potential Changes in Climate Variables

Temperature (°F)

	Scenario	2009	2039	2069	2099	
Annual Average	CCSM45	65.9	67.6	69.1	69.4	
	CCSM85	65.9	68.0	70.4	72.7	
	GFDL45	65.9	68.6	70.0	71.2	
	GFDL85	65.9	68.5	71.4	74.7	
	HAD45	65.9	68.2	71.0	72.0	
	HAD85	65.9	68.5	72.2	75.7	
Growing Season (May—Sep)	CCSM45	78.8	80.3	81.4	81.8	
	CCSM85	78.8	80.9	83.1	85.9	
	GFDL45	78.8	81.9	83.1	85.5	
	GFDL85	78.8	81.9	85.1	89.2	
	HAD45	78.8	81.6	84.1	84.6	
	HAD85	78.8	81.9	86.2	89.2	
Coldest Month (Average)	CCSM45	46.5	49.2	50.1	50.1	
	CCSM85	46.5	49.2	50.4	51.7	
	GFDL45	46.5	49.9	50.1	49.9	
	GFDL85	46.5	47.4	48.4	49.0	
	HAD45	46.5	47.2	49.0	49.7	
	HAD85	46.5	48.9	50.4	52.3	
Warmest Month (Average)	CCSM45	83.0	84.0	84.4	84.6	
	CCSM85	83.0	84.8	85.5	87.0	
	GFDL45	83.0	87.1	87.0	88.7	
	GFDL85	83.0	86.8	88.2	91.0	
	HAD45	83.0	86.3	87.4	87.3	
	HAD85	83.0	86.7	89.0	89.9	

Precipitation (in)

	Scenario	2009	2039	2069	2099	
Annual Total	CCSM45	53.4	53.2	60.3	58.3	
	CCSM85	53.4	55.3	59.3	59.8	
	GFDL45	53.4	55.5	64.8	55.8	
	GFDL85	53.4	55.3	58.1	57.8	
	HAD45	53.4	52.9	51.7	55.8	
	HAD85	53.4	55.6	48.5	51.4	
Growing Season (May—Sep)	CCSM45	20.9	21.4	23.5	22.3	
	CCSM85	20.9	20.5	21.3	20.2	
	GFDL45	20.9	22.9	29.0	23.2	
	GFDL85	20.9	23.3	25.2	25.7	
	HAD45	20.9	19.9	19.6	20.8	
	HAD85	20.9	20.3	16.9	17.3	

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.

Cite as: Iverson, L.R.; Prasad, A.M.; Peters, M.P.; Matthews, S.N. 2019. Facilitating Adaptive Forest Management under Climate Change: A Spatially Specific Synthesis of 125 Species for Habitat Changes and Assisted Migration over the Eastern United States. *Forests*. 10(11): 989. <https://doi.org/10.3390/f10110989>.

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	97.7	4858.0	49.7	Sm. dec.	Sm. dec.	Medium	Abundant	Fair	Fair			0	1	
sweetgum	Liquidambar styraciflua	WDH	High	95.5	1025.2	10.7	No change	No change	Medium	Abundant	Good	Good				1	2
shortleaf pine	Pinus echinata	WDH	High	63.6	455.0	7.2	Sm. inc.	Sm. inc.	Medium	Common	Good	Good				1	3
water oak	Quercus nigra	WDH	High	78.4	451.4	5.8	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good				1	4
post oak	Quercus stellata	WDH	High	61.4	283.8	4.6	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good				1	5
white oak	Quercus alba	WDH	Medium	56.8	215.7	3.8	No change	No change	High	Common	Good	Good				1	6
blackgum	Nyssa sylvatica	WDL	Medium	63.6	181.1	2.9	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good				1	7
red maple	Acer rubrum	WDH	High	65.9	178.6	2.7	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good				1	8
winged elm	Ulmus alata	WDL	Medium	73.9	174.2	2.4	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good				1	9
southern red oak	Quercus falcata	WDL	Medium	75	164.6	2.2	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good				1	10
longleaf pine	Pinus palustris	NSH	Medium	22.7	161.6	7.1	Sm. inc.	Sm. inc.	Medium	Common	Good	Good	Infill ++	Infill ++		1	11
American hornbeam; musclev	Carpinus caroliniana	WSL	Low	48.9	138.8	2.8	Sm. inc.	Sm. inc.	Medium	Common	Good	Good				1	12
cherrybark oak; swamp red o	Quercus pagoda	NSL	Medium	54.5	137.7	2.5	Sm. inc.	Sm. inc.	Medium	Common	Good	Good				1	13
slash pine	Pinus elliottii	NDH	High	14.8	107.5	7.3	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good	Infill ++	Infill ++		1	14
green ash	Fraxinus pennsylvanica	WSH	Low	22.7	100.0	4.4	Sm. inc.	Lg. inc.	Medium	Common	Good	Very Good				1	15
willow oak	Quercus phellos	NSL	Low	37.5	93.7	2.5	Sm. inc.	Lg. inc.	Medium	Common	Good	Very Good				1	16
American holly	Ilex opaca	NSL	Medium	46.6	79.8	1.7	Sm. inc.	Sm. inc.	Medium	Common	Good	Good				1	17
overcup oak	Quercus lyrata	NSL	Medium	11.4	70.4	6.2	Sm. dec.	Sm. dec.	Low	Common	Poor	Poor	Infill +	Infill +		0	18
eastern hophornbeam; ironw	Ostrya virginiana	WSL	Low	45.5	64.7	1.4	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good				1	19
mockernut hickory	Carya alba	WDL	Medium	43.2	60.1	1.4	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good				1	20
American elm	Ulmus americana	WDH	Medium	31.8	59.7	1.9	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good	Infill ++	Infill ++		1	21
florida maple	Acer barbatum	NSL	Low	23.9	49.7	2.1	Lg. dec.	Lg. dec.	High	Rare	Poor	Poor				1	22
eastern redcedar	Juniperus virginiana	WDH	Medium	17	43.9	2.6	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++		1	23
white ash	Fraxinus americana	WDL	Medium	37.5	42.9	1.2	Sm. inc.	Sm. inc.	Low	Rare	Poor	Poor	Infill +	Infill +		1	24
sassafras	Sassafras albidum	WSL	Low	25	38.9	1.6	No change	Sm. inc.	Medium	Rare	Poor	Fair				1	25
black willow	Salix nigra	NSH	Low	8	33.8	4.2	No change	No change	Low	Rare	Very Poor	Very Poor				0	26
American beech	Fagus grandifolia	WDH	High	15.9	33.3	2.1	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++		2	27
black hickory	Carya texana	NDL	High	23.9	32.9	1.4	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++		1	28
water elm	Planera aquatica	NSL	Low	4.5	31.1	6.8	No change	No change	Medium	Rare	Poor	Poor				1	29
laurel oak	Quercus laurifolia	NDH	Medium	13.6	30.3	2.2	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++			1	30
sugarberry	Celtis laevigata	NDH	Medium	19.3	27.9	1.4	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++		1	31
sycamore	Platanus occidentalis	NSL	Low	6.8	23.4	3.4	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor				0	32
black cherry	Prunus serotina	WDL	Medium	29.5	22.1	0.8	Sm. inc.	Lg. inc.	Low	Rare	Poor	Fair				1	33
flowering dogwood	Cornus florida	WDL	Medium	34.1	21.4	0.6	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good				1	34
swamp chestnut oak	Quercus michauxii	NSL	Low	10.2	20.3	2.0	Sm. inc.	No change	Medium	Rare	Fair	Poor	Infill +	Infill +		1	35
sweetbay	Magnolia virginiana	NSL	Medium	12.5	20.0	1.6	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++		1	36
black walnut	Juglans nigra	WDH	Low	3.4	18.9	5.5	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor				0	37
bald cypress	Taxodium distichum	NSH	Medium	5.7	14.9	2.6	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +		2	38
water hickory	Carya aquatica	NSL	Medium	8	13.4	1.7	Sm. dec.	No change	Medium	Rare	Very Poor	Poor				0	39
common persimmon	Diospyros virginiana	NSL	Low	8	12.6	1.6	Sm. dec.	No change	High	Rare	Poor	Fair				1	40
Shumard oak	Quercus shumardii	NSL	Low	2.3	11.3	5.0	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor				0	41
red mulberry	Morus rubra	NSL	Low	10.2	10.9	1.1	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor				0	42
blackjack oak	Quercus marilandica	NSL	Medium	13.6	10.6	0.8	Lg. inc.	Lg. inc.	High	Rare	Good	Good	Infill ++	Infill ++		2	43
eastern cottonwood	Populus deltoides	NSH	Low	1.1	10.3	9.1	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor				0	44
swamp tupelo	Nyssa biflora	NDH	Medium	1.1	9.0	7.9	No change	No change	Low	Rare	Very Poor	Very Poor				0	45
slippery elm	Ulmus rubra	WSL	Low	2.3	7.7	3.4	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor				0	46
eastern redbud	Cercis canadensis	NSL	Low	3.4	7.4	2.2	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very 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
river birch	Betula nigra	NSL	Low	4.5	6.7	1.5	Sm. inc.	Sm. inc.	Medium	Rare	Fair	Fair	Infill +	Infill +	1	48
bluejack oak	Quercus incana	NSL	Low	4.5	6.2	1.4	No change	No change	Medium	Rare	Poor	Poor			0	49
redbay	Persea borbonia	NSL	Low	5.7	6.1	1.1	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor	Infill +		2	50
southern magnolia	Magnolia grandiflora	NSL	Low	8	5.8	0.7	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	2	51
bitternut hickory	Carya cordiformis	WSL	Low	3.4	4.7	1.4	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor			0	52
honeylocust	Gleditsia triacanthos	NSH	Low	4.5	3.9	0.9	No change	No change	High	Rare	Fair	Fair	Infill +	Infill +	2	53
shagbark hickory	Carya ovata	WSL	Medium	3.4	3.5	1.0	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	54
pecan	Carya illinoensis	NSH	Low	3.4	3.3	1.0	No change	Lg. inc.	Low	Rare	Very Poor	Fair		Infill +	2	55
boxelder	Acer negundo	WSH	Low	1.1	3.1	2.7	No change	No change	High	Rare	Fair	Fair			0	56
cittamwood/gum bumelia	Sideroxylon lanuginosum ssp.	NSL	Low	3.4	2.7	0.8	Lg. inc.	Lg. inc.	High	Rare	Good	Good		Infill ++	2	57
wild plum	Prunus americana	NSLX	FIA	2.3	1.8	0.8	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	58
cedar elm	Ulmus crassifolia	NDH	Medium	1.1	1.1	1.0	Lg. inc.	Lg. inc.	Low	Rare	Fair	Fair	Infill +	Infill +	2	59
black oak	Quercus velutina	WDH	High	1.1	1.0	0.9	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost			0	60
American basswood	Tilia americana	WSL	Medium	1.1	0.7	0.6	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost			0	61
Virginia pine	Pinus virginiana	NDH	High	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	62
striped maple	Acer pensylvanicum	NSL	Medium	0	0	0	Unknown	New Habitat	Medium	Absent	Unknown	New Habitat			3	63
serviceberry	Amelanchier spp.	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	64
pignut hickory	Carya glabra	WDL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +		3	65
shellbark hickory	Carya laciniosa	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	66
black ash	Fraxinus nigra	WSH	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat			3	67
silverbell	Halesia spp.	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	68
yellow-poplar	Liriodendron tulipifera	WDH	High	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat			3	69
cucumbertree	Magnolia acuminata	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	70
bigleaf magnolia	Magnolia macrophylla	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	71
water tupelo	Nyssa aquatica	NSH	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat	Likely +	Likely +	3	72
pin cherry	Prunus pensylvanica	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	73
scarlet oak	Quercus coccinea	WDL	Medium	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	74
Nuttall oak	Quercus texana	NSH	Medium	0	0	0	Unknown	Unknown	High	Modeled	Unknown	Unknown			0	75
northern red oak	Quercus rubra	WDH	Medium	0	0	0	Unknown	Unknown	High	Absent	Unknown	Unknown			0	76
live oak	Quercus virginiana	NDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate ++	Migrate ++	3	77