

	sq. km	sq. mi	FIA Plots
Area of Region	8,200.0	3,166.0	424

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	Increase	No Change	Decrease	New	Unknown	Scenario RCP45	Scenario RCP85	Very Good	Good	Fair	Poor	Very Poor	FIA Only	Unknown	SHIFT RCP45	SHIFT RCP85		
Ash	3																								
Hickory	4																								
Maple	4	6		18	15			16	17			5	5									1	1		
Oak	6	15		24	35			4	4			11	13									5	6		
Pine	3	22		15	8			20	19			8	5									2	9		
Other	23	16		3				13	14			9	9									8	16		
	43	59		60	58			60	60			43	38												

Potential Changes in Climate Variables

Temperature (°F)

Scenario	2009	2039	2069	2099		
Annual	CCSM45	45.3	47.2	49.7	49.8	
Average	CCSM85	45.3	47.6	50.3	53.5	
	GFDL45	45.3	48.1	51.4	52.6	
	GFDL85	45.3	48.8	52.6	57.0	
	HAD45	45.3	48.3	51.7	53.5	
	HAD85	45.3	48.4	52.8	58.1	
Growing Season	CCSM45	61.5	63.5	65.7	66.2	
	CCSM85	61.5	63.8	66.5	70.4	
May—Sep	GFDL45	61.5	64.7	69.0	70.7	
	GFDL85	61.5	66.1	70.4	75.4	
	HAD45	61.5	65.0	67.9	70.3	
	HAD85	61.5	64.6	69.9	75.7	
Coldest Month	CCSM45	20.0	22.1	24.1	24.3	
	CCSM85	20.0	23.0	24.3	26.3	
Average	GFDL45	20.0	22.8	24.1	24.8	
	GFDL85	20.0	23.4	24.7	26.7	
	HAD45	20.0	21.4	24.5	24.7	
	HAD85	20.0	22.6	25.0	28.0	
Warmest Month	CCSM45	67.3	69.5	70.9	71.2	
	CCSM85	67.3	70.0	71.6	74.0	
Average	GFDL45	67.3	70.3	72.7	74.0	
	GFDL85	67.3	72.0	74.5	77.6	
	HAD45	67.3	71.2	73.0	74.7	
	HAD85	67.3	71.6	75.1	79.3	

Precipitation (in)

Scenario	2009	2039	2069	2099		
Annual	CCSM45	45.4	46.3	45.9	48.3	
Total	CCSM85	45.4	46.6	47.8	49.5	
	GFDL45	45.4	50.1	51.5	51.0	
	GFDL85	45.4	47.1	51.4	52.2	
	HAD45	45.4	45.8	46.6	46.7	
	HAD85	45.4	47.4	44.7	48.5	
Growing Season	CCSM45	22.0	22.3	21.7	22.8	
	CCSM85	22.0	21.4	22.2	22.1	
May—Sep	GFDL45	22.0	23.6	23.1	22.4	
	GFDL85	22.0	21.8	22.5	21.8	
	HAD45	22.0	22.0	20.3	21.1	
	HAD85	22.0	22.1	19.0	19.8	

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
red maple	Acer rubrum	WDH	High	98.8	2598.1	26.3	Sm. dec.	Lg. dec.	High	Abundant	Good	Good			1	1
black cherry	Prunus serotina	WDL	Medium	92.7	1609.1	17.4	Sm. dec.	Sm. dec.	Low	Abundant	Fair	Fair			0	2
sugar maple	Acer saccharum	WDL	High	84.1	933.7	11.1	Sm. dec.	Sm. dec.	High	Abundant	Good	Good			1	3
American beech	Fagus grandifolia	WDH	High	86.6	792.9	9.2	Lg. dec.	Lg. dec.	Medium	Abundant	Fair	Fair			0	4
eastern hemlock	Tsuga canadensis	NSH	High	68.3	721.0	10.6	Lg. dec.	Lg. dec.	Low	Abundant	Poor	Poor			0	5
sweet birch	Betula lenta	NDH	High	87.8	569.7	6.5	Sm. dec.	Lg. dec.	Low	Abundant	Fair	Poor			0	6
northern red oak	Quercus rubra	WDH	Medium	58.5	490.7	8.4	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good			1	7
white oak	Quercus alba	WDH	Medium	39	311.8	8.0	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	8
white ash	Fraxinus americana	WDL	Medium	57.3	239.1	4.2	Sm. inc.	Sm. inc.	Low	Common	Fair	Fair			1	9
yellow birch	Betula alleghaniensis	NDL	High	63.4	217.9	3.4	Lg. dec.	Lg. dec.	Medium	Common	Poor	Poor			0	10
pin cherry	Prunus pensylvanica	NSL	Low	28	132.3	4.7	Lg. dec.	Very Lg. dec.	Medium	Common	Poor	Lost			0	11
serviceberry	Amelanchier spp.	NSL	Low	50	112.3	2.3	Lg. dec.	Lg. dec.	Medium	Common	Poor	Poor			0	12
quaking aspen	Populus tremuloides	WDH	High	20.7	85.9	4.1	Lg. dec.	Very Lg. dec.	Medium	Common	Poor	Lost			0	13
black oak	Quercus velutina	WDH	High	23.2	84.6	3.7	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	14
eastern white pine	Pinus strobus	WDH	High	23.2	83.0	3.6	Lg. inc.	Lg. inc.	Low	Common	Good	Good			1	15
American hornbeam; musclev	Carpinus caroliniana	WSL	Low	39	74.2	1.9	Lg. dec.	No change	Medium	Common	Poor	Fair			1	16
chestnut oak	Quercus prinus	NDH	High	22	73.7	3.4	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	17
bigtooth aspen	Populus grandidentata	NSL	Medium	20.7	67.0	3.2	Sm. inc.	Sm. dec.	Medium	Common	Good	Poor			1	18
cucumbertree	Magnolia acuminata	NSL	Low	36.6	63.7	1.7	No change	Sm. dec.	Medium	Common	Fair	Poor			1	19
shagbark hickory	Carya ovata	WSL	Medium	7.3	61.7	8.4	No change	No change	Medium	Common	Fair	Fair	Infill +	Infill +	1	20
American basswood	Tilia americana	WSL	Medium	23.2	52.5	2.3	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	21
yellow-poplar	Liriodendron tulipifera	WDH	High	24.4	47.8	2.0	Lg. inc.	Lg. inc.	High	Rare	Good	Good			1	22
eastern hophornbeam; ironw	Ostrya virginiana	WSL	Low	40.2	45.0	1.1	No change	Sm. inc.	High	Rare	Fair	Good			1	23
striped maple	Acer pensylvanicum	NSL	Medium	26.8	36.8	1.4	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	24
blackgum	Nyssa sylvatica	WDL	Medium	23.2	36.7	1.6	Lg. inc.	Lg. inc.	High	Rare	Good	Good			1	25
pignut hickory	Carya glabra	WDL	Medium	18.3	35.8	2.0	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			1	26
sassafras	Sassafras albidum	WSL	Low	12.2	32.0	2.6	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			1	27
white spruce	Picea glauca	NSL	Medium	6.1	31.4	5.2	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost			0	28
scarlet oak	Quercus coccinea	WDL	Medium	12.2	28.8	2.4	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	1	29
Norway spruce	Picea abies	NSH	FIA	3.7	27.4	7.5	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	30
black locust	Robinia pseudoacacia	NDH	Low	2.4	20.9	8.6	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			1	31
red pine	Pinus resinosa	NSH	Medium	3.7	20.0	5.5	Lg. dec.	Very Lg. dec.	Low	Rare	Very Poor	Lost			0	32
green ash	Fraxinus pennsylvanica	WSH	Low	3.7	18.3	5.0	Sm. dec.	No change	Medium	Rare	Very Poor	Poor		Infill +	2	33
Scots pine	Pinus sylvestris	NSH	FIA	4.9	15.1	3.1	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	34
American elm	Ulmus americana	WDH	Medium	7.3	12.3	1.7	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	1	35
bitternut hickory	Carya cordiformis	WSL	Low	2.4	6.5	2.7	Sm. dec.	Sm. inc.	High	Rare	Poor	Good		Infill ++	2	36
red spruce	Picea rubens	NDH	High	1.2	5.7	4.6	Lg. dec.	Very Lg. dec.	Low	Rare	Very Poor	Lost			0	37
black ash	Fraxinus nigra	WSH	Medium	2.4	5.4	2.2	Very Lg. dec.	Very Lg. dec.	Low	Rare	Lost	Lost			0	38
American chestnut	Castanea dentata	NSLX	FIA	3.7	2.4	0.7	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	39
mockernut hickory	Carya alba	WDL	Medium	3.7	2.3	0.6	Lg. inc.	Lg. inc.	High	Rare	Good	Good	Infill ++	Infill ++	2	40
slippery elm	Ulmus rubra	WSL	Low	1.2	0.7	0.6	Sm. inc.	Lg. inc.	Medium	Rare	Fair	Good	Infill +		2	41
shingle oak	Quercus imbricaria	NDH	Medium	1.2	0.5	0.4	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	42
mountain maple	Acer spicatum	NSL	Low	1.2	0.2	0.2	Lg. dec.	Lg. dec.	High	Rare	Poor	Poor			0	43
eastern redcedar	Juniperus virginiana	WDH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate ++	3	44
shortleaf pine	Pinus echinata	WDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate ++	3	45
Virginia pine	Pinus virginiana	NDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +	3	46
cittamwood/gum bumelia	Sideroxylon lanuginosum ssp.	NSL	Low	0	0	0	Unknown	Unknown	High	Absent	Unknown	Unknown			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
black hickory	<i>Carya texana</i>	NDL	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			0	48
sugarberry	<i>Celtis laevigata</i>	NDH	Medium	0	0	0	Unknown	New Habitat	Medium	Absent	Unknown	New Habitat			0	49
eastern redbud	<i>Cercis canadensis</i>	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +	3	50
flowering dogwood	<i>Cornus florida</i>	WDL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +	3	51
American holly	<i>Ilex opaca</i>	NSL	Medium	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0	52
black walnut	<i>Juglans nigra</i>	WDH	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Likely +	Likely +	3	53
sweetgum	<i>Liquidambar styraciflua</i>	WDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate ++	3	54
sourwood	<i>Oxydendrum arboreum</i>	NDL	High	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	55
sycamore	<i>Platanus occidentalis</i>	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate ++	Migrate ++	3	56
cherrybark oak; swamp red o.	<i>Quercus pagoda</i>	NSL	Medium	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	57
blackjack oak	<i>Quercus marilandica</i>	NSL	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat			3	58
post oak	<i>Quercus stellata</i>	WDH	High	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat		Migrate ++	3	59
winged elm	<i>Ulmus alata</i>	WDL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	60