

Current and Potential Future Habitat, Capability, and Migration

	sq. km	sq. mi	FIA Plots
Area of Region	41,525	16,033	241

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	2			High	10	15	Increase	10	10	Very Good	0	1	Likely	0	0
Hickory	0			Medium	27	38	No Change	7	6	Good	6	4	Infill	13	13
Maple	1	Abundant	1	Low	26	10	Decrease	4	5	Fair	7	8	Migrate	3	6
Oak	3	Common	3	FIA	1		New	20	21	Poor	6	5		16	19
Pine	3	Rare	18				Unknown	23	22	Very Poor	1	1			
Other	13	Absent	34							FIA Only	1	1			
	22		56		64	63		64	64	Unknown	22	21			
											43	41			

Potential Changes in Climate Variables

Temperature (°F)

	Scenario	2009	2039	2069	2099	
Annual Average	CCSM45	66.6	67.6	68.6	68.6	
	CCSM85	66.6	67.6	69.2	70.9	
	GFDL45	66.6	69.3	69.7	70.5	
	GFDL85	66.6	68.3	70.5	73.0	
	HAD45	66.6	67.7	69.2	70.1	
HAD85	66.6	68.1	69.8	72.3		
Growing Season (May—Sep)	CCSM45	72.0	72.8	73.7	73.8	
	CCSM85	72.0	72.8	74.5	76.3	
	GFDL45	72.0	74.7	75.1	75.9	
	GFDL85	72.0	73.7	75.9	78.5	
	HAD45	72.0	73.3	74.5	75.4	
HAD85	72.0	73.6	75.5	77.7		
Coldest Month (Average)	CCSM45	57.5	58.8	59.5	59.4	
	CCSM85	57.5	58.4	59.1	60.3	
	GFDL45	57.5	59.4	59.7	60.1	
	GFDL85	57.5	59.3	60.2	61.2	
	HAD45	57.5	57.9	58.8	59.1	
HAD85	57.5	58.3	58.9	60.3		
Warmest Month (Average)	CCSM45	73.4	74.3	74.8	74.8	
	CCSM85	73.4	74.4	75.3	76.3	
	GFDL45	73.4	75.1	75.9	76.4	
	GFDL85	73.4	75.2	76.5	77.9	
	HAD45	73.4	74.8	75.4	75.8	
HAD85	73.4	74.9	75.9	77.0		

Precipitation (in)

	Scenario	2009	2039	2069	2099	
Annual Total	CCSM45	43.3	43.7	42.5	46.4	
	CCSM85	43.3	44.4	42.6	39.0	
	GFDL45	43.3	48.7	49.1	49.8	
	GFDL85	43.3	46.3	51.8	46.1	
	HAD45	43.3	45.5	45.5	44.2	
HAD85	43.3	41.1	42.8	40.3		
Growing Season (May—Sep)	CCSM45	29.6	30.0	28.8	31.5	
	CCSM85	29.6	30.5	29.5	25.8	
	GFDL45	29.6	31.8	31.2	29.6	
	GFDL85	29.6	30.6	31.9	27.6	
	HAD45	29.6	30.2	30.1	26.9	
HAD85	29.6	27.4	26.5	24.2		

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-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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HUC 030902 Southern Florida

HUC 6 Watershed Climate Change Atlas Tree Species

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Common Name	Scientific Name	Range	MR	%Cell	FIAsum	FIAiv	ChngCl45	ChngCl85	Adap	Abund	Capabil45	Capabil85	SHIFT45	SHIFT85	SSO	N
slash pine	<i>Pinus elliottii</i>	NDH	High	40.4	652.8	40.3	No change	Sm. dec.	Medium	Abundant	Good	Fair	Infill ++	Infill +	1	1
cabbage palmetto	<i>Sabal palmetto</i>	NDH	Medium	34.4	347.4	22.9	No change	No change	Medium	Common	Fair	Fair			0	2
pond cypress	<i>Taxodium ascendens</i>	NSH	Medium	24.5	344.9	36.6	Sm. inc.	Sm. inc.	Medium	Common	Good	Good	Infill ++	Infill ++	1	3
live oak	<i>Quercus virginiana</i>	NDH	High	21	116.3	12.2	Sm. inc.	Lg. inc.	Medium	Common	Good	Very Good	Infill ++	Infill ++	1	4
bald cypress	<i>Taxodium distichum</i>	NSH	Medium	11.1	49.8	11.5	Sm. inc.	Sm. inc.	Medium	Rare	Fair	Fair	Infill +	Infill +	1	5
laurel oak	<i>Quercus laurifolia</i>	NDH	Medium	20.1	39.9	4.1	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	1	6
red maple	<i>Acer rubrum</i>	WDH	High	9.3	33.8	8.4	No change	No change	High	Rare	Fair	Fair	Infill +	Infill +	1	7
redbay	<i>Persea borbonia</i>	NSL	Low	17.5	21.2	5.5	Sm. inc.	Sm. inc.	High	Rare	Good	Good	Infill ++	Infill ++	1	8
Carolina ash	<i>Fraxinus caroliniana</i>	NSL	FIA	3.8	12.4	7.4	Unknown	Unknown	NA	Rare	FIA Only	FIA Only			0	9
sweetbay	<i>Magnolia virginiana</i>	NSL	Medium	4.7	10.6	3.2	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	2	10
longleaf pine	<i>Pinus palustris</i>	NSH	Medium	0.3	7.0	5.2	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	2	11
loblolly-bay	<i>Gordonia lasianthus</i>	NSH	Medium	1.1	5.9	14.1	Sm. inc.	Sm. inc.	Medium	Rare	Fair	Fair	Infill +	Infill +	2	12
green ash	<i>Fraxinus pennsylvanica</i>	WSH	Low	0.6	2.2	4.5	Sm. inc.	Sm. inc.	Medium	Rare	Fair	Fair	Infill +	Infill +	2	13
swamp tupelo	<i>Nyssa biflora</i>	NDH	Medium	0.8	0.8	2.1	No change	No change	Low	Rare	Very Poor	Very Poor			2	14
hackberry	<i>Celtis occidentalis</i>	WDH	Medium	0.3	0.7	2.7	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor		Infill +	2	15
red mulberry	<i>Morus rubra</i>	NSL	Low	0.3	0.6	2.6	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost			0	16
common persimmon	<i>Diospyros virginiana</i>	NSL	Low	1.6	0.4	1.1	Lg. dec.	Very Lg. dec.	High	Rare	Poor	Lost			0	17
water oak	<i>Quercus nigra</i>	WDH	High	0.4	0.3	0.3	Sm. inc.	Sm. inc.	Medium	Rare	Fair	Fair	Infill +	Infill +	2	18
sugarberry	<i>Celtis laevigata</i>	NDH	Medium	2.5	0.2	1.2	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	19
American elm	<i>Ulmus americana</i>	WDH	Medium	0.5	0.1	0.7	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	20
sand pine	<i>Pinus clausa</i>	NDH	High	0.2	0.1	0.1	Lg. inc.	Lg. inc.	Low	Rare	Fair	Fair	Infill +		2	21
eastern hophornbeam; ironw	<i>Ostrya virginiana</i>	WSL	Low	0.5	0.0	0.2	Sm. dec.	Lg. dec.	High	Rare	Poor	Poor			0	22
ashe juniper	<i>Juniperus ashei</i>	NDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			0	23
eastern redcedar	<i>Juniperus virginiana</i>	WDH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	24
pond pine	<i>Pinus serotina</i>	NSH	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	25
loblolly pine	<i>Pinus taeda</i>	WDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate ++	3	26
boxelder	<i>Acer negundo</i>	WSH	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat			0	27
striped maple	<i>Acer pensylvanicum</i>	NSL	Medium	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	28
mountain maple	<i>Acer spicatum</i>	NSL	Low	0	0	0	Unknown	Unknown	High	Absent	Unknown	Unknown			0	29
serviceberry	<i>Amelanchier spp.</i>	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	30
pawpaw	<i>Asimina triloba</i>	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	31
river birch	<i>Betula nigra</i>	NSL	Low	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0	32
cittamwood/gum bumelia	<i>Sideroxylon lanuginosum ssp.</i>	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat			0	33
pecan	<i>Carya illinoensis</i>	NSH	Low	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat			3	34
eastern redbud	<i>Cercis canadensis</i>	NSL	Low	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0	35
flowering dogwood	<i>Cornus florida</i>	WDL	Medium	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	36
American beech	<i>Fagus grandifolia</i>	WDH	High	0	0	0	New Habitat	Unknown	Medium	Absent	New Habitat	Unknown			3	37
silverbell	<i>Halesia spp.</i>	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	38
American holly	<i>Ilex opaca</i>	NSL	Medium	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0	39
sweetgum	<i>Liquidambar styraciflua</i>	WDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +	3	40
cucumbertree	<i>Magnolia acuminata</i>	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	41
bigleaf magnolia	<i>Magnolia macrophylla</i>	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	42
mountain or Fraser magnolia	<i>Magnolia fraseri</i>	NSL	Low	0	0	0	Unknown	Unknown	Low	Absent	Unknown	Unknown			0	43
water tupelo	<i>Nyssa aquatica</i>	NSH	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat			3	44
blackgum	<i>Nyssa sylvatica</i>	WDL	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	45
water elm	<i>Planera aquatica</i>	NSL	Low	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0	46
pin cherry	<i>Prunus pensylvanica</i>	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	47



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Common Name	Scientific Name	Range	MR	%Cell	FIAsum	FIAiv	ChngCl45	ChngCl85	Adap	Abund	Capabil45	Capabil85	SHIFT45	SHIFT85	SSO	N
white oak	Quercus alba	WDH	Medium	0	0	0	Unknown	Unknown	High	Modeled	Unknown	Unknown			0	48
cherrybark oak; swamp red o	Quercus pagoda	NSL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			0	49
turkey oak	Quercus laevis	NSH	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat			3	50
overcup oak	Quercus lyrata	NSL	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat			3	51
bur oak	Quercus macrocarpa	NDH	Medium	0	0	0	Unknown	New Habitat	High	Absent	Unknown	New Habitat			0	52
swamp chestnut oak	Quercus michauxii	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	53
Nuttall oak	Quercus texana	NSH	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat			0	54
willow oak	Quercus phellos	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	55
Shumard oak	Quercus shumardii	NSL	Low	0	0	0	Unknown	Unknown	High	Modeled	Unknown	Unknown			0	56
post oak	Quercus stellata	WDH	High	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat		Migrate +	3	57
black locust	Robinia pseudoacacia	NDH	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	58
black willow	Salix nigra	NSH	Low	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat	Migrate +	Migrate ++	3	59
sassafras	Sassafras albidum	WSL	Low	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0	60
American mountain-ash	Sorbus americana	NSL	Low	0	0	0	Unknown	New Habitat	Low	Absent	Unknown	New Habitat			0	61
American basswood	Tilia americana	WSL	Medium	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	62
winged elm	Ulmus alata	WDL	Medium	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0	63
cedar elm	Ulmus crassifolia	NDH	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat			0	64