ua 20287

USDA Forest Service
Northern Research Station
Landscape Change Research Group
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	sq. km	sq. mi	FIA Plots
Area of Region	8,669.1	3,347.2	5

Species Information

The columns below provide breif 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 Reliability	Adaptability	Potential Change in Habitat Suitability	Scenario RCP45	Scenario RCP85	Capability to Cope or Persist	Scenario RCP45	Scenario RCP85	Migration Potential	SHIFT RCP45	SHIFT RCP85
Ash	0														
Hickory	0		Abundance		Reliability	Adaptability		RCP45	RCP85		RCP45	RCP85		RCP45	RCP85
Maple	0	Abundant	0		High	2	2	Increase	0	0	Very Good	0	0	Likely	5	4
Oak	1	Common	1		Medium	4	7	No Change	2	2	Good	0	0	Infill	2	2
Pine	0	Rare	1		Low	5	2	Decrease	0	0	Fair	1	1	Migrate	0	0
Other	1	Absent	9		FIA	0		New	6	5	Poor	1	1		7	6
	2		**11**			**11**	**11**	Unknown	3	4	Very Poor	0	0			
									11	**11**	FIA Only	0	0			
											Unknown	3	4			
												5	**6**			

Potential Changes in Climate Variables

Temperature (°F)

	Scenario	2009	2039	2069	2099	
Annual	CCSM45	71.9	73.3	74.7	75.1	
Average	CCSM85	71.9	73.5	75.7	78.0	
	GFDL45	71.9	77.6	76.3	77.6	
	GFDL85	71.9	74.5	77.8	81.1	
	HAD45	71.9	73.9	76.1	77.2	
	HAD85	71.9	74.3	77.0	80.2	
Growing	CCSM45	82.3	83.6	84.6	85.0	
Season	CCSM85	82.3	83.8	85.7	88.1	
May—Sep	GFDL45	82.3	89.1	87.3	89.1	
	GFDL85	82.3	85.5	89.0	92.9	
	HAD45	82.3	84.2	85.9	86.8	
	HAD85	82.3	84.4	87.2	90.0	
Coldest	CCSM45	54.8	56.9	57.8	58.1	
Month	CCSM85	54.8	56.9	58.0	59.4	
Average	GFDL45	54.8	58.0	58.2	58.3	
	GFDL85	54.8	56.1	57.3	58.1	
	HAD45	54.8	55.9	57.3	58.1	
	HAD85	54.8	58.1	59.4	61.1	
Warmest	CCSM45	85.3	86.4	86.9	87.1	
Month	CCSM85	85.3	86.8	87.5	88.6	
Average	GFDL45	85.3	88.9	89.7	90.6	
	GFDL85	85.3	89.1	90.6	92.9	
	HAD45	85.3	87.2	87.9	88.6	
	HAD85	85.3	87.5	88.9	90.2	

Precipitation (in)

	Scenario	2009	2039	2069	2099	
Annual	CCSM45	30.5	33.9	34.5	32.3	
Total	CCSM85	30.5	34.2	33.6	30.6	
	GFDL45	30.5	30.5	35.1	26.4	
	GFDL85	30.5	29.7	29.9	28.7	
	HAD45	30.5	32.0	30.4	31.1	
	HAD85	30.5	33.0	32.4	32.1	
Growing	CCSM45	16.1	18.2	18.2	17.0	
Season	CCSM85	16.1	19.5	17.8	15.5	
May—Sep	GFDL45	16.1	16.7	21.0	14.5	
	GFDL85	16.1	16.8	16.6	16.2	
	HAD45	16.1	15.7	15.1	16.1	
	HAD85	16.1	18.0	16.6	15.9	

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.

U.S. Census Bureau Urban Areas
Climate Change Atlas Tree Species
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
live oak	Quercus virginiana	NDH	High	11.7	100.1	54.0	No change	No change	Medium	Common	Fair	Fair	Infill +	Infill +	1	1
sugarberry	Celtis laevigata	NDH	Medium	9.2	9.4	9.8	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	1	2
pawpaw	Asimina triloba	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	3
cittamwood/gum bumelia	Sideroxylon lanuginosum ssp.	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Likely +	Likely +	3	4
pecan	Carya illinoinensis	NSH	Low	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat	Likely +	Likely +	3	5
green ash	Fraxinus pennsylvanica	WSH	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Likely +	Likely +	3	6
American holly	Ilex opaca	NSL	Medium	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	7
bigleaf magnolia	Magnolia macrophylla	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	8
post oak	Quercus stellata	WDH	High	0	0	0	New Habitat	Unknown	High	Absent	New Habitat	Unknown	Likely +		3	9
cabbage palmetto	Sabal palmetto	NDH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			0	10
cedar elm	Ulmus crassifolia	NDH	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat	Likely +	Likely +	3	11