

	sq. km	sq. mi	FIA Plots
Area of Region	12,094	4,669.6	185

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	13	Increase	18	17	Very Good	4	4
Hickory	0			Medium	16	No Change	4	4	Good	8	8
Maple	5	Abundant	3	Low	16	Decrease	5	6	Fair	9	8
Oak	2	Common	7	FIA	2	New	16	16	Poor	4	4
Pine	2	Rare	19			Unknown	4	4	Very Poor	1	0
Other	18	Absent	18						FIA Only	2	2
	29		47		47		47	47	Unknown	2	2
										30	28

Potential Changes in Climate Variables

Temperature (°F)

	Scenario	2009	2039	2069	2099
Annual Average	CCSM45	39.0	40.5	43.3	43.9
	CCSM85	39.0	41.3	44.9	48.5
	GFDL45	39.0	43.7	44.2	45.8
	GFDL85	39.0	41.9	45.6	50.7
	HAD45	39.0	42.3	46.0	48.0
	HAD85	39.0	42.8	47.2	53.3
Growing Season May—Sep	CCSM45	61.3	63.0	65.4	66.0
	CCSM85	61.3	64.0	67.0	70.9
	GFDL45	61.3	66.8	67.6	69.3
	GFDL85	61.3	64.7	68.6	74.3
	HAD45	61.3	64.5	67.3	69.7
	HAD85	61.3	64.4	68.2	74.3
Coldest Month Average	CCSM45	2.6	4.3	6.7	6.9
	CCSM85	2.6	3.6	6.5	9.0
	GFDL45	2.6	6.1	7.8	8.4
	GFDL85	2.6	6.7	8.4	11.8
	HAD45	2.6	5.0	9.1	8.8
	HAD85	2.6	8.2	11.9	16.0
Warmest Month Average	CCSM45	68.0	70.2	71.7	72.1
	CCSM85	68.0	71.4	73.6	75.9
	GFDL45	68.0	71.7	73.3	74.7
	GFDL85	68.0	71.8	74.1	77.2
	HAD45	68.0	71.5	73.0	75.0
	HAD85	68.0	71.6	73.9	77.8

Precipitation (in)

	Scenario	2009	2039	2069	2099
Annual Total	CCSM45	22.9	23.0	23.3	22.2
	CCSM85	22.9	22.8	22.9	22.5
	GFDL45	22.9	25.3	26.9	26.5
	GFDL85	22.9	26.6	27.5	27.9
	HAD45	22.9	23.8	22.0	23.4
	HAD85	22.9	23.2	22.9	24.5
Growing Season May—Sep	CCSM45	16.0	15.9	15.6	14.9
	CCSM85	16.0	15.3	15.2	14.6
	GFDL45	16.0	17.9	18.7	18.4
	GFDL85	16.0	18.6	19.1	18.7
	HAD45	16.0	16.0	14.1	14.3
	HAD85	16.0	15.2	13.9	13.6

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	78.6	3113.3	47.8	Lg. dec.	Lg. dec.	Medium	Abundant	Fair	Fair	Infill +	Infill +	0	1
balsam poplar	Populus balsamifera	NSH	Medium	62.2	904.4	17.4	Lg. dec.	Lg. dec.	Medium	Abundant	Fair	Fair	Infill +	Infill +	0	2
bur oak	Quercus macrocarpa	NDH	Medium	58.3	614.7	14.7	Sm. inc.	No change	High	Abundant	Very Good	Very Good	Infill ++	Infill ++	1	3
green ash	Fraxinus pennsylvanica	WSH	Low	41.8	183.4	5.9	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good	Infill ++	Infill ++	1	4
black ash	Fraxinus nigra	WSH	Medium	26.2	172.3	6.0	Sm. inc.	No change	Low	Common	Fair	Poor	Infill +	Infill +	2	5
tamarack (native)	Larix laricina	NSH	High	5.7	165.3	12.2	No change	No change	Low	Common	Poor	Poor	Infill +	Infill +	2	6
American elm	Ulmus americana	WDH	Medium	26.2	121.7	4.6	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good	Infill ++	Infill ++	1	7
boxelder	Acer negundo	WSH	Low	29.3	103.0	6.4	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good	Infill ++	Infill ++	1	8
black spruce	Picea mariana	NSH	High	2.1	83.5	7.1	No change	Sm. dec.	Medium	Common	Fair	Poor	Infill +	Infill +	2	9
balsam fir	Abies balsamea	NDH	High	2.7	57.1	10.3	No change	No change	Low	Common	Poor	Poor	Infill +	Infill +	2	10
American basswood	Tilia americana	WSL	Medium	10	42.4	4.0	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	2	11
paper birch	Betula papyrifera	WDH	High	4.4	23.3	2.3	Sm. inc.	Sm. inc.	Medium	Rare	Fair	Fair	Infill +	Infill +	2	12
chokecherry	Prunus virginiana	NSLX	FIA	22.4	14.0	0.7	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	13
silver maple	Acer saccharinum	NSH	Low	0.2	12.3	4.1	Lg. inc.	Lg. inc.	High	Rare	Good	Good			2	14
eastern hophornbeam; ironw	Ostrya virginiana	WSL	Low	4.4	8.2	2.1	Sm. inc.	Lg. inc.	High	Rare	Good	Good			2	15
sugar maple	Acer saccharum	WDH	High	0.2	7.1	2.4	Lg. inc.	Lg. inc.	High	Rare	Good	Good			2	16
white spruce	Picea glauca	NSL	Medium	1.7	6.6	4.0	Sm. inc.	Sm. inc.	Medium	Rare	Fair	Fair	Infill +	Infill +	2	17
red pine	Pinus resinosa	NSH	Medium	0.3	5.5	2.7	Lg. inc.	Lg. inc.	Low	Rare	Fair	Fair	Infill +	Infill +	2	18
slippery elm	Ulmus rubra	WSL	Low	0.9	5.0	6.0	No change	Sm. inc.	Medium	Rare	Poor	Fair	Infill +	Infill +	2	19
northern white-cedar	Thuja occidentalis	WSH	High	0.1	3.7	0.3	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	20
northern red oak	Quercus rubra	WDH	Medium	3.9	3.5	5.1	Lg. inc.	Lg. inc.	High	Rare	Good	Good			2	21
peachleaf willow	Salix amygdaloides	NSLX	FIA	4.3	3.0	3.9	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	22
pin cherry	Prunus pensylvanica	NSL	Low	0.9	2.9	3.5	Lg. dec.	Very Lg. dec.	Medium	Rare	Very Poor	Lost			0	23
jack pine	Pinus banksiana	NSH	Medium	1.7	2.6	6.3	Sm. inc.	Sm. inc.	High	Rare	Good	Good			2	24
mountain maple	Acer spicatum	NSL	Low	0.7	1.5	0.4	Lg. dec.	Very Lg. dec.	High	Rare	Poor	Lost			0	25
serviceberry	Amelanchier spp.	NSL	Low	7.5	0.5	0.3	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost			0	26
red maple	Acer rubrum	WDH	High	1.5	0.4	1.0	Lg. inc.	Lg. inc.	High	Rare	Good	Good			2	27
black cherry	Prunus serotina	WDL	Medium	0.7	0.4	0.4	Lg. inc.	Lg. inc.	Low	Rare	Fair	Fair		Infill +	2	28
black willow	Salix nigra	NSH	Low	3.4	0.3	1.6	Lg. inc.	Lg. inc.	Low	Rare	Fair	Fair	Infill +	Infill +	2	29
ashe juniper	Juniperus ashei	NDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			0	30
eastern redcedar	Juniperus virginiana	WDH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate ++	3	31
eastern white pine	Pinus strobus	WDH	High	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat	Likely +	Likely +	3	32
yellow birch	Betula alleghaniensis	NDL	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	33
American hornbeam; muscle	Carpinus caroliniana	WSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	34
hackberry	Celtis occidentalis	WDH	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate +	Migrate ++	3	35
honeylocust	Gleditsia triacanthos	NSH	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat			0	36
black walnut	Juglans nigra	WDH	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +	3	37
red mulberry	Morus rubra	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	38
eastern cottonwood	Populus deltoides	NSH	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Likely +	Likely +	3	39
bigtooth aspen	Populus grandidentata	NSL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Likely +	Likely +	3	40
white oak	Quercus alba	WDH	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	41
swamp white oak	Quercus bicolor	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	42
northern pin oak	Quercus ellipsoidalalis	NSH	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Likely +	Likely +	3	43
black oak	Quercus velutina	WDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +	3	44
live oak	Quercus virginiana	NDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			0	45
American mountain-ash	Sorbus americana	NSL	Low	0	0	0	Unknown	Unknown	Low	Absent	Unknown	Unknown			0	46
cedar elm	Ulmus crassifolia	NDH	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat			0	47