S33 E99

	sq. km	sq. mi	FIA Plots
Area of Region	10,306	3,979.1	33

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														
Maple	0		Abundant	0	High	3	4	Increase	1	1	Very Good	0	0	Likely	2	2
Oak	1		Common	4	Medium	7	8	No Change	3	2	Good	1	0	Infill	4	4
Pine	0		Rare	5	Low	5	3	Decrease	5	6	Fair	3	4	Migrate	0	0
Other	8		Absent	4	FIA	0		New	2	2	Poor	3	3		6	6
	9			13		15	15	Unknown	4	4	Very Poor	2	2			
									15	15	FIA Only	0	0			
											Unknown	4	4			
												13	13			

Potential Changes in Climate Variables

Temperature (°F)

	Scenario	2009	2039	2069	2099	
Annual	CCSM45	63.5	65.0	66.6	67.4	
Average	CCSM85	63.5	65.6	67.4	70.2	
	GFDL45	63.5	68.5	68.1	69.8	
	GFDL85	63.5	66.6	69.7	73.9	
	HAD45	63.5	65.7	68.2	69.1	
	HAD85	63.5	66.2	70.3	73.2	
Growing	CCSM45	79.0	80.3	82.1	82.9	
Season	CCSM85	79.0	81.2	82.9	86.4	
May—Sep	GFDL45	79.0	85.6	84.6	87.5	
	GFDL85	79.0	83.4	87.0	92.5	
	HAD45	79.0	80.9	83.0	83.6	
	HAD85	79.0	81.6	85.8	88.3	
Coldest	CCSM45	40.8	43.1	43.7	44.6	
Month	CCSM85	40.8	43.0	43.7	45.3	
Average	GFDL45	40.8	44.0	44.0	44.2	
	GFDL85	40.8	41.7	42.9	43.3	
	HAD45	40.8	41.5	43.7	43.8	
	HAD85	40.8	44.3	46.0	47.6	
Warmest	CCSM45	85.0	86.5	87.8	88.0	
Month	CCSM85	85.0	87.3	88.0	90.0	
Average	GFDL45	85.0	90.5	90.9	93.1	
	GFDL85	85.0	91.0	92.8	97.4	
	HAD45	85.0	86.9	88.1	88.3	
	HAD85	85.0	88.0	90.0	91.1	

Precipitation (in)

	Scenario	2009	2039	2069	2099	
Annual	CCSM45	26.3	27.9	26.4	26.1	
Total	CCSM85	26.3	26.0	28.2	26.9	
	GFDL45	26.3	26.7	31.1	25.4	
	GFDL85	26.3	26.4	28.2	25.8	
	HAD45	26.3	28.5	27.0	28.1	
	HAD85	26.3	27.1	24.3	27.4	
Growing	CCSM45	14.1	14.9	13.3	13.5	
Season	CCSM85	14.1	14.3	14.1	13.0	
May—Sep	GFDL45	14.1	14.4	16.8	13.6	
	GFDL85	14.1	14.8	15.1	13.6	
	HAD45	14.1	15.0	14.7	15.0	
	HAD85	14.1	13.8	12.0	14.0	

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.

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	9	256.4	30.5	No change	No change	Medium	Common	Fair	Fair			0	1
cittamwood/gum bumelia	Sideroxylon lanuginosum ssp.	NSL	Low	31.2	141.3	10.3	No change	Sm. dec.	High	Common	Good	Fair			1	2
American elm	Ulmus americana	WDH	Medium	14.8	80.2	24.9	Sm. dec.	Sm. dec.	Medium	Common	Poor	Poor	Infill +	Infill +	0	3
sugarberry	Celtis laevigata	NDH	Medium	18.5	55.9	18.4	Lg. dec.	Lg. dec.	Medium	Common	Poor	Poor			0	4
hackberry	Celtis occidentalis	WDH	Medium	11.4	21.2	12.2	Lg. dec.	Lg. dec.	High	Rare	Poor	Poor	Infill +	Infill +	1	5
post oak	Quercus stellata	WDH	High	0.1	15.3	1.3	No change	No change	High	Rare	Fair	Fair	Infill +	Infill +	2	6
cedar elm	Ulmus crassifolia	NDH	Medium	2.6	13.0	9.8	Lg. inc.	Lg. inc.	Low	Rare	Fair	Fair	Infill +	Infill +	2	7
eastern redcedar	Juniperus virginiana	WDH	Medium	3.7	12.1	47.3	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	8
black willow	Salix nigra	NSH	Low	1.6	3.5	6.1	Sm. dec.	Sm. dec.	Low	Rare	Very Poor	Very Poor			0	9
jack pine	Pinus banksiana	NSH	Medium	0	0	0	Unknown	Unknown	High	Absent	Unknown	Unknown			0	10
serviceberry	Amelanchier spp.	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	11
pecan	Carya illinoinensis	NSH	Low	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat	Likely +	Likely +	3	12
shagbark hickory	Carya ovata	WSL	Medium	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0	13
eastern redbud	Cercis canadensis	NSL	Low	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0	14
live oak	Quercus virginiana	NDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Likely +	Likely +	3	15