

Current and Potential Future Habitat, Capability, and Migration

	sq. km	sq. mi	FIA Plots
Area of Region	37,391	14,437	1,212

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	3									
Hickory	8									
Maple	5	Abundant 4	High 19	26	Increase 28	34	Very Good 10	11	Likely 0	0
Oak	18	Common 17	Medium 37	60	No Change 20	20	Good 18	19	Infill 17	24
Pine	8	Rare 71	Low 42	17	Decrease 34	28	Fair 8	12	Migrate 0	0
Other	50	Absent 15	FIA 10		New 5	5	Poor 23	21		
	92	107	108	103	Unknown 21	21	Very Poor 21	18		
					108	108	FIA Only 7	7		
							Unknown 11	11		
							98	99		

Potential Changes in Climate Variables

Temperature (°F)

Scenario	2009	2039	2069	2099		
Annual	CCSM45	58.9	60.3	62.0	62.0	
Average	CCSM85	58.9	60.5	62.6	64.8	
	GFDL45	58.9	61.2	62.9	63.5	
	GFDL85	58.9	61.2	63.8	66.8	
	HAD45	58.9	60.8	63.0	64.3	
	HAD85	58.9	61.0	64.3	67.5	
Growing Season	CCSM45	69.8	71.0	72.5	72.8	
	CCSM85	69.8	71.1	73.2	76.0	
May—Sep	GFDL45	69.8	72.2	73.9	74.8	
	GFDL85	69.8	72.3	75.1	78.5	
	HAD45	69.8	72.4	74.4	75.9	
	HAD85	69.8	72.3	77.0	80.1	
Coldest Month	CCSM45	42.7	44.7	45.4	45.2	
	CCSM85	42.7	44.5	45.5	46.4	
Average	GFDL45	42.7	45.2	45.4	45.8	
	GFDL85	42.7	44.3	45.2	45.6	
	HAD45	42.7	42.9	44.2	44.8	
	HAD85	42.7	43.7	44.5	45.9	
Warmest Month	CCSM45	73.4	74.8	75.5	75.7	
	CCSM85	73.4	74.9	76.0	77.6	
Average	GFDL45	73.4	75.7	76.3	76.9	
	GFDL85	73.4	75.9	77.1	79.0	
	HAD45	73.4	76.6	77.8	78.5	
	HAD85	73.4	76.8	79.6	81.1	

Precipitation (in)

Scenario	2009	2039	2069	2099		
Annual	CCSM45	39.0	41.3	43.2	44.4	
Total	CCSM85	39.0	41.2	44.4	48.5	
	GFDL45	39.0	43.4	45.5	48.3	
	GFDL85	39.0	42.9	46.8	46.1	
	HAD45	39.0	37.3	39.8	41.1	
	HAD85	39.0	41.1	37.7	39.9	
Growing Season	CCSM45	16.9	18.9	20.0	20.8	
	CCSM85	16.9	18.2	20.1	21.6	
May—Sep	GFDL45	16.9	20.9	22.4	23.2	
	GFDL85	16.9	20.3	23.4	23.5	
	HAD45	16.9	16.6	16.9	16.8	
	HAD85	16.9	17.8	14.5	15.0	

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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Common Name	Scientific Name	Range	MR	%Cell	FIAsum	FIAiv	ChngCl45	ChngCl85	Adap	Abund	Capabil45	Capabil85	SHIFT45	SHIFT85	SSO	N
striped maple	<i>Acer pensylvanicum</i>	NSL	Medium	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	95
yellow birch	<i>Betula alleghaniensis</i>	NDL	High	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	96
cittamwood/gum bumelia	<i>Sideroxylon lanuginosum</i> ssp.	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat			3	97
black hickory	<i>Carya texana</i>	NDL	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	98
black ash	<i>Fraxinus nigra</i>	WSH	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat			0	99
silverbell	<i>Halesia</i> spp.	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	100
cucumbertree	<i>Magnolia acuminata</i>	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	101
bigleaf magnolia	<i>Magnolia macrophylla</i>	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	102
mountain or Fraser magnolia	<i>Magnolia fraseri</i>	NSL	Low	0	0	0	Unknown	Unknown	Low	Absent	Unknown	Unknown			0	103
pin cherry	<i>Prunus pensylvanica</i>	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	104
swamp white oak	<i>Quercus bicolor</i>	NSL	Low	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0	105
pin oak	<i>Quercus palustris</i>	NSH	Low	0	0	0	Unknown	Unknown	Low	Absent	Unknown	Unknown			0	106
American mountain-ash	<i>Sorbus americana</i>	NSL	Low	0	0	0	Unknown	Unknown	Low	Absent	Unknown	Unknown			0	107
cedar elm	<i>Ulmus crassifolia</i>	NDH	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat			3	108