

Climate Change Atlas Tree Species  
Current and Potential Future Habitat, Capability, and Migration

Area of Region    sq. km    sq. mi    FIA Plots  
117,294    45,287    2,980

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	Scenario	Scenario	Scenario	SHIFT	SHIFT				
				High	30	RCP45	RCP85	RCP45	RCP85	RCP45	RCP85				
Ash	3					Increase	26	32	Very Good	9	10	Likely	1	1	
Hickory	4			Medium	42	67	No Change	17	15	Good	19	21	Infill	14	17
Maple	8	Abundant	5	Low	46	24	Decrease	35	31	Fair	8	11	Migrate	13	12
Oak	15	Common	21	FIA	13		New	29	30	Poor	20	15		28	30
Pine	8	Rare	65				Unknown	21	20	Very Poor	22	19			
Other	53	Absent	36							FIA Only	7	7			
	91		127		128	121		128	128	Unknown	8	7			
											93	90			

Potential Changes in Climate Variables

Temperature (°F)

Scenario	2009	2039	2069	2099		
Annual	CCSM45	48.7	50.6	53.0	53.2	
Average	CCSM85	48.7	51.0	53.6	56.8	
	GFDL45	48.7	52.1	54.7	55.8	
	GFDL85	48.7	52.2	55.9	60.2	
	HAD45	48.7	51.6	55.0	56.6	
	HAD85	48.7	51.7	56.0	61.1	
Growing Season	CCSM45	65.0	66.9	69.0	69.5	
	CCSM85	65.0	67.3	69.9	73.8	
May—Sep	GFDL45	65.0	68.7	72.1	73.7	
	GFDL85	65.0	69.4	73.6	78.3	
	HAD45	65.0	68.3	71.3	73.5	
	HAD85	65.0	67.9	73.1	78.7	
Coldest Month	CCSM45	23.8	25.7	27.5	27.9	
	CCSM85	23.8	26.4	27.7	29.5	
Average	GFDL45	23.8	26.9	28.0	28.7	
	GFDL85	23.8	27.1	28.4	30.2	
	HAD45	23.8	25.3	28.0	28.2	
	HAD85	23.8	26.3	28.4	31.0	
Warmest Month	CCSM45	70.8	73.0	74.2	74.5	
	CCSM85	70.8	73.4	75.1	77.3	
Average	GFDL45	70.8	73.9	76.2	77.5	
	GFDL85	70.8	75.4	77.9	80.9	
	HAD45	70.8	74.5	76.4	77.9	
	HAD85	70.8	74.8	78.1	82.0	

Precipitation (in)

Scenario	2009	2039	2069	2099		
Annual	CCSM45	43.3	45.2	45.3	48.1	
Total	CCSM85	43.3	45.4	47.2	49.8	
	GFDL45	43.3	48.0	50.1	49.8	
	GFDL85	43.3	45.1	50.0	51.5	
	HAD45	43.3	45.1	45.8	45.4	
	HAD85	43.3	46.9	44.0	47.2	
Growing Season	CCSM45	20.4	21.8	21.7	22.8	
	CCSM85	20.4	21.2	22.1	22.4	
May—Sep	GFDL45	20.4	21.6	21.6	21.7	
	GFDL85	20.4	20.0	21.3	21.3	
	HAD45	20.4	21.2	19.4	19.7	
	HAD85	20.4	21.1	18.5	19.3	

**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.

**Cite as:** Iverson, L.R.; Prasad, A.M.; Peters, M.P.; Matthews, S.N. 2019. Facilitating Adaptive Forest Management under Climate Change: A Spatially Specific Synthesis of 125 Species for Habitat Changes and Assisted Migration over the Eastern United States. *Forests*. 10(11): 989. <https://doi.org/10.3390/f10110989>.

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
red maple	Acer rubrum	WDH	High	86.6	1664.6	19.3	Sm. dec.	Lg. dec.	High	Abundant	Good	Good			1	1
black cherry	Prunus serotina	WDL	Medium	70.7	914.0	13.4	Sm. dec.	Sm. dec.	Low	Abundant	Fair	Fair			0	2
sugar maple	Acer saccharum	WDH	High	46	624.7	12.4	No change	No change	High	Abundant	Very Good	Very Good			1	3
northern red oak	Quercus rubra	WDH	Medium	62.9	531.9	8.8	No change	No change	High	Abundant	Very Good	Very Good			1	4
chestnut oak	Quercus prinus	NDH	High	42.8	504.1	12.8	Sm. inc.	No change	High	Abundant	Very Good	Very Good			1	5
sweet birch	Betula lenta	NDH	High	57.5	433.1	7.9	Sm. dec.	Lg. dec.	Low	Common	Poor	Very Poor			0	6
white ash	Fraxinus americana	WDL	Medium	57.4	403.0	7.4	No change	No change	Low	Common	Poor	Poor			0	7
eastern hemlock	Tsuga canadensis	NSH	High	35.4	370.1	10.3	Lg. dec.	Lg. dec.	Low	Common	Very Poor	Very Poor			0	8
white oak	Quercus alba	WDH	Medium	41.1	319.8	8.1	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	9
American beech	Fagus grandifolia	WDH	High	37.7	285.5	7.7	No change	No change	Medium	Common	Fair	Fair			1	10
eastern white pine	Pinus strobus	WDH	High	28.3	216.0	7.5	No change	Sm. dec.	Low	Common	Poor	Poor			0	11
yellow-poplar	Liriodendron tulipifera	WDH	High	29.9	186.0	8.2	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	12
black locust	Robinia pseudoacacia	NDH	Low	22.4	164.0	7.8	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	13
black oak	Quercus velutina	WDH	High	34.6	157.0	5.3	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	14
blackgum	Nyssa sylvatica	WDL	Medium	33.6	124.2	4.1	Sm. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	15
sassafras	Sassafras albidum	WSL	Low	34.1	115.8	4.0	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	16
scarlet oak	Quercus coccinea	WDL	Medium	21.5	101.2	4.7	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	17
black walnut	Juglans nigra	WDH	Low	17.4	98.6	7.5	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	18
quaking aspen	Populus tremuloides	WDH	High	11.9	95.6	7.2	Lg. dec.	Lg. dec.	Medium	Common	Poor	Poor			0	19
American elm	Ulmus americana	WDH	Medium	19.4	95.2	4.9	No change	Sm. inc.	Medium	Common	Fair	Good			1	20
bigtooth aspen	Populus grandidentata	NSL	Medium	17.5	94.4	5.4	Lg. dec.	Lg. dec.	Medium	Common	Poor	Poor			0	21
yellow birch	Betula alleghaniensis	NDL	High	21.3	91.5	4.1	Lg. dec.	Lg. dec.	Medium	Common	Poor	Poor			0	22
pignut hickory	Carya glabra	WDL	Medium	23.5	76.5	3.5	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	23
American basswood	Tilia americana	WSL	Medium	18.5	69.0	3.8	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	24
shagbark hickory	Carya ovata	WSL	Medium	18.7	64.2	3.6	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	25
eastern hophornbeam; ironw	Ostrya virginiana	WSL	Low	22.7	53.4	2.3	No change	Sm. inc.	High	Common	Good	Very Good			1	26
Scots pine	Pinus sylvestris	NSH	FIA	5.3	47.7	8.9	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	27
Virginia pine	Pinus virginiana	NDH	High	5.4	46.4	9.7	No change	Sm. inc.	Medium	Rare	Poor	Fair	Infill +	Infill +	1	28
serviceberry	Amelanchier spp.	NSL	Low	24.6	44.0	1.8	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	29
bitternut hickory	Carya cordiformis	WSL	Low	11.9	41.4	3.9	Sm. inc.	Lg. inc.	High	Rare	Good	Good	Infill ++	Infill ++	1	30
mockernut hickory	Carya alba	WDL	Medium	12.8	37.9	3.9	Lg. inc.	Lg. inc.	High	Rare	Good	Good			1	31
Norway spruce	Picea abies	NSH	FIA	3.8	35.0	8.5	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	32
pin cherry	Prunus pensylvanica	NSL	Low	8.5	34.4	4.2	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	33
red pine	Pinus resinosa	NSH	Medium	4.5	32.8	8.0	Lg. dec.	Very Lg. dec.	Low	Rare	Very Poor	Lost			0	34
pitch pine	Pinus rigida	NSH	High	6.6	32.5	4.8	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	35
slippery elm	Ulmus rubra	WSL	Low	8.7	32.1	3.9	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	1	36
American hornbeam; muscle	Carpinus caroliniana	WSL	Low	11.6	31.0	2.5	Sm. dec.	Sm. inc.	Medium	Rare	Very Poor	Fair			1	37
cucumbertree	Magnolia acuminata	NSL	Low	10.8	27.5	2.4	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	38
black willow	Salix nigra	NSH	Low	1.3	25.1	13.4	Sm. dec.	No change	Low	Rare	Very Poor	Very Poor			2	39
ailanthus	Ailanthus altissima	NSL	FIA	7.7	25.1	5.2	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	40
boxelder	Acer negundo	WSH	Low	7.8	23.8	5.6	No change	No change	High	Rare	Fair	Fair	Infill +	Infill +	1	41
sycamore	Platanus occidentalis	NSL	Low	3.3	22.0	5.8	Sm. inc.	Lg. inc.	Medium	Rare	Fair	Good	Infill +	Infill ++	2	42
green ash	Fraxinus pennsylvanica	WSH	Low	3.1	20.1	7.7	No change	Sm. inc.	Medium	Rare	Poor	Fair	Infill +	Infill +	2	43
silver maple	Acer saccharinum	NSH	Low	2.6	18.4	8.3	No change	No change	High	Rare	Fair	Fair	Infill +	Infill +	2	44
eastern redcedar	Juniperus virginiana	WDH	Medium	3.5	16.4	5.9	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	2	45
pin oak	Quercus palustris	NSH	Low	3.9	16.1	6.1	No change	No change	Low	Rare	Very Poor	Very Poor			2	46
hackberry	Celtis occidentalis	WDH	Medium	4.3	15.9	5.2	No change	No change	High	Rare	Fair	Fair	Infill +	Infill +	2	47

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
paper birch	Betula papyrifera	WDH	High	3.1	15.6	4.4	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	48
Norway maple	Acer platanoides	NSL	FIA	4.9	15.1	6.9	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	49
white spruce	Picea glauca	NSL	Medium	1.4	12.9	10.8	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	50
shingle oak	Quercus imbricaria	NDH	Medium	1.5	11.8	6.4	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			2	51
swamp white oak	Quercus bicolor	NSL	Low	1.7	10.6	7.9	Sm. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			2	52
gray birch	Betula populifolia	NSL	Low	3.2	9.7	3.1	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	53
sweetgum	Liquidambar styraciflua	WDH	High	0.4	9.0	8.8	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	54
butternut	Juglans cinerea	NSLX	FIA	1.7	7.8	5.5	Unknown	Unknown	Low	Rare	FIA Only	FIA Only			0	55
black ash	Fraxinus nigra	WSH	Medium	0.4	7.6	9.7	Lg. dec.	Lg. dec.	Low	Rare	Very Poor	Very Poor			0	56
eastern cottonwood	Populus deltoides	NSH	Low	0.7	7.4	7.9	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	2	57
bear oak; scrub oak	Quercus ilicifolia	NSLX	FIA	1.6	7.3	4.8	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	58
flowering dogwood	Cornus florida	WDL	Medium	7.2	6.3	1.1	Sm. inc.	Sm. inc.	Medium	Rare	Fair	Fair	Infill +	Infill +	1	59
Osage-orange	Maclura pomifera	NDH	Medium	1.8	5.8	9.1	Sm. dec.	No change	High	Rare	Poor	Fair	Infill +	Infill +	2	60
red spruce	Picea rubens	NDH	High	1.2	5.6	4.7	Lg. dec.	Lg. dec.	Low	Rare	Very Poor	Very Poor			0	61
chokecherry	Prunus virginiana	NSLX	FIA	1.3	5.2	3.8	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	62
black maple	Acer nigrum	NSH	Low	0.6	4.9	8.2	Lg. dec.	Lg. dec.	High	Rare	Poor	Poor			0	63
loblolly pine	Pinus taeda	WDH	High	0.2	3.3	5.7	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	64
eastern redbud	Cercis canadensis	NSL	Low	1.6	2.1	1.9	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			0	65
jack pine	Pinus banksiana	NSH	Medium	0.2	1.9	11.1	Lg. dec.	Lg. dec.	High	Rare	Poor	Poor			0	66
tamarack (native)	Larix laricina	NSH	High	0.6	1.8	5.7	Lg. dec.	Lg. dec.	Low	Rare	Very Poor	Very Poor			0	67
honeylocust	Gleditsia triacanthos	NSH	Low	0.3	1.5	5.9	Sm. dec.	Lg. inc.	High	Rare	Poor	Good			2	68
red mulberry	Morus rubra	NSL	Low	1.2	1.5	8.0	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	2	69
paulownia	Paulownia tomentosa	NSL	FIA	0.8	1.4	14.5	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	70
Table Mountain pine	Pinus pungens	NSL	Low	0.5	1.3	2.6	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor		Infill +	2	71
common persimmon	Diospyros virginiana	NSL	Low	0	1.2	4.0	Lg. inc.	Lg. inc.	High	Rare	Good	Good			2	72
river birch	Betula nigra	NSL	Low	0.2	0.9	1.1	Sm. dec.	Sm. inc.	Medium	Rare	Very Poor	Fair		Infill +	2	73
American chestnut	Castanea dentata	NSLX	FIA	1.9	0.8	0.5	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	74
balsam poplar	Populus balsamifera	NSH	Medium	0.2	0.6	3.3	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	75
bur oak	Quercus macrocarpa	NDH	Medium	0.1	0.4	4.7	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor		Infill +	2	76
yellow buckeye	Aesculus flava	NSL	Low	0.1	0.4	3.8	Lg. dec.	Lg. dec.	Low	Rare	Very Poor	Very Poor			0	77
white mulberry	Morus alba	NSL	FIA	0.5	0.3	1.5	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	78
swamp chestnut oak	Quercus michauxii	NSL	Low	0.5	0.3	0.8	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	2	79
chinkapin oak	Quercus muehlenbergii	NSL	Medium	0	0.2	0.2	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	80
Kentucky coffeetree	Gymnocladus dioicus	NSLX	FIA	0.1	0.2	2.1	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	81
northern catalpa	Catalpa speciosa	NSHX	FIA	0.3	0.1	5.9	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	82
pawpaw	Asimina triloba	NSL	Low	0.4	0.1	1.0	Lg. dec.	Very Lg. dec.	Medium	Rare	Very Poor	Lost			0	83
American holly	Ilex opaca	NSL	Medium	0.1	0.1	0.5	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	84
striped maple	Acer pensylvanicum	NSL	Medium	2.7	0.1	4.1	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	85
rock elm	Ulmus thomasii	NSLX	FIA	0.3	0.1	4.0	Unknown	Unknown	Low	Rare	FIA Only	FIA Only			0	86
sourwood	Oxydendrum arboreum	NDL	High	0	0.1	0.3	Lg. inc.	Lg. inc.	High	Rare	Good	Good			2	87
southern red oak	Quercus falcata	WDL	Medium	0	0.1	0.3	Lg. inc.	Lg. inc.	High	Rare	Good	Good			2	88
northern pin oak	Quercus ellipsoidalis	NSH	Medium	0.3	0.0	2.0	Lg. dec.	Lg. dec.	High	Rare	Poor	Poor			0	89
laurel oak	Quercus laurifolia	NDH	Medium	0.1	0.0	0.2	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	90
mountain maple	Acer spicatum	NSL	Low	0.1	0.0	0.2	Lg. dec.	Sm. dec.	High	Rare	Poor	Poor			0	91
balsam fir	Abies balsamea	NDH	High	0	0	0	Unknown	Unknown	Low	Modeled	Unknown	Unknown			0	92
Atlantic white-cedar	Chamaecyparis thyoides	NSH	Low	0	0	0	Unknown	Unknown	Low	Absent	Unknown	Unknown			0	93
shortleaf pine	Pinus echinata	WDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate ++	3	94

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
slash pine	<i>Pinus elliottii</i>	NDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	95
longleaf pine	<i>Pinus palustris</i>	NSH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	96
pond pine	<i>Pinus serotina</i>	NSH	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat	Migrate +		3	97
bald cypress	<i>Taxodium distichum</i>	NSH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	98
northern white-cedar	<i>Thuja occidentalis</i>	WSH	High	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	99
florida maple	<i>Acer barbatum</i>	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	100
Ohio buckeye	<i>Aesculus glabra</i>	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	101
cittamwood/gum bumelia	<i>Sideroxylon lanuginosum ssp.</i>	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat			0	102
water hickory	<i>Carya aquatica</i>	NSL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	103
pecan	<i>Carya illinoensis</i>	NSH	Low	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat			3	104
shellbark hickory	<i>Carya laciniosa</i>	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	105
black hickory	<i>Carya texana</i>	NDL	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			0	106
sugarberry	<i>Celtis laevigata</i>	NDH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	107
blue ash	<i>Fraxinus quadrangulata</i>	NSL	Low	0	0	0	Unknown	Unknown	Low	Absent	Unknown	Unknown			0	108
silverbell	<i>Halesia spp.</i>	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	109
southern magnolia	<i>Magnolia grandiflora</i>	NSL	Low	0	0	0	Unknown	New Habitat	Medium	Absent	Unknown	New Habitat			3	110
sweetbay	<i>Magnolia virginiana</i>	NSL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate ++	Migrate ++	3	111
bigleaf magnolia	<i>Magnolia macrophylla</i>	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	112
mountain or Fraser magnolia	<i>Magnolia fraseri</i>	NSL	Low	0	0	0	New Habitat	New Habitat	NA	Absent	New Habitat	New Habitat			0	113
water tupelo	<i>Nyssa aquatica</i>	NSH	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	114
swamp tupelo	<i>Nyssa biflora</i>	NDH	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	115
redbay	<i>Persea borbonia</i>	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate +		3	116
cherrybark oak; swamp red o	<i>Quercus pagoda</i>	NSL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	117
overcup oak	<i>Quercus lyrata</i>	NSL	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat			3	118
blackjack oak	<i>Quercus marilandica</i>	NSL	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate +	Migrate ++	3	119
water oak	<i>Quercus nigra</i>	WDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate ++	3	120
willow oak	<i>Quercus phellos</i>	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Likely +	Likely +	3	121
Shumard oak	<i>Quercus shumardii</i>	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat		Migrate +	3	122
post oak	<i>Quercus stellata</i>	WDH	High	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate ++	Migrate ++	3	123
live oak	<i>Quercus virginiana</i>	NDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			0	124
bluejack oak	<i>Quercus incana</i>	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			0	125
American mountain-ash	<i>Sorbus americana</i>	NSL	Low	0	0	0	Unknown	Unknown	Low	Absent	Unknown	Unknown			0	126
winged elm	<i>Ulmus alata</i>	WDL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate ++	3	127
cedar elm	<i>Ulmus crassifolia</i>	NDH	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat			0	128