

	sq. km	sq. mi	FIA Plots
Area of Region	116,809	45,100	3,277

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	4			High	26	29	Increase	26	32	Very Good	11	10	Likely	0	0
Hickory	5			Medium	37	64	No Change	26	19	Good	21	27	Infill	14	15
Maple	8	Abundant	6	Low	46	23	Decrease	32	33	Fair	12	8	Migrate	4	10
Oak	15	Common	30	FIA	14		New	19	21	Poor	14	14		18	25
Pine	8	Rare	62				Unknown	20	18	Very Poor	26	25			
Other	58	Absent	25					123	123	FIA Only	7	7			
	98		123		123	116				Unknown	6	4			
											97	95			

Potential Changes in Climate Variables

Temperature (°F)

Scenario	2009	2039	2069	2099		
Annual	CCSM45	51.4	53.2	55.6	55.8	
Average	CCSM85	51.4	53.7	56.2	59.4	
	GFDL45	51.4	54.5	57.1	58.1	
	GFDL85	51.4	54.7	58.2	62.3	
	HAD45	51.4	54.1	57.6	59.0	
	HAD85	51.4	54.4	58.8	63.5	
Growing Season	CCSM45	67.0	68.9	71.1	71.7	
	CCSM85	67.0	69.4	72.0	76.0	
May—Sep	GFDL45	67.0	70.6	74.0	75.4	
	GFDL85	67.0	71.2	75.4	80.0	
	HAD45	67.0	70.3	73.6	75.5	
	HAD85	67.0	70.4	76.1	81.1	
Coldest Month	CCSM45	27.2	28.9	30.5	30.9	
	CCSM85	27.2	29.9	31.0	32.6	
Average	GFDL45	27.2	30.6	31.3	32.0	
	GFDL85	27.2	30.1	31.2	32.4	
	HAD45	27.2	28.1	30.6	30.7	
	HAD85	27.2	29.0	30.9	33.0	
Warmest Month	CCSM45	72.5	74.5	75.8	76.2	
	CCSM85	72.5	75.0	76.7	78.7	
Average	GFDL45	72.5	75.8	78.0	79.1	
	GFDL85	72.5	77.1	79.6	82.3	
	HAD45	72.5	76.3	78.7	80.0	
	HAD85	72.5	77.3	81.2	84.5	

Precipitation (in)

Scenario	2009	2039	2069	2099		
Annual	CCSM45	43.0	45.8	46.5	47.7	
Total	CCSM85	43.0	46.2	47.5	51.1	
	GFDL45	43.0	47.2	48.8	50.7	
	GFDL85	43.0	44.6	49.9	51.6	
	HAD45	43.0	44.5	45.0	44.6	
	HAD85	43.0	45.2	42.4	45.2	
Growing Season	CCSM45	20.3	21.8	21.9	22.2	
	CCSM85	20.3	21.3	21.3	22.2	
May—Sep	GFDL45	20.3	22.0	21.7	22.5	
	GFDL85	20.3	20.2	21.4	21.8	
	HAD45	20.3	21.5	19.1	19.9	
	HAD85	20.3	20.8	17.9	18.7	

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	84.3	1118.4	12.6	Sm. dec.	Sm. dec.	High	Abundant	Good	Good			1	1
sugar maple	Acer saccharum	WDH	High	73.5	806.5	10.5	No change	Sm. dec.	High	Abundant	Very Good	Good			1	2
yellow-poplar	Liriodendron tulipifera	WDH	High	61.1	730.6	11.1	No change	Sm. dec.	High	Abundant	Very Good	Good			1	3
white oak	Quercus alba	WDH	Medium	57.4	581.4	9.3	Sm. inc.	Sm. inc.	High	Abundant	Very Good	Very Good			1	4
black cherry	Prunus serotina	WDL	Medium	63.8	543.3	8.8	Sm. dec.	Sm. dec.	Low	Abundant	Fair	Fair			0	5
chestnut oak	Quercus prinus	NDH	High	42.9	503.3	9.7	No change	No change	High	Abundant	Very Good	Very Good			1	6
northern red oak	Quercus rubra	WDH	Medium	62	385.7	5.8	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good			1	7
white ash	Fraxinus americana	WDL	Medium	61.4	325.2	5.3	No change	No change	Low	Common	Poor	Poor			0	8
black locust	Robinia pseudoacacia	NDH	Low	48.1	320.9	6.2	No change	No change	Medium	Common	Fair	Fair			1	9
American beech	Fagus grandifolia	WDH	High	50.5	308.3	6.0	No change	Sm. dec.	Medium	Common	Fair	Poor			1	10
black oak	Quercus velutina	WDH	High	49.3	270.8	5.0	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	11
American elm	Ulmus americana	WDH	Medium	41.7	229.4	5.9	No change	Sm. inc.	Medium	Common	Fair	Good			1	12
pignut hickory	Carya glabra	WDL	Medium	47.4	205.4	3.9	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	13
sassafras	Sassafras albidum	WSL	Low	42.3	166.9	3.7	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	14
scarlet oak	Quercus coccinea	WDL	Medium	29.4	165.0	4.8	Sm. inc.	No change	Medium	Common	Good	Fair			1	15
shagbark hickory	Carya ovata	WSL	Medium	43.2	155.2	3.6	No change	No change	Medium	Common	Fair	Fair			1	16
blackgum	Nyssa sylvatica	WDL	Medium	46.2	152.3	3.0	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good			1	17
Virginia pine	Pinus virginiana	NDH	High	17.8	145.9	7.3	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	18
mockernut hickory	Carya alba	WDL	Medium	36.7	139.7	3.4	Sm. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	19
eastern white pine	Pinus strobus	WDH	High	13.4	135.0	8.4	No change	No change	Low	Common	Poor	Poor			0	20
sweet birch	Betula lenta	NDH	High	24.8	128.8	4.4	Sm. dec.	Sm. dec.	Low	Common	Poor	Poor	Infill +	Infill +	0	21
black walnut	Juglans nigra	WDH	Low	28.7	122.5	4.4	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	22
American basswood	Tilia americana	WSL	Medium	27.4	119.1	4.2	Sm. dec.	Sm. dec.	Medium	Common	Poor	Poor			0	23
sycamore	Platanus occidentalis	NSL	Low	21.3	117.6	5.5	Sm. inc.	Lg. inc.	Medium	Common	Good	Very Good			1	24
slippery elm	Ulmus rubra	WSL	Low	35.7	116.4	3.3	No change	Sm. inc.	Medium	Common	Fair	Good			1	25
eastern hemlock	Tsuga canadensis	NSH	High	15.3	91.1	5.3	No change	No change	Low	Common	Poor	Poor	Infill +	Infill +	0	26
sourwood	Oxydendrum arboreum	NDL	High	22.5	83.2	3.2	Sm. inc.	No change	High	Common	Very Good	Good			1	27
bitternut hickory	Carya cordiformis	WSL	Low	28.1	78.8	3.1	Sm. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	28
bigtooth aspen	Populus grandidentata	NSL	Medium	15.5	74.5	5.1	Lg. dec.	Lg. dec.	Medium	Common	Poor	Poor			0	29
boxelder	Acer negundo	WSH	Low	11.9	68.5	5.2	No change	Lg. inc.	High	Common	Good	Very Good			1	30
silver maple	Acer saccharinum	NSH	Low	6.1	64.4	11.9	No change	No change	High	Common	Good	Good	Infill ++	Infill ++	1	31
yellow buckeye	Aesculus flava	NSL	Low	13.2	62.1	4.4	Lg. dec.	Lg. dec.	Low	Common	Very Poor	Very Poor			0	32
yellow birch	Betula alleghaniensis	NDL	High	8.7	61.3	7.0	Sm. dec.	Sm. dec.	Medium	Common	Poor	Poor	Infill +	Infill +	0	33
ailanthus	Ailanthus altissima	NSL	FIA	13.6	60.2	4.2	Unknown	Unknown	NA	Common	NNIS	NNIS			0	34
green ash	Fraxinus pennsylvanica	WSH	Low	17.5	60.0	4.3	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good	Infill ++	Infill ++	1	35
cucumber tree	Magnolia acuminata	NSL	Low	21	51.9	2.3	No change	No change	Medium	Common	Fair	Fair			1	36
eastern redcedar	Juniperus virginiana	WDH	Medium	4.2	40.0	7.6	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	2	37
pin oak	Quercus palustris	NSH	Low	5.2	38.1	10.0	No change	No change	Low	Rare	Very Poor	Very Poor			2	38
flowering dogwood	Cornus florida	WDL	Medium	25	37.2	1.4	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			1	39
pitch pine	Pinus rigida	NSH	High	8.5	36.6	3.8	No change	No change	Medium	Rare	Poor	Poor			1	40
eastern hophornbeam; ironw	Ostrya virginiana	WSL	Low	23.1	36.0	1.6	No change	Lg. inc.	High	Rare	Fair	Good			1	41
black willow	Salix nigra	NSH	Low	3.2	33.8	12.4	Lg. dec.	No change	Low	Rare	Very Poor	Very Poor			2	42
red spruce	Picea rubens	NDH	High	3.6	32.6	8.8	Sm. dec.	Sm. dec.	Low	Rare	Very Poor	Very Poor			2	43
American hornbeam; muscle	Carpinus caroliniana	WSL	Low	17.1	31.2	1.7	Sm. dec.	Sm. inc.	Medium	Rare	Very Poor	Fair			1	44
eastern redbud	Cercis canadensis	NSL	Low	13.7	27.4	1.7	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			1	45
serviceberry	Amelanchier spp.	NSL	Low	15.1	24.3	1.3	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	46
loblolly pine	Pinus taeda	WDH	High	1.5	22.4	12.5	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			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
hackberry	Celtis occidentalis	WDH	Medium	6.7	19.6	2.8	No change	Sm. inc.	High	Rare	Fair	Good	Infill +	Infill ++	2	48
eastern cottonwood	Populus deltoides	NSH	Low	4.3	19.1	6.8	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			2	49
striped maple	Acer pensylvanicum	NSL	Medium	8.2	15.5	1.5	No change	Sm. dec.	Medium	Rare	Poor	Very Poor	Infill +		1	50
quaking aspen	Populus tremuloides	WDH	High	2.5	15.0	5.2	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	51
pawpaw	Asimina triloba	NSL	Low	6.7	14.7	1.9	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	52
pin cherry	Prunus pensylvanica	NSL	Low	4.2	14.0	2.9	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	53
Osage-orange	Maclura pomifera	NDH	Medium	2.5	13.9	7.9	No change	Sm. inc.	High	Rare	Fair	Good	Infill +	Infill ++	2	54
Norway spruce	Picea abies	NSH	FIA	2.1	13.9	7.1	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	55
swamp white oak	Quercus bicolor	NSL	Low	2.6	12.1	5.3	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			2	56
mountain or Fraser magnolia	Magnolia fraseri	NSL	Low	5.5	11.8	2.1	No change	No change	Low	Rare	Very Poor	Very Poor			0	57
river birch	Betula nigra	NSL	Low	1.2	11.7	9.7	Lg. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			2	58
post oak	Quercus stellata	WDH	High	2.2	10.7	4.3	Lg. inc.	Lg. inc.	High	Rare	Good	Good			2	59
red pine	Pinus resinosa	NSH	Medium	1.9	10.3	6.5	Lg. dec.	Lg. dec.	Low	Rare	Very Poor	Very Poor			0	60
shingle oak	Quercus imbricaria	NDH	Medium	2.8	8.7	3.2	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	2	61
paulownia	Paulownia tomentosa	NSL	FIA	2.5	7.8	2.7	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	62
Table Mountain pine	Pinus pungens	NSL	Low	2	7.2	2.7	No change	No change	High	Rare	Fair	Fair	Infill +	Infill +	2	63
common persimmon	Diospyros virginiana	NSL	Low	3.6	7.1	1.9	Sm. inc.	Lg. inc.	High	Rare	Good	Good	Infill ++	Infill ++	1	64
honeylocust	Gleditsia triacanthos	NSH	Low	2.4	6.8	3.5	No change	Lg. inc.	High	Rare	Fair	Good	Infill +	Infill ++	2	65
chinkapin oak	Quercus muehlenbergii	NSL	Medium	1.7	6.8	3.0	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	66
Scots pine	Pinus sylvestris	NSH	FIA	2.2	6.6	5.6	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	67
black maple	Acer nigrum	NSH	Low	2.9	6.0	2.2	Lg. dec.	Lg. dec.	High	Rare	Poor	Poor			0	68
black ash	Fraxinus nigra	WSH	Medium	1.5	5.6	4.6	Lg. dec.	Lg. dec.	Low	Rare	Very Poor	Very Poor			0	69
Ohio buckeye	Aesculus glabra	NSL	Low	3.1	4.9	2.2	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			2	70
sweetgum	Liquidambar styraciflua	WDH	High	1.4	4.5	5.0	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	71
butternut	Juglans cinerea	NSLX	FIA	2	4.2	1.9	Unknown	Unknown	Low	Rare	FIA Only	FIA Only			0	72
Siberian elm	Ulmus pumila	NDH	FIA	0.1	3.7	43.0	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	73
gray birch	Betula populifolia	NSL	Low	0.1	3.6	42.5	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	74
red mulberry	Morus rubra	NSL	Low	1	3.6	4.7	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	2	75
wild plum	Prunus americana	NSLX	FIA	0.3	3.5	13.6	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	76
bur oak	Quercus macrocarpa	NDH	Medium	1.4	3.0	2.5	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor		Infill +	2	77
shortleaf pine	Pinus echinata	WDH	High	1.3	3.0	1.3	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	78
shellbark hickory	Carya laciniosa	NSL	Low	0.6	1.9	2.6	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	79
bear oak; scrub oak	Quercus ilicifolia	NSLX	FIA	0.7	1.8	2.5	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	80
American chestnut	Castanea dentata	NSLX	FIA	1.9	1.6	0.7	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	81
chokecherry	Prunus virginiana	NSLX	FIA	1.1	1.4	2.3	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	82
white mulberry	Morus alba	NSL	FIA	0.3	1.3	1.3	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	83
balsam fir	Abies balsamea	NDH	High	0.2	0.9	5.2	Lg. dec.	Lg. dec.	Low	Rare	Very Poor	Very Poor			0	84
blue ash	Fraxinus quadrangulata	NSL	Low	0.1	0.7	1.1	Sm. dec.	Sm. dec.	Low	Rare	Very Poor	Very Poor			0	85
southern red oak	Quercus falcata	WDL	Medium	0.3	0.7	1.2	Lg. inc.	Lg. inc.	High	Rare	Good	Good			2	86
northern catalpa	Catalpa speciosa	NSHX	FIA	0.3	0.6	2.5	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	87
Norway maple	Acer platanoides	NSL	FIA	0.5	0.5	2.0	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	88
American holly	Ilex opaca	NSL	Medium	0.4	0.5	1.1	Sm. dec.	No change	Medium	Rare	Very Poor	Poor		Infill +	2	89
American mountain-ash	Sorbus americana	NSL	Low	0.7	0.5	0.7	Lg. dec.	Lg. dec.	Low	Rare	Very Poor	Very Poor			0	90
swamp chestnut oak	Quercus michauxii	NSL	Low	0.1	0.4	1.9	Sm. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	91
rock elm	Ulmus thomasii	NSLX	FIA	0.1	0.4	4.4	Unknown	Unknown	Low	Rare	FIA Only	FIA Only			0	92
mountain maple	Acer spicatum	NSL	Low	0.4	0.2	0.4	Sm. dec.	No change	High	Rare	Poor	Fair			0	93
sugarberry	Celtis laevigata	NDH	Medium	0.1	0.1	1.5	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	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
bald cypress	Taxodium distichum	NSH	Medium	0.1	0.1	1.0	Sm. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	95
bigleaf magnolia	Magnolia macrophylla	NSL	Low	0.1	0.1	0.5	Sm. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	96
Atlantic white-cedar	Chamaecyparis thyoides	NSH	Low	0.1	0.1	0.9	No change	Lg. dec.	Low	Rare	Very Poor	Very Poor			0	97
blackjack oak	Quercus marilandica	NSL	Medium	0.1	0.1	0.9	Lg. inc.	Lg. inc.	High	Rare	Good	Good			2	98
ashe juniper	Juniperus ashei	NDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			0	99
jack pine	Pinus banksiana	NSH	Medium	0	0	0	Unknown	Unknown	High	Absent	Unknown	Unknown			0	100
slash pine	Pinus elliotii	NDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +	3	101
longleaf pine	Pinus palustris	NSH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +	3	102
northern white-cedar	Thuja occidentalis	WSH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	103
florida maple	Acer barbatum	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	104
cittamwood/gum bumelia	Sideroxylon lanuginosum ssp.	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat			3	105
water hickory	Carya aquatica	NSL	Medium	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	106
pecan	Carya illinoensis	NSH	Low	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat		Migrate ++	3	107
black hickory	Carya texana	NDL	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	108
loblolly-bay	Gordonia lasianthus	NSH	Medium	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	109
silverbell	Halesia spp.	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	110
southern magnolia	Magnolia grandiflora	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	111
water tupelo	Nyssa aquatica	NSH	Medium	0	0	0	Unknown	Unknown	Low	Absent	Unknown	Unknown			0	112
swamp tupelo	Nyssa biflora	NDH	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat			3	113
redbay	Persea borbonia	NSL	Low	0	0	0	Unknown	New Habitat	High	Absent	Unknown	New Habitat			3	114
cherrybark oak; swamp red o.	Quercus pagoda	NSL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +	3	115
overcup oak	Quercus lyrata	NSL	Medium	0	0	0	Unknown	New Habitat	Low	Absent	Unknown	New Habitat			3	116
water oak	Quercus nigra	WDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate ++	3	117
willow oak	Quercus phellos	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +	3	118
Shumard oak	Quercus shumardii	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	119
live oak	Quercus virginiana	NDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	120
bluejack oak	Quercus incana	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +	3	121
winged elm	Ulmus alata	WDL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate ++	3	122
cedar elm	Ulmus crassifolia	NDH	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat			0	123