

sq. km sq. mi FIA Plots
Area of Region 13,397 5,172.5 9

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	1			High	1	8	Increase	4	3	Very Good	0	0
Hickory	0			Medium	6	12	No Change	3	5	Good	2	2
Maple	1	Abundant	0	Low	15	3	Decrease	2	1	Fair	5	5
Oak	1	Common	1	FIA	2		New	8	8	Poor	1	1
Pine	0	Rare	10				Unknown	7	7	Very Poor	1	1
Other	8	Absent	11							FIA Only	1	1
	11		22		24	23		24	24	Unknown	5	5
											15	15

Potential Changes in Climate Variables

Temperature (°F)

Scenario	2009	2039	2069	2099		
Annual	CCSM45	41.6	42.5	43.5	44.0	
Average	CCSM85	41.6	42.8	44.0	45.6	
	GFDL45	41.6	44.7	44.0	44.7	
	GFDL85	41.6	43.0	44.6	46.9	
	HAD45	41.6	43.1	44.8	45.4	
	HAD85	41.6	43.3	45.9	47.6	
Growing Season	CCSM45	51.3	52.4	53.6	54.0	
	CCSM85	51.3	52.7	54.0	56.0	
May—Sep	GFDL45	51.3	55.5	54.4	55.5	
	GFDL85	51.3	53.1	55.0	57.9	
	HAD45	51.3	52.6	54.0	54.6	
	HAD85	51.3	52.8	55.4	57.0	
Coldest Month	CCSM45	27.2	28.2	28.7	29.4	
	CCSM85	27.2	28.4	28.8	29.7	
Average	GFDL45	27.2	28.8	28.9	29.1	
	GFDL85	27.2	28.3	29.0	29.7	
	HAD45	27.2	28.4	30.0	29.7	
	HAD85	27.2	29.9	31.7	32.6	
Warmest Month	CCSM45	54.9	56.1	57.1	57.5	
	CCSM85	54.9	56.9	57.7	59.1	
Average	GFDL45	54.9	56.7	57.4	58.2	
	GFDL85	54.9	57.2	57.9	59.9	
	HAD45	54.9	56.1	57.1	57.4	
	HAD85	54.9	56.9	58.2	59.2	

Precipitation (in)

Scenario	2009	2039	2069	2099		
Annual	CCSM45	13.5	14.4	13.8	13.6	
Total	CCSM85	13.5	14.0	14.2	14.2	
	GFDL45	13.5	15.2	16.6	15.9	
	GFDL85	13.5	15.3	16.9	16.1	
	HAD45	13.5	15.2	14.7	15.3	
	HAD85	13.5	14.4	14.4	15.2	
Growing Season	CCSM45	8.9	9.2	8.4	8.4	
	CCSM85	8.9	8.7	8.6	8.4	
May—Sep	GFDL45	8.9	10.2	11.0	10.0	
	GFDL85	8.9	10.0	11.0	10.1	
	HAD45	8.9	9.5	9.4	9.5	
	HAD85	8.9	9.1	8.6	8.2	

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-DGP30 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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HUC 102001 Middle Platte

HUC 6 Watershed Climate Change Atlas Tree Species

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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
eastern redcedar	Juniperus virginiana	WDH	Medium	19.4	50.0	35.0	Sm. dec.	No change	Medium	Common	Poor	Fair	Infill +	Infill +	2	1
red mulberry	Morus rubra	NSL	Low	13.9	46.2	25.4	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			2	2
eastern cottonwood	Populus deltoides	NSH	Low	11.9	31.6	25.0	Sm. inc.	Sm. inc.	Medium	Rare	Fair	Fair	Infill +	Infill +	2	3
green ash	Fraxinus pennsylvanica	WSH	Low	12.6	26.2	15.6	Sm. inc.	No change	Medium	Rare	Fair	Poor	Infill +	Infill +	2	4
peachleaf willow	Salix amygdaloides	NSLX	FIA	14.2	22.6	20.4	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	5
American elm	Ulmus americana	WDH	Medium	17.8	10.9	10.7	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	6
bur oak	Quercus macrocarpa	NDH	Medium	4.5	10.2	54.6	No change	No change	High	Rare	Fair	Fair	Infill +	Infill +	2	7
hackberry	Celtis occidentalis	WDH	Medium	15.6	5.9	6.5	Lg. inc.	Lg. inc.	High	Rare	Good	Good			2	8
honeylocust	Gleditsia triacanthos	NSH	Low	1.6	5.2	9.7	No change	No change	High	Rare	Fair	Fair	Infill +		2	9
Siberian elm	Ulmus pumila	NDH	FIA	3.7	5.2	22.7	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	10
boxelder	Acer negundo	WSH	Low	4.5	1.1	5.9	No change	No change	High	Rare	Fair	Fair	Infill +	Infill +	2	11
mountain maple	Acer spicatum	NSL	Low	0	0	0	Unknown	Unknown	High	Absent	Unknown	Unknown			0	12
American hornbeam; musclev	Carpinus caroliniana	WSL	Low	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0	13
pecan	Carya illinoensis	NSH	Low	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat		Migrate +	3	14
sugarberry	Celtis laevigata	NDH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	15
eastern redbud	Cercis canadensis	NSL	Low	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0	16
black walnut	Juglans nigra	WDH	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +	3	17
Osage-orange	Maclura pomifera	NDH	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	18
eastern hophornbeam; ironw	Ostrya virginiana	WSL	Low	0	0	0	Unknown	Unknown	High	Absent	Unknown	Unknown			0	19
post oak	Quercus stellata	WDH	High	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat		Migrate ++	3	20
black locust	Robinia pseudoacacia	NDH	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate ++	3	21
black willow	Salix nigra	NSH	Low	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat		Migrate +	3	22
American mountain-ash	Sorbus americana	NSL	Low	0	0	0	Unknown	Unknown	Low	Absent	Unknown	Unknown			0	23
slippery elm	Ulmus rubra	WSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	24