



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
loblolly pine	Pinus taeda	WDH	High	64.4	2996.4	36.0	No change	No change	Medium	Abundant	Good	Good			1	1
water oak	Quercus nigra	WDH	High	71.6	643.0	7.3	Sm. inc.	Sm. inc.	Medium	Abundant	Very Good	Very Good			1	2
sweetgum	Liquidambar styraciflua	WDH	High	66.5	613.6	8.0	Sm. inc.	Sm. inc.	Medium	Abundant	Very Good	Very Good			1	3
bald cypress	Taxodium distichum	NSH	Medium	26.7	462.0	14.8	No change	No change	Medium	Common	Fair	Fair			1	4
water tupelo	Nyssa aquatica	NSH	Medium	22	435.0	21.4	Sm. dec.	Sm. dec.	Low	Common	Poor	Poor			0	5
red maple	Acer rubrum	WDH	High	64.7	388.1	4.7	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good			1	6
blackgum	Nyssa sylvatica	WDL	Medium	62.6	302.7	3.8	No change	No change	High	Common	Good	Good			1	7
laurel oak	Quercus laurifolia	NDH	Medium	36.1	194.0	4.9	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	8
green ash	Fraxinus pennsylvanica	WSH	Low	32.8	181.9	4.7	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	9
spruce pine	Pinus glabra	NSL	Low	23.6	171.1	6.5	Lg. dec.	Lg. dec.	Medium	Common	Poor	Poor			0	10
yellow-poplar	Liriodendron tulipifera	WDH	High	21.1	157.9	5.6	Sm. dec.	Sm. dec.	High	Common	Fair	Fair			1	11
American hornbeam; musclev	Carpinus caroliniana	WSL	Low	36.8	139.7	3.3	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	12
sugarberry	Celtis laevigata	NDH	Medium	10.6	124.8	7.9	Sm. inc.	Lg. inc.	Medium	Common	Good	Very Good	Infill ++	Infill ++	1	13
black willow	Salix nigra	NSH	Low	12.8	123.6	7.4	Sm. inc.	Lg. inc.	Low	Common	Fair	Good			1	14
American elm	Ulmus americana	WDH	Medium	21.5	113.1	4.0	Sm. inc.	Lg. inc.	Medium	Common	Good	Very Good			1	15
American beech	Fagus grandifolia	WDH	High	21	111.1	3.8	No change	No change	Medium	Common	Fair	Fair			1	16
slash pine	Pinus elliotii	NDH	High	8	110.2	9.1	Sm. inc.	Sm. inc.	Medium	Common	Good	Good	Infill ++	Infill ++	1	17
swamp tupelo	Nyssa biflora	NDH	Medium	20	108.7	5.5	Sm. inc.	Sm. inc.	Low	Common	Fair	Fair			1	18
post oak	Quercus stellata	WDH	High	21.3	103.5	4.4	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	19
longleaf pine	Pinus palustris	NSH	Medium	10.3	96.0	9.3	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good	Infill ++	Infill ++	1	20
white oak	Quercus alba	WDH	Medium	23.6	96.0	2.9	No change	Sm. inc.	High	Common	Good	Very Good			1	21
southern red oak	Quercus falcata	WDL	Medium	28.6	92.6	2.6	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	22
swamp chestnut oak	Quercus michauxii	NSL	Low	23.3	88.7	3.4	No change	No change	Medium	Common	Fair	Fair			1	23
southern magnolia	Magnolia grandiflora	NSL	Low	17.9	88.1	3.8	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	24
sweetbay	Magnolia virginiana	NSL	Medium	18	84.2	3.4	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	25
black cherry	Prunus serotina	WDL	Medium	28.8	77.8	2.1	Sm. inc.	Sm. inc.	Low	Common	Fair	Fair			1	26
willow oak	Quercus phellos	NSL	Low	18.3	75.8	5.1	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	27
cherrybark oak; swamp red o.	Quercus pagoda	NSL	Medium	17.9	53.8	2.3	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	28
shortleaf pine	Pinus echinata	WDH	High	10.7	40.6	2.4	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	1	29
American holly	Ilex opaca	NSL	Medium	15.7	35.1	1.3	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			1	30
mockernut hickory	Carya alba	WDL	Medium	13.8	33.9	1.8	Sm. inc.	Lg. inc.	High	Rare	Good	Good			1	31
flowering dogwood	Cornus florida	WDL	Medium	21.2	33.3	0.9	No change	No change	Medium	Rare	Poor	Poor			1	32
boxelder	Acer negundo	WSH	Low	2.9	33.1	3.3	No change	No change	High	Rare	Fair	Fair	Infill +	Infill +	2	33
pond cypress	Taxodium ascendens	NSH	Medium	3.3	29.1	7.2	Sm. dec.	No change	Medium	Rare	Very Poor	Poor		Infill +	2	34
water hickory	Carya aquatica	NSL	Medium	9.8	28.1	2.4	Sm. dec.	No change	Medium	Rare	Very Poor	Poor		Infill +	1	35
winged elm	Ulmus alata	WDL	Medium	19.8	27.9	1.1	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			1	36
redbay	Persea borbonia	NSL	Low	8.1	27.2	2.7	No change	No change	High	Rare	Fair	Fair	Infill +	Infill +	1	37
sassafras	Sassafras albidum	WSL	Low	8.4	25.9	2.7	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	38
sycamore	Platanus occidentalis	NSL	Low	7.4	23.0	1.9	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	2	39
sourwood	Oxydendrum arboreum	NDL	High	10.6	21.1	1.4	Sm. dec.	Lg. dec.	High	Rare	Poor	Poor			1	40
pecan	Carya illinoensis	NSH	Low	4	20.7	3.2	No change	No change	Low	Rare	Very Poor	Very Poor			0	41
live oak	Quercus virginiana	NDH	High	10	19.8	2.8	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	2	42
nuttall oak	Quercus texana	NSH	Medium	5.8	18.1	1.8	No change	No change	High	Rare	Fair	Fair			0	43
common persimmon	Diospyros virginiana	NSL	Low	21.2	17.4	0.6	Lg. dec.	Lg. dec.	High	Rare	Poor	Poor			1	44
river birch	Betula nigra	NSL	Low	3.7	16.9	4.2	No change	Sm. inc.	Medium	Rare	Poor	Fair	Infill +	Infill +	1	45
blackjack oak	Quercus marilandica	NSL	Medium	6.3	15.3	2.3	No change	Sm. inc.	High	Rare	Fair	Good	Infill +	Infill ++	1	46
eastern hophornbeam; ironw	Ostrya virginiana	WSL	Low	7.9	15.2	1.0	No change	No change	High	Rare	Fair	Fair	Infill +	Infill +	1	47

One x One Degree  
Climate Change Atlas Tree Species

USDA Forest Service  
Northern Research Station  
Landscape Change Research Group  
Iverson, Peters, Prasad, Matthews

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overcup oak	Quercus lyrata	NSL	Medium	3.9	13.0	2.4	No change	Lg. inc.	Low	Rare	Very Poor	Fair		Infill +		2 48
pignut hickory	Carya glabra	WDL	Medium	7.1	12.6	1.1	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +		2 49
honeylocust	Gleditsia triacanthos	NSH	Low	3	11.1	2.6	Sm. dec.	No change	High	Rare	Poor	Fair		Infill +		2 50
slippery elm	Ulmus rubra	WSL	Low	8.8	9.8	0.9	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +		1 51
Shumard oak	Quercus shumardii	NSL	Low	0.9	8.5	9.0	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor				0 52
eastern cottonwood	Populus deltoides	NSH	Low	0.6	6.2	1.4	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +		2 53
northern red oak	Quercus rubra	WDH	Medium	0.9	4.3	4.6	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor				0 54
black oak	Quercus velutina	WDH	High	3.8	4.3	0.7	No change	No change	Medium	Rare	Poor	Poor	Infill +			2 55
silverbell	Halesia spp.	NSL	Low	2.6	3.8	1.1	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor				0 56
red mulberry	Morus rubra	NSL	Low	0.4	2.3	0.3	Sm. dec.	No change	Medium	Rare	Very Poor	Poor				0 57
water elm	Planera aquatica	NSL	Low	1.9	2.2	1.1	Sm. dec.	Sm. inc.	Medium	Rare	Very Poor	Fair		Infill +		2 58
American basswood	Tilia americana	WSL	Medium	2.7	2.1	0.7	Sm. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor				0 59
bigleaf magnolia	Magnolia macrophylla	NSL	Low	0.9	1.8	1.9	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor				0 60
eastern redbud	Cercis canadensis	NSL	Low	0.2	0.9	0.2	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost				0 61
bitternut hickory	Carya cordiformis	WSL	Low	0.9	0.8	0.8	Very Lg. dec.	Very Lg. dec.	High	Rare	Lost	Lost				0 62
pin cherry	Prunus pensylvanica	NSL	Low	0.9	0.7	0.8	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor				0 63
white ash	Fraxinus americana	WDL	Medium	0.7	0.3	0.3	Lg. dec.	No change	Low	Rare	Very Poor	Very Poor				2 64
Atlantic white-cedar	Chamaecyparis thyoides	NSH	Low	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat				3 65
eastern redcedar	Juniperus virginiana	WDH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate ++		3 66
Table Mountain pine	Pinus pungens	NSL	Low	0	0	0	Unknown	Unknown	High	Absent	Unknown	Unknown				0 67
florida maple	Acer barbatum	NSL	Low	0	0	0	Unknown	Unknown	High	Modeled	Unknown	Unknown				0 68
striped maple	Acer pensylvanicum	NSL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat				3 69
silver maple	Acer saccharinum	NSH	Low	0	0	0	New Habitat	Unknown	High	Absent	New Habitat	Unknown				3 70
mountain maple	Acer spicatum	NSL	Low	0	0	0	Unknown	Unknown	High	Absent	Unknown	Unknown				0 71
serviceberry	Amelanchier spp.	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat				3 72
pawpaw	Asimina triloba	NSL	Low	0	0	0	New Habitat	Unknown	Medium	Absent	New Habitat	Unknown				3 73
cittamwood/gum bumelia	Sideroxylon lanuginosum ssp.	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate +	Migrate +		3 74
shellbark hickory	Carya laciniosa	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown				0 75
black hickory	Carya texana	NDL	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +		3 76
black ash	Fraxinus nigra	WSH	Medium	0	0	0	Unknown	Unknown	Low	Absent	Unknown	Unknown				0 77
scarlet oak	Quercus coccinea	WDL	Medium	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown				0 78
chinkapin oak	Quercus muehlenbergii	NSL	Medium	0	0	0	New Habitat	Unknown	Medium	Absent	New Habitat	Unknown				3 79
bluejack oak	Quercus incana	NSL	Low	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown				0 80
cabbage palmetto	Sabal palmetto	NDH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat				0 81
American mountain-ash	Sorbus americana	NSL	Low	0	0	0	Unknown	Unknown	Low	Absent	Unknown	Unknown				0 82
cedar elm	Ulmus crassifolia	NDH	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat	Migrate ++	Migrate ++		3 83