

	sq. km	sq. mi	FIA Plots
Area of Region	8,625.0	3,330.1	193

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	2			High	22	23	Increase	22	24	Very Good	9	10	Likely	1	1
Hickory	4			Medium	34	51	No Change	11	12	Good	17	19	Infill	6	9
Maple	5	Abundant	5	Low	32	14	Decrease	28	25	Fair	11	10	Migrate	8	10
Oak	13	Common	26	FIA	3		New	18	20	Poor	10	9			
Pine	6	Rare	33				Unknown	12	10	Very Poor	10	9			
Other	34	Absent	26							FIA Only	0	0			
	64		90		91	88		91	91	Unknown	9	7			
											66	64			

Potential Changes in Climate Variables

Temperature (°F)

Scenario	2009	2039	2069	2099		
Annual	CCSM45	56.0	57.7	59.8	60.1	
Average	CCSM85	56.0	58.1	60.6	63.6	
	GFDL45	56.0	59.1	61.4	62.5	
	GFDL85	56.0	59.2	62.5	66.5	
	HAD45	56.0	58.4	61.8	63.1	
	HAD85	56.0	58.7	62.6	67.1	
Growing Season	CCSM45	71.5	73.3	75.1	75.6	
	CCSM85	71.5	73.5	76.2	79.9	
May—Sep	GFDL45	71.5	75.1	77.8	79.4	
	GFDL85	71.5	75.5	79.3	83.7	
	HAD45	71.5	74.3	77.5	79.2	
	HAD85	71.5	74.3	79.0	83.9	
Coldest Month	CCSM45	32.7	34.7	36.0	36.4	
	CCSM85	32.7	35.2	36.4	37.9	
Average	GFDL45	32.7	35.9	36.4	37.0	
	GFDL85	32.7	35.3	36.4	37.8	
	HAD45	32.7	34.3	36.3	36.5	
	HAD85	32.7	34.7	36.3	38.1	
Warmest Month	CCSM45	77.3	79.4	80.3	80.5	
	CCSM85	77.3	79.4	81.4	82.8	
Average	GFDL45	77.3	80.3	82.0	83.4	
	GFDL85	77.3	81.7	83.8	86.5	
	HAD45	77.3	80.5	82.6	83.6	
	HAD85	77.3	80.9	83.8	87.1	

Precipitation (in)

Scenario	2009	2039	2069	2099		
Annual	CCSM45	42.7	46.4	49.3	49.6	
Total	CCSM85	42.7	47.2	48.6	55.7	
	GFDL45	42.7	47.6	50.9	51.7	
	GFDL85	42.7	44.3	51.0	52.1	
	HAD45	42.7	45.4	46.5	45.2	
	HAD85	42.7	49.2	44.5	47.9	
Growing Season	CCSM45	19.5	23.0	24.5	24.7	
	CCSM85	19.5	23.0	23.4	27.1	
May—Sep	GFDL45	19.5	20.7	22.5	22.9	
	GFDL85	19.5	19.1	22.2	22.6	
	HAD45	19.5	21.5	20.4	18.9	
	HAD85	19.5	22.0	18.7	19.9	

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.

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>.

Prince William Forest Park

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Common Name	Scientific Name	Range	MR	%Cell	FIAsum	FIAiv	ChngCl45	ChngCl85	Adap	Abund	Capabil45	Capabil85	SHIFT45	SHIFT85	SSO	N
yellow-poplar	Liriodendron tulipifera	WDH	High	79.2	1168.8	15.6	Lg. dec.	Lg. dec.	High	Abundant	Good	Good			1	1
white oak	Quercus alba	WDH	Medium	68.1	1031.4	14.9	Sm. dec.	Lg. dec.	High	Abundant	Good	Good			1	2
Virginia pine	Pinus virginiana	NDH	High	61.4	662.0	10.5	Lg. dec.	Lg. dec.	Medium	Abundant	Fair	Fair			0	3
red maple	Acer rubrum	WDH	High	74.9	661.7	9.2	No change	No change	High	Abundant	Very Good	Very Good			1	4
sweetgum	Liquidambar styraciflua	WDH	High	43	618.9	12.9	Sm. inc.	Sm. inc.	Medium	Abundant	Very Good	Very Good			1	5
American beech	Fagus grandifolia	WDH	High	56.6	419.2	7.8	Lg. dec.	Lg. dec.	Medium	Common	Poor	Poor			0	6
eastern redcedar	Juniperus virginiana	WDH	Medium	48.9	370.9	7.9	No change	No change	Medium	Common	Fair	Fair			1	7
chestnut oak	Quercus prinus	NDH	High	32.4	297.2	11.3	Lg. dec.	Lg. dec.	High	Common	Fair	Fair			1	8
blackgum	Nyssa sylvatica	WDL	Medium	71.3	297.1	3.9	No change	No change	High	Common	Good	Good			1	9
loblolly pine	Pinus taeda	WDH	High	16.9	288.1	13.6	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	10
mockernut hickory	Carya alba	WDL	Medium	49.7	276.0	5.3	No change	No change	High	Common	Good	Good			1	11
southern red oak	Quercus falcata	WDL	Medium	40.1	272.4	5.7	Sm. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	12
pignut hickory	Carya glabra	WDL	Medium	51.9	264.6	4.9	Sm. dec.	Lg. dec.	Medium	Common	Poor	Poor			0	13
black oak	Quercus velutina	WDH	High	43.6	238.1	4.9	Sm. inc.	No change	Medium	Common	Good	Fair			1	14
American holly	Ilex opaca	NSL	Medium	41.9	203.7	3.8	Sm. dec.	Sm. dec.	Medium	Common	Poor	Poor			0	15
northern red oak	Quercus rubra	WDH	Medium	42.7	187.1	4.6	Sm. dec.	Sm. dec.	High	Common	Fair	Fair			1	16
black locust	Robinia pseudoacacia	NDH	Low	25.5	145.0	8.6	Lg. dec.	Lg. dec.	Medium	Common	Poor	Poor			0	17
scarlet oak	Quercus coccinea	WDL	Medium	33.3	116.2	3.7	Sm. dec.	Lg. dec.	Medium	Common	Poor	Poor			0	18
white ash	Fraxinus americana	WDL	Medium	32.9	105.1	4.7	Sm. inc.	Sm. inc.	Low	Common	Fair	Fair			1	19
pin oak	Quercus palustris	NSH	Low	11.6	93.7	8.1	Lg. dec.	Sm. dec.	Low	Common	Very Poor	Poor	Infill +		0	20
green ash	Fraxinus pennsylvanica	WSH	Low	14.7	88.2	7.9	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	21
American elm	Ulmus americana	WDH	Medium	25	76.8	4.4	Sm. inc.	Lg. inc.	Medium	Common	Good	Very Good			1	22
willow oak	Quercus phellos	NSL	Low	20.9	73.7	2.9	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	23
black walnut	Juglans nigra	WDH	Low	18.6	67.5	3.6	Sm. dec.	Sm. dec.	Medium	Common	Poor	Poor			0	24
flowering dogwood	Cornus florida	WDL	Medium	28.9	66.8	2.2	No change	No change	Medium	Common	Fair	Fair			1	25
post oak	Quercus stellata	WDH	High	14.4	58.6	3.6	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good	Infill ++	Infill ++	1	26
bitternut hickory	Carya cordiformis	WSL	Low	8.1	58.5	7.2	No change	No change	High	Common	Good	Good			1	27
black cherry	Prunus serotina	WDL	Medium	35	55.0	1.8	Lg. inc.	Lg. inc.	Low	Common	Good	Good			1	28
American hornbeam; musclev	Carpinus caroliniana	WDL	Low	25	54.2	2.3	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	29
hackberry	Celtis occidentalis	WDH	Medium	15.7	52.6	4.2	Sm. dec.	No change	High	Common	Fair	Good			1	30
sycamore	Platanus occidentalis	NSL	Low	19.1	50.8	5.9	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	31
bigtooth aspen	Populus grandidentata	NSL	Medium	12.8	47.0	3.7	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	32
eastern redbud	Cercis canadensis	NSL	Low	5.8	40.0	6.9	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	33
boxelder	Acer negundo	WSH	Low	12.2	38.4	4.2	Sm. dec.	Sm. inc.	High	Rare	Poor	Good			1	34
sassafras	Sassafras albidum	WSL	Low	23.3	38.0	1.9	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	35
common persimmon	Diospyros virginiana	NSL	Low	18.9	27.0	1.7	No change	Lg. inc.	High	Rare	Fair	Good			1	36
river birch	Betula nigra	NSL	Low	10.4	25.1	2.4	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			1	37
shortleaf pine	Pinus echinata	WDH	High	9.3	24.3	2.6	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	1	38
slippery elm	Ulmus rubra	WSL	Low	9.3	21.4	2.3	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	1	39
ailanthus	Ailanthus altissima	NSL	FIA	10.1	16.8	2.6	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	40
cherrybark oak; swamp red o.	Quercus pagoda	NSL	Medium	2	13.8	2.7	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	2	41
eastern white pine	Pinus strobus	WDH	High	2.3	13.3	5.7	Very Lg. dec.	Very Lg. dec.	Low	Rare	Lost	Lost			0	42
swamp chestnut oak	Quercus michauxii	NSL	Low	1.2	13.0	11.2	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	2	43
pawpaw	Asimina triloba	NSL	Low	6.5	11.9	1.5	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	44
sweet birch	Betula lenta	NDH	High	4.6	11.1	2.4	Lg. dec.	Lg. dec.	Low	Rare	Very Poor	Very Poor			0	45
paulownia	Paulownia tomentosa	NSL	FIA	5.4	6.2	0.9	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	46
silver maple	Acer saccharinum	NSH	Low	1.2	5.3	4.6	No change	No change	High	Rare	Fair	Fair		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
shagbark hickory	Carya ovata	WSL	Medium	3.5	5.2	1.5	Sm. inc.	Sm. inc.	Medium	Rare	Fair	Fair	Infill +	Infill +	2	48
serviceberry	Amelanchier spp.	NSL	Low	2.3	4.4	1.9	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	49
sourwood	Oxydendrum arboreum	NDL	High	1.2	3.4	2.9	Sm. inc.	No change	High	Rare	Good	Fair		Infill +	2	50
honeylocust	Gleditsia triacanthos	NSH	Low	2.3	3.3	1.4	Lg. dec.	Sm. inc.	High	Rare	Poor	Good			2	51
red mulberry	Morus rubra	NSL	Low	1.2	2.8	2.4	Lg. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	52
sugar maple	Acer saccharum	WDH	High	2.3	2.7	1.2	Lg. inc.	Lg. inc.	High	Rare	Good	Good			2	53
blackjack oak	Quercus marilandica	NSL	Medium	2.3	2.6	1.1	No change	Lg. inc.	High	Rare	Fair	Good			2	54
pitch pine	Pinus rigida	NSH	High	1.2	2.0	1.7	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost			0	55
eastern hemlock	Tsuga canadensis	NSH	High	1.2	1.6	1.4	Very Lg. dec.	Very Lg. dec.	Low	Rare	Lost	Lost			0	56
Norway maple	Acer platanoides	NSL	FIA	4.6	1.5	5.2	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	57
cucumbertree	Magnolia acuminata	NSL	Low	1.2	1.5	1.3	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	58
eastern hophornbeam; ironw	Ostrya virginiana	WSL	Low	1.2	1.3	1.1	Lg. inc.	Lg. inc.	High	Rare	Good	Good			2	59
pond pine	Pinus serotina	NSH	Medium	1.2	1.2	1.0	Very Lg. dec.	Very Lg. dec.	Low	Rare	Lost	Lost			0	60
quaking aspen	Populus tremuloides	WDH	High	1.1	1.1	0.9	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	61
sweetbay	Magnolia virginiana	NSL	Medium	1.2	0.7	0.6	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	62
laurel oak	Quercus laurifolia	NDH	Medium	1.2	0.7	0.6	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	63
winged elm	Ulmus alata	WDL	Medium	1.2	0.3	0.3	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	64
slash pine	Pinus elliotii	NDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate ++	3	65
longleaf pine	Pinus palustris	NSH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate ++	3	66
bald cypress	Taxodium distichum	NSH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate ++	3	67
florida maple	Acer barbatum	NSL	Low	0	0	0	Unknown	New Habitat	High	Absent	Unknown	New Habitat		Migrate +	3	68
striped maple	Acer pensylvanicum	NSL	Medium	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	69
mountain maple	Acer spicatum	NSL	Low	0	0	0	Unknown	Unknown	High	Absent	Unknown	Unknown			0	70
yellow birch	Betula alleghaniensis	NDL	High	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	71
cittamwood/gum bumelia	Sideroxylon lanuginosum ssp.	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat			0	72
water hickory	Carya aquatica	NSL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	73
pecan	Carya illinoensis	NSH	Low	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat		Migrate +	3	74
shellbark hickory	Carya laciniosa	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	75
black hickory	Carya texana	NDL	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			0	76
sugarberry	Celtis laevigata	NDH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate ++	3	77
black ash	Fraxinus nigra	WSH	Medium	0	0	0	Unknown	Unknown	Low	Absent	Unknown	Unknown			0	78
loblolly-bay	Gordonia lasianthus	NSH	Medium	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0	79
water tupelo	Nyssa aquatica	NSH	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	80
swamp tupelo	Nyssa biflora	NDH	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat	Migrate ++	Migrate ++	3	81
redbay	Persea borbonia	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate +		3	82
water elm	Planera aquatica	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	83
pin cherry	Prunus pensylvanica	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	84
overcup oak	Quercus lyrata	NSL	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat		Migrate +	3	85
chinkapin oak	Quercus muehlenbergii	NSL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +		3	86
water oak	Quercus nigra	WDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate ++	Migrate ++	3	87
live oak	Quercus virginiana	NDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	88
bluejack oak	Quercus incana	NSL	Low	0	0	0	Unknown	New Habitat	Medium	Absent	Unknown	New Habitat			3	89
black willow	Salix nigra	NSH	Low	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat	Likely +	Likely +	3	90
cedar elm	Ulmus crassifolia	NDH	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat			0	91

