S29 E99

	sq. km	sq. mi	FIA Plots
Area of Region	10,748	4,149.7	158

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			Capability to Cope or Persist			Migration Potential		
									Scenario RCP45	Scenario RCP85		Scenario RCP45	Scenario RCP85		SHIFT RCP45	SHIFT RCP85
Ash	1															
Hickory	2															
Maple	0		Abundant	2		High	4	5	Increase	2	3	Very Good	1	1	Likely	0	0
Oak	4		Common	5		Medium	8	12	No Change	5	4	Good	2	2	Infill	5	5
Pine	0		Rare	10		Low	9	5	Decrease	8	8	Fair	2	3	Migrate	0	0
Other	10		Absent	5		FIA	2		New	0	0	Poor	5	4		5	5
	17			22			23	22	Unknown	8	8	Very Poor	4	4			
										23	23	FIA Only	2	2			
												Unknown	6	6			
													22	22			

Potential Changes in Climate Variables

Temperature (°F)

	Scenario	2009	2039	2069	2099	
Annual	CCSM45	67.3	68.6	69.9	70.7	
Average	CCSM85	67.3	69.2	71.2	73.7	
	GFDL45	67.3	71.8	71.7	73.5	
	GFDL85	67.3	70.1	73.4	77.2	
	HAD45	67.3	69.3	71.8	72.5	
	HAD85	67.3	70.1	73.0	76.1	
Growing	CCSM45	79.6	80.6	81.9	82.7	
Season	CCSM85	79.6	81.5	83.5	86.2	
May—Sep	GFDL45	79.6	85.2	85.0	87.6	
	GFDL85	79.6	83.4	87.1	91.8	
	HAD45	79.6	81.7	83.7	84.2	
	HAD85	79.6	82.3	85.5	88.3	
Coldest	CCSM45	48.3	50.7	51.2	51.7	
Month	CCSM85	48.3	50.3	51.3	52.5	
Average	GFDL45	48.3	51.8	51.7	51.8	
	GFDL85	48.3	49.3	50.3	50.7	
	HAD45	48.3	49.2	50.4	50.8	
	HAD85	48.3	51.6	52.9	54.4	
Warmest	CCSM45	83.4	84.5	85.4	85.5	
Month	CCSM85	83.4	85.4	86.1	87.5	
Average	GFDL45	83.4	88.1	88.8	90.0	
	GFDL85	83.4	88.4	90.0	92.9	
	HAD45	83.4	85.8	86.7	87.1	
	HAD85	83.4	86.5	88.3	89.5	

Precipitation (in)

	Scenario	2009	2039	2069	2099	
Annual	CCSM45	28.1	32.4	31.7	28.0	
Total	CCSM85	28.1	29.1	30.9	30.8	
	GFDL45	28.1	25.5	30.1	23.2	
	GFDL85	28.1	25.3	26.3	24.5	
	HAD45	28.1	29.4	27.7	31.1	
	HAD85	28.1	27.6	27.1	29.7	
Growing	CCSM45	14.5	17.7	16.3	15.0	
Season	CCSM85	14.5	16.0	15.6	16.1	
May—Sep	GFDL45	14.5	12.8	15.7	11.8	
	GFDL85	14.5	13.0	13.6	12.3	
	HAD45	14.5	14.1	14.2	16.4	
	HAD85	14.5	14.0	13.3	14.8	

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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One x One Degree
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
ashe juniper	Juniperus ashei	NDH	High	61.9	3034.5	50.6	No change	No change	Medium	Abundant	Good	Good			0	1
live oak	Quercus virginiana	NDH	High	55.9	1211.9	24.0	Sm. inc.	Sm. inc.	Medium	Abundant	Very Good	Very Good			1	2
post oak	Quercus stellata	WDH	High	1.5	110.8	44.2	Sm. dec.	Sm. dec.	High	Common	Fair	Fair	Infill +	Infill +	2	3
cedar elm	Ulmus crassifolia	NDH	Medium	9.8	92.9	11.8	No change	Sm. inc.	Low	Common	Poor	Fair	Infill +	Infill +	1	4
sugarberry	Celtis laevigata	NDH	Medium	14.9	70.0	4.2	Sm. dec.	Sm. dec.	Medium	Common	Poor	Poor			0	5
bald cypress	Taxodium distichum	NSH	Medium	1.9	66.2	35.6	Lg. dec.	Lg. dec.	Medium	Common	Poor	Poor			0	6
black cherry	Prunus serotina	WDL	Medium	11.6	50.0	4.8	Lg. dec.	Lg. dec.	Low	Common	Very Poor	Very Poor			0	7
pecan	Carya illinoinensis	NSH	Low	3	48.8	8.2	No change	No change	Low	Rare	Very Poor	Very Poor			0	8
sycamore	Platanus occidentalis	NSL	Low	1.9	27.2	14.6	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			2	9
hackberry	Celtis occidentalis	WDH	Medium	5	27.0	7.3	No change	No change	High	Rare	Fair	Fair	Infill +	Infill +	1	10
black walnut	Juglans nigra	WDH	Low	3.8	20.5	4.3	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	1	11
red mulberry	Morus rubra	NSL	Low	0.9	12.7	13.6	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost			0	12
cittamwood/gum bumelia	Sideroxylon lanuginosum ssp.	NSL	Low	1.9	7.4	1.7	Lg. inc.	Lg. inc.	High	Rare	Good	Good	Infill ++	Infill ++	1	13
blackjack oak	Quercus marilandica	NSL	Medium	3.3	7.3	3.3	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor			0	14
black hickory	Carya texana	NDL	High	0.9	6.5	7.0	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	15
Texas ash	Fraxinus texensis	NDH	FIA	0.9	4.3	4.6	Unknown	Unknown	NA	Rare	FIA Only	FIA Only			0	16
durand oak	Quercus sinuata var. sinuata	NSL	FIA	0.9	0.6	0.7	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	17
shellbark hickory	Carya laciniosa	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	18
shagbark hickory	Carya ovata	WSL	Medium	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	19
eastern redbud	Cercis canadensis	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	20
blue ash	Fraxinus quadrangulata	NSL	Low	0	0	0	Unknown	Unknown	Low	Absent	Unknown	Unknown			0	21
southern red oak	Quercus falcata	WDL	Medium	0	0	0	Unknown	Unknown	High	Modeled	Unknown	Unknown			0	22
American mountain-ash	Sorbus americana	NSL	Low	0	0	0	Unknown	Unknown	Low	Absent	Unknown	Unknown			0	23