

sq. km sq. mi FIA Plots
Area of Region 8,005.1 3,090.8 510

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	Low	Reliability	Adaptability	Scenario RCP45	Scenario RCP85	Scenario RCP45	Scenario RCP85	SHIFT RCP45	SHIFT RCP85				
Ash	3					Increase	13	13	Very Good	6	6	Likely	0	0	
Hickory	0					No Change	6	6	Good	7	7	Infill	2	4	
Maple	4	Abundant	6	High	18	17	Decrease	14	14	Fair	8	7	Migrate	10	13
Oak	3	Common	17	Medium	22	34	New	22	25	Poor	7	9		12	17
Pine	3	Rare	14	Low	22	14	Unknown	11	8	Very Poor	4	2			
Other	24	Absent	28	FIA	4					FIA Only	3	3			
	37		65		66	65		66	66		42	38			

Potential Changes in Climate Variables

Temperature (°F)

Scenario	2009	2039	2069	2099		
Annual	CCSM45	40.6	42.2	45.2	45.3	
Average	CCSM85	40.6	43.0	46.2	49.8	
	GFDL45	40.6	43.9	46.6	48.3	
	GFDL85	40.6	44.1	47.8	53.3	
	HAD45	40.6	43.9	47.3	49.3	
	HAD85	40.6	44.3	48.4	54.4	
Growing Season	CCSM45	60.0	61.6	64.2	64.4	
	CCSM85	60.0	62.4	65.2	69.3	
May—Sep	GFDL45	60.0	64.1	67.6	69.8	
	GFDL85	60.0	64.6	68.8	75.1	
	HAD45	60.0	63.3	65.9	68.3	
	HAD85	60.0	63.2	67.3	73.3	
Coldest Month	CCSM45	9.9	11.2	13.8	13.8	
	CCSM85	9.9	11.2	13.6	16.1	
Average	GFDL45	9.9	13.1	15.2	15.7	
	GFDL85	9.9	14.0	15.8	19.2	
	HAD45	9.9	12.0	16.3	16.1	
	HAD85	9.9	15.5	18.4	22.4	
Warmest Month	CCSM45	66.6	68.5	70.1	70.4	
	CCSM85	66.6	69.5	71.4	73.8	
Average	GFDL45	66.6	70.8	72.5	74.1	
	GFDL85	66.6	71.6	73.9	77.1	
	HAD45	66.6	70.3	71.5	73.4	
	HAD85	66.6	70.5	72.6	76.6	

Precipitation (in)

Scenario	2009	2039	2069	2099		
Annual	CCSM45	32.2	33.7	33.5	33.2	
Total	CCSM85	32.2	31.6	32.7	32.9	
	GFDL45	32.2	35.2	36.7	35.0	
	GFDL85	32.2	35.0	38.3	37.8	
	HAD45	32.2	33.8	33.4	34.0	
	HAD85	32.2	33.7	35.1	36.4	
Growing Season	CCSM45	18.3	18.8	17.8	18.0	
Season	CCSM85	18.3	17.6	17.6	16.4	
May—Sep	GFDL45	18.3	20.1	19.9	19.0	
	GFDL85	18.3	19.9	21.1	19.3	
	HAD45	18.3	18.1	16.7	16.8	
	HAD85	18.3	17.9	16.4	16.3	

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.

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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
quaking aspen	Populus tremuloides	WDH	High	94.7	1993.0	16.7	Sm. dec.	Lg. dec.	Medium	Abundant	Fair	Fair			0	1
sugar maple	Acer saccharum	WDH	High	81.3	1487.9	14.6	No change	No change	High	Abundant	Very Good	Very Good			1	2
red maple	Acer rubrum	WDH	High	94.2	1158.4	10.2	No change	No change	High	Abundant	Very Good	Very Good			1	3
paper birch	Betula papyrifera	WDH	High	77.8	1053.6	7.6	Lg. dec.	Lg. dec.	Medium	Abundant	Fair	Fair			0	4
balsam fir	Abies balsamea	NDH	High	90.7	856.2	7.8	Lg. dec.	Lg. dec.	Low	Abundant	Poor	Poor			0	5
black ash	Fraxinus nigra	WSH	Medium	79.5	644.7	6.6	Sm. dec.	Sm. dec.	Low	Abundant	Fair	Fair			0	6
red pine	Pinus resinosa	NSH	Medium	37.6	420.0	10.1	Sm. dec.	Sm. dec.	Low	Common	Poor	Poor			0	7
northern white-cedar	Thuja occidentalis	WSH	High	50.4	405.1	6.5	No change	No change	Medium	Common	Fair	Fair			1	8
northern red oak	Quercus rubra	WDH	Medium	58.1	327.5	4.6	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	9
bigtooth aspen	Populus grandidentata	NSL	Medium	44.1	305.7	5.9	No change	No change	Medium	Common	Fair	Fair			1	10
yellow birch	Betula alleghaniensis	NDL	High	62.5	292.0	3.8	Sm. dec.	Sm. dec.	Medium	Common	Poor	Poor			0	11
American basswood	Tilia americana	WSL	Medium	56.9	269.8	4.0	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	12
white spruce	Picea glauca	NSL	Medium	67.4	269.3	2.6	Sm. dec.	Sm. dec.	Medium	Common	Poor	Poor			0	13
eastern hemlock	Tsuga canadensis	NSH	High	38.3	227.8	5.2	Sm. inc.	No change	Low	Common	Fair	Poor			1	14
eastern white pine	Pinus strobus	WDH	High	46	213.5	4.2	Lg. inc.	Lg. inc.	Low	Common	Good	Good			1	15
jack pine	Pinus banksiana	NSH	Medium	15	130.8	8.7	Sm. dec.	Sm. dec.	High	Common	Fair	Fair			1	16
black spruce	Picea mariana	NSH	High	32.3	122.0	3.6	Lg. dec.	Lg. dec.	Medium	Common	Poor	Poor			0	17
northern pin oak	Quercus ellipsoidalis	NSH	Medium	19	97.7	4.9	Lg. inc.	Sm. inc.	High	Common	Very Good	Very Good	Infill ++	Infill ++	1	18
eastern hophornbeam; ironw	Ostrya virginiana	WSL	Low	51.6	96.0	1.5	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	19
black cherry	Prunus serotina	WDL	Medium	46.8	80.7	1.7	Lg. inc.	Lg. inc.	Low	Common	Good	Good			1	20
white ash	Fraxinus americana	WDL	Medium	33.7	79.1	1.8	Lg. inc.	Lg. inc.	Low	Common	Good	Good			1	21
tamarack (native)	Larix laricina	NSH	High	17.5	73.4	4.2	Sm. inc.	Sm. inc.	Low	Common	Fair	Fair			1	22
American elm	Ulmus americana	WDH	Medium	31.6	62.9	1.9	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	23
balsam poplar	Populus balsamifera	NSH	Medium	20.6	47.5	2.0	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	24
green ash	Fraxinus pennsylvanica	WSH	Low	31.2	46.8	1.1	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			1	25
serviceberry	Amelanchier spp.	NSL	Low	31.1	29.8	0.7	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	26
mountain maple	Acer spicatum	NSL	Low	14	20.5	1.0	Lg. dec.	Lg. dec.	High	Rare	Poor	Poor			1	27
chokecherry	Prunus virginiana	NSLX	FIA	26.5	18.3	0.7	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	28
pin cherry	Prunus pensylvanica	NSL	Low	10.9	7.6	0.7	Lg. dec.	Very Lg. dec.	Medium	Rare	Very Poor	Lost			0	29
bur oak	Quercus macrocarpa	NDH	Medium	8.6	6.8	0.8	Lg. inc.	Lg. inc.	High	Rare	Good	Good	Infill ++	Infill ++	2	30
Norway spruce	Picea abies	NSH	FIA	1.2	5.5	4.4	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	31
American hornbeam; musclev	Carpinus caroliniana	WSL	Low	3.7	3.9	1.0	No change	No change	Medium	Rare	Poor	Poor		Infill +	1	32
black willow	Salix nigra	NSH	Low	3.7	3.5	0.9	No change	Sm. inc.	Low	Rare	Very Poor	Poor		Infill +	2	33
American mountain-ash	Sorbus americana	NSL	Low	2.5	2.6	1.1	Very Lg. dec.	Very Lg. dec.	Low	Rare	Lost	Lost			0	34
peachleaf willow	Salix amygdaloides	NSLX	FIA	2.5	1.2	0.5	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	35
silver maple	Acer saccharinum	NSH	Low	1.2	0.4	0.3	Lg. inc.	Lg. inc.	High	Rare	Good	Good			2	36
wild plum	Prunus americana	NSLX	FIA	0.9	0.3	0.2	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	37
eastern redcedar	Juniperus virginiana	WDH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate ++	3	38
red spruce	Picea rubens	NDH	High	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat			0	39
boxelder	Acer negundo	WSH	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	40
black maple	Acer nigrum	NSH	Low	0	0	0	Unknown	Unknown	High	Modeled	Unknown	Unknown			0	41
pawpaw	Asimina triloba	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	42
sweet birch	Betula lenta	NDH	High	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat			0	43
bitternut hickory	Carya cordiformis	WSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	44
pignut hickory	Carya glabra	WDL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			0	45
shagbark hickory	Carya ovata	WSL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate ++	3	46
sugarberry	Celtis laevigata	NDH	Medium	0	0	0	Unknown	New Habitat	Medium	Absent	Unknown	New Habitat			0	47

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hackberry	Celtis occidentalis	WDH	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat		Migrate +	3	48
flowering dogwood	Cornus florida	WDL	Medium	0	0	0	Unknown	New Habitat	Medium	Absent	Unknown	New Habitat				0 49
American beech	Fagus grandifolia	WDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	50
blue ash	Fraxinus quadrangulata	NSL	Low	0	0	0	Unknown	Unknown	Low	Absent	Unknown	Unknown				0 51
black walnut	Juglans nigra	WDH	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +	3	52
sweetgum	Liquidambar styraciflua	WDH	High	0	0	0	Unknown	New Habitat	Medium	Absent	Unknown	New Habitat				0 53
yellow-poplar	Liriodendron tulipifera	WDH	High	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat				0 54
bigleaf magnolia	Magnolia macrophylla	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown				0 55
blackgum	Nyssa sylvatica	WDL	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat				0 56
sycamore	Platanus occidentalis	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat				0 57
eastern cottonwood	Populus deltoides	NSH	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	58
white oak	Quercus alba	WDH	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate ++	Migrate ++	3	59
swamp white oak	Quercus bicolor	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	60
scarlet oak	Quercus coccinea	WDL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat				0 61
pin oak	Quercus palustris	NSH	Low	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat				0 62
chestnut oak	Quercus prinus	NDH	High	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat				0 63
black oak	Quercus velutina	WDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate ++	Migrate ++	3	64
black locust	Robinia pseudoacacia	NDH	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	65
slippery elm	Ulmus rubra	WSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +	3	66