

sq. km sq. mi FIA Plots
Area of Region 44,632 17,232 1,723

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
Ash	2								RCP45	RCP85
Hickory	5									
Maple	8	Abundant	High	24	Increase	32	42	Very Good	12	12
Oak	18	Common	Medium	34	No Change	29	21	Good	20	27
Pine	6	Rare	Low	46	Decrease	20	18	Fair	15	15
Other	52	Absent	FIA	10	New	15	17	Poor	19	14
	91	114		114	Unknown	18	16	Very Poor	15	13
				110		114	114	FIA Only	7	7
								Unknown	8	6
									96	94

Potential Changes in Climate Variables

Temperature (°F)

Scenario	2009	2039	2069	2099	
Annual	CCSM45	53.9	55.7	57.9	58.0
Average	CCSM85	53.9	56.1	58.6	61.4
	GFDL45	53.9	56.6	59.1	59.9
	GFDL85	53.9	56.9	60.2	63.9
	HAD45	53.9	56.2	59.3	60.5
	HAD85	53.9	56.5	60.6	64.7
Growing	CCSM45	67.5	69.4	71.3	71.8
Season	CCSM85	67.5	69.6	72.3	76.0
May—Sep	GFDL45	67.5	70.7	73.5	74.9
	GFDL85	67.5	71.2	75.1	79.2
	HAD45	67.5	70.6	73.5	75.0
	HAD85	67.5	70.6	76.3	80.4
Coldest	CCSM45	33.4	35.5	36.5	36.7
Month	CCSM85	33.4	36.0	36.9	38.1
Average	GFDL45	33.4	36.6	36.8	37.3
	GFDL85	33.4	35.4	36.4	37.3
	HAD45	33.4	33.6	35.6	35.9
	HAD85	33.4	34.5	35.9	

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Climate Change Atlas Tree Species

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Common Name	Scientific Name	Range	MR	%Cell	FIAsum	FIAiv	ChngCl45	ChngCl85	Adap	Abund	Capabil45	Capabil85	SHIFT45	SHIFT85	SSO	N
chestnut oak	Quercus prinus	NDH	High	82.7	1402.5	11.4	No change	No change	High	Abundant	Very Good	Very Good			1	1
yellow-poplar	Liriodendron tulipifera	WDH	High	89	1355.8	10.5	Sm. dec.	Sm. dec.	High	Abundant	Good	Good			1	2
red maple	Acer rubrum	WDH	High	95	1228.6	9.1	No change	Sm. dec.	High	Abundant	Very Good	Good			1	3
eastern white pine	Pinus strobus	WDH	High	65.3	811.4	9.4	No change	No change	Low	Abundant	Fair	Fair			0	4
Virginia pine	Pinus virginiana	NDH	High	46.2	519.3	5.9	Sm. inc.	Sm. inc.	Medium	Abundant	Very Good	Very Good			1	5
northern red oak	Quercus rubra	WDH	Medium	79.8	507.6	4.8	Sm. inc.	Sm. inc.	High	Abundant	Very Good	Very Good			1	6
sourwood	Oxydendrum arboreum	NDL	High	68.9	506.1	5.3	No change	Sm. dec.	High	Abundant	Very Good	Good			1	7
scarlet oak	Quercus coccinea	WDL	Medium	69.8	498.7	5.2	No change	No change	Medium	Common	Fair	Fair			1	8
white oak	Quercus alba	WDH	Medium	70.3	492.6	4.5	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good			1	9
sweet birch	Betula lenta	NDH	High	71.8	413.6	4.8	Sm. dec.	Sm. dec.	Low	Common	Poor	Poor			0	10
black locust	Robinia pseudoacacia	NDH	Low	74.4	362.2	3.6	No change	No change	Medium	Common	Fair	Fair			1	11
eastern hemlock	Tsuga canadensis	NSH	High	57.7	330.4	4.7	No change	No change	Low	Common	Poor	Poor			0	12
blackgum	Nyssa sylvatica	WDL	Medium	76.2	305.5	2.7	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good			1	13
black oak	Quercus velutina	WDH	High	60.3	261.9	2.8	Sm. inc.	Lg. inc.	Medium	Common	Good	Very Good			1	14
pignut hickory	Carya glabra	WDL	Medium	63.4	253.1	2.8	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	15
black cherry	Prunus serotina	WDL	Medium	48.6	199.4	2.3	Sm. inc.	Sm. inc.	Low	Common	Fair	Fair			1	16
mockernut hickory	Carya alba	WDL	Medium	47.6	183.3	2.4	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	17
white ash	Fraxinus americana	WDL	Medium	33.6	144.6											

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American holly	Ilex opaca	NSL	Medium	13.5	23.1	1.2	Sm. dec.	Sm. inc.	Medium	Rare	Very Poor	Fair			1	48
eastern redbud	Cercis canadensis	NSL	Low	8.4	20.5	0.8	No change	No change	Medium	Rare	Poor	Poor			1	49
boxelder	Acer negundo	WSH	Low	3.4	20.0	2.2	Sm. dec.	No change	High	Rare	Poor	Fair	Infill +	Infill +	2	50
American elm	Ulmus americana	WDH	Medium	8	18.5	1.1	No change	Sm. inc.	Medium	Rare	Poor	Fair	Infill +	Infill +	1	51
eastern hophornbeam; ironw	Ostrya virginiana	WSL	Low	9.7	18.1	1.2	No change	Sm. inc.	High	Rare	Fair	Good	Infill +	Infill ++	1	52
pin cherry	Prunus pensylvanica	NSL	Low	4.9	17.3	3.1	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	53
paulownia	Paulownia tomentosa	NSL	FIA	2.6	12.3	1.5	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	54
hackberry	Celtis occidentalis	WDH	Medium	3.3	9.3	0.8	No change	No change	High	Rare	Fair	Fair	Infill +	Infill +	2	55
American chestnut	Castanea dentata	NSLX	FIA	11.1	9.0	0.7	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	56
slippery elm	Ulmus rubra	WSL	Low	4.5	7.9	0.8	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	2	57
black willow	Salix nigra	NSH	Low	1	7.1	4.0	Sm. dec.	Sm. inc.	Low	Rare	Very Poor	Poor		Infill +	2	58
chinkapin oak	Quercus muehlenbergii	NSL	Medium	1.2	6.5	1.9	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	2	59
silver maple	Acer saccharinum	NSH	Low	0.6	5.9	3.5	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor		Infill +	2	60
red mulberry	Morus rubra	NSL	Low	3.8	5.7	0.9	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	1	61
winged elm	Ulmus alata	WDL	Medium	2.1	5.7	1.2	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	2	62
pin oak	Quercus palustris	NSH	Low	0.2	5.6	1.2	Sm. dec.	Sm. dec.	Low	Rare	Very Poor	Very Poor			2	63
swamp chestnut oak	Quercus michauxii	NSL	Low	0.1	4.4	2.2	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			2	64
chokecherry	Prunus virginiana	NSLX	FIA	0.5	4.3	6.0	Unknown	Unknown								

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longleaf pine	Pinus palustris	NSH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate ++	Migrate ++	3	95
pond cypress	Taxodium ascendens	NSH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate ++		3	96
northern white-cedar	Thuja occidentalis	WSH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	97
Ohio buckeye	Aesculus glabra	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	98
cittamwood/gum bumelia	Sideroxylon lanuginosum ssp.	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat			3	99
water hickory	Carya aquatica	NSL	Medium	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	100
pecan	Carya illinoensis	NSH	Low	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat		Migrate +	3	101
shellbark hickory	Carya laciniosa	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	102
black hickory	Carya texana	NDL	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	103
black ash	Fraxinus nigra	WSH	Medium	0	0	0	Unknown	New Habitat	Low	Absent	Unknown	New Habitat			3	104
blue ash	Fraxinus quadrangulata	NSL	Low	0	0	0	Unknown	Unknown	Low	Absent	Unknown	Unknown			0	105
Osage-orange	Maclura pomifera	NDH	Medium	0	0	0	Unknown	New Habitat	High	Absent	Unknown	New Habitat		Likely +	3	106
sweetbay	Magnolia virginiana	NSL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	107
swamp tupelo	Nyssa biflora	NDH	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat	Likely +	Likely +	3	108
redbay	Persea borbonia	NSL	Low	0	0	0	Unknown	Unknown	High	Absent	Unknown	Unknown			0	109
swamp white oak	Quercus bicolor	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	110
laurel oak	Quercus laurifolia	NDH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate ++	Migrate +	3	111
live oak	Quercus virginiana	NDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate ++	3	112
bluejack oak	Quercus incana	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat					