

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	83.4	4276.0	41.7	No change	Sm. dec.	Medium	Abundant	Good	Fair			1	1
sweetgum	Liquidambar styraciflua	WDH	High	85.9	666.7	6.1	Sm. inc.	Sm. inc.	Medium	Abundant	Very Good	Very Good			1	2
southern red oak	Quercus falcata	WDL	Medium	64.5	413.5	5.1	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good			1	3
longleaf pine	Pinus palustris	NSH	Medium	32.2	409.4	11.4	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	4
slash pine	Pinus elliottii	NDH	High	16.4	328.0	13.4	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good	Infill ++	Infill ++	1	5
water oak	Quercus nigra	WDH	High	70.2	312.6	3.6	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	6
bald cypress	Taxodium distichum	NSH	Medium	24.3	255.1	9.6	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	7
white oak	Quercus alba	WDH	Medium	52.9	234.2	3.4	No change	No change	High	Common	Good	Good			1	8
post oak	Quercus stellata	WDH	High	50.5	207.3	3.4	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	9
green ash	Fraxinus pennsylvanica	WSH	Low	48.2	199.3	3.2	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	10
blackgum	Nyssa sylvatica	WDL	Medium	66	192.9	2.2	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good			1	11
overcup oak	Quercus lyrata	NSL	Medium	23	190.8	5.7	No change	Sm. inc.	Low	Common	Poor	Fair			1	12
sugarberry	Celtis laevigata	NDH	Medium	21	181.3	9.1	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	13
water hickory	Carya aquatica	NSL	Medium	17	174.6	8.6	No change	No change	Medium	Common	Fair	Fair			1	14
red maple	Acer rubrum	WDH	High	68.7	166.7	1.9	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good			1	15
willow oak	Quercus phellos	NSL	Low	29.9	164.8	3.6	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	16
American beech	Fagus grandifolia	WDH	High	31.9	158.6	3.6	No change	No change	Medium	Common	Fair	Fair			1	17
shortleaf pine	Pinus echinata	WDH	High	34.7	139.1	3.0	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	18
American hornbeam; musclev	Carpinus caroliniana	WSL	Low	45.1	135.7	2.2	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	19
nuttall oak	Quercus texana	NSH	Medium	17.6	132.0	6.0	Lg. dec.	Sm. dec.	High	Common	Fair	Fair			0	20
flowering dogwood	Cornus florida	WDL	Medium	49.6	95.7	1.8	No change	No change	Medium	Common	Fair	Fair			1	21
cherrybark oak; swamp red o	Quercus pagoda	NSL	Medium	25.1	88.2	2.7	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	22
winged elm	Ulmus alata	WDL	Medium	41.4	78.7	1.5	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	23
mockernut hickory	Carya alba	WDL	Medium	37.7	74.3	1.7	Sm. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	24
honeylocust	Gleditsia triacanthos	NSH	Low	18.5	67.1	3.3	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good			1	25
American elm	Ulmus americana	WDH	Medium	27.2	65.8	1.7	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	26
black willow	Salix nigra	NSH	Low	5.1	50.3	14.9	No change	Sm. inc.	Low	Common	Poor	Fair	Infill +	Infill +	1	27
sycamore	Platanus occidentalis	NSL	Low	6.6	50.1	7.5	Sm. dec.	Sm. dec.	Medium	Common	Poor	Poor	Infill +	Infill +	2	28
water tupelo	Nyssa aquatica	NSH	Medium	7.3	49.9	5.5	No change	No change	Low	Rare	Very Poor	Very Poor			2	29
blackjack oak	Quercus marilandica	NSL	Medium	21.4	45.6	1.7	Lg. inc.	Lg. inc.	High	Rare	Good	Good			1	30
common persimmon	Diospyros virginiana	NSL	Low	21.7	44.3	1.4	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor			1	31
pecan	Carya illinoensis	NSH	Low	4.7	40.2	9.6	No change	Sm. inc.	Low	Rare	Very Poor	Poor		Infill +	1	32
swamp chestnut oak	Quercus michauxii	NSL	Low	20	38.3	1.8	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			1	33
eastern hophornbeam; ironw	Ostrya virginiana	WSL	Low	23.4	37.6	1.2	Lg. inc.	Lg. inc.	High	Rare	Good	Good			1	34
southern magnolia	Magnolia grandiflora	NSL	Low	18.1	32.3	1.7	Sm. inc.	Lg. inc.	Medium	Rare	Fair	Good			1	35
slippery elm	Ulmus rubra	WSL	Low	11.4	31.3	2.5	Sm. inc.	Lg. inc.	Medium	Rare	Fair	Good			1	36
laurel oak	Quercus laurifolia	NDH	Medium	13.3	25.6	0.9	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			1	37
water elm	Planera aquatica	NSL	Low	6.4	25.0	3.8	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	1	38
yellow-poplar	Liriodendron tulipifera	WDH	High	4.6	23.2	2.4	Sm. dec.	No change	High	Rare	Poor	Fair	Infill +		2	39
American holly	Ilex opaca	NSL	Medium	25.4	22.5	0.7	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			1	40
black cherry	Prunus serotina	WDL	Medium	31.3	22.3	0.6	Sm. inc.	Lg. inc.	Low	Rare	Poor	Fair			1	41
sassafras	Sassafras albidum	WSL	Low	24.2	22.0	0.8	Sm. dec.	No change	Medium	Rare	Very Poor	Poor			1	42
pignut hickory	Carya glabra	WDL	Medium	8.1	22.2	1.9	Sm. dec.	No change	Medium	Rare	Very Poor	Poor		Infill +	1	43
sweetbay	Magnolia virginiana	NSL	Medium	11.8	21.6	1.4	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			1	44
white ash	Fraxinus americana	WDL	Medium	11	14.7	1.0	Sm. inc.	Lg. inc.	Low	Rare	Poor	Fair	Infill +	Infill +	1	45
sourwood	Oxydendrum arboreum	NDL	High	10.7	12.4	0.9	Lg. dec.	Lg. dec.	High	Rare	Poor	Poor			1	46
bitternut hickory	Carya cordiformis	WSL	Low	12.3	10.3	1.2	Lg. dec.	Lg. dec.	High	Rare	Poor	Poor			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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swamp tupelo	<i>Nyssa biflora</i>	NDH	Medium	6.8	9.5	1.0	No change	No change	Low	Rare	Very Poor	Very Poor				2 48
Shumard oak	<i>Quercus shumardii</i>	NSL	Low	2.8	8.5	3.0	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor		Infill +		2 49
waterlocust	<i>Gleditsia aquatica</i>	NSLX	FIA	4.6	8.5	1.5	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only				0 50
eastern redbud	<i>Cercis canadensis</i>	NSL	Low	4.3	7.5	1.5	Sm. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor				0 51
black oak	<i>Quercus velutina</i>	WDH	High	9.6	7.1	0.5	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor				0 52
eastern redcedar	<i>Juniperus virginiana</i>	WDH	Medium	6.4	6.3	0.9	No change	Lg. inc.	Medium	Rare	Poor	Good		Infill ++		2 53
chestnut oak	<i>Quercus prinus</i>	NDH	High	0.7	6.1	4.8	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor				0 54
pond cypress	<i>Taxodium ascendens</i>	NSH	Medium	0.5	5.9	3.0	Sm. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor				0 55
river birch	<i>Betula nigra</i>	NSL	Low	0.2	5.6	1.0	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +		2 56
ogeechee tupelo	<i>Nyssa ogeche</i>	NSLX	FIA	2.9	4.5	1.1	Unknown	Unknown	Low	Rare	FIA Only	FIA Only				0 57
cedar elm	<i>Ulmus crassifolia</i>	NDH	Medium	0.5	4.1	2.2	Lg. inc.	Lg. inc.	Low	Rare	Fair	Fair	Infill +	Infill +		2 58
black locust	<i>Robinia pseudoacacia</i>	NDH	Low	2.5	3.9	2.3	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor				0 59
boxelder	<i>Acer negundo</i>	WSH	Low	4.2	2.4	0.9	Lg. inc.	Lg. inc.	High	Rare	Good	Good				2 60
red mulberry	<i>Morus rubra</i>	NSL	Low	4.5	2.3	0.4	Very Lg. dec.	Lg. dec.	Medium	Rare	Lost	Very Poor				0 61
pin cherry	<i>Prunus pensylvanica</i>	NSL	Low	4.5	2.2	0.5	No change	Sm. dec.	Medium	Rare	Poor	Very Poor				1 62
black ash	<i>Fraxinus nigra</i>	WSH	Medium	0.3	2.2	0.6	Sm. dec.	Sm. dec.	Low	Rare	Very Poor	Very Poor				0 63
hackberry	<i>Celtis occidentalis</i>	WDH	Medium	0.9	2.1	2.2	Sm. dec.	No change	High	Rare	Poor	Fair				0 64
redbay	<i>Persea borbonia</i>	NSL	Low	4.7	2.0	0.4	Sm. dec.	No change	High	Rare	Poor	Fair				0 65
eastern cottonwood	<i>Populus deltoides</i>	NSH	Low	1.9	1.9	1.0	No change	No change	Medium	Rare	Poor	Poor		Infill +		2 66
northern red oak	<i>Quercus rubra</i>	WDH	Medium	0.9	1.5	1.6	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor				0 67
swamp white oak	<i>Quercus bicolor</i>	NSL	Low	1.9	1.3	0.7	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor				0 68
pond pine	<i>Pinus serotina</i>	NSH	Medium	0.9	1.3	1.3	Sm. dec.	Sm. dec.	Low	Rare	Very Poor	Very Poor				0 69
bigleaf magnolia	<i>Magnolia macrophylla</i>	NSL	Low	1.2	1.2	0.3	No change	Sm. dec.	Medium	Rare	Poor	Very Poor				0 70
black walnut	<i>Juglans nigra</i>	WDH	Low	0.5	1.0	0.6	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost				0 71
American basswood	<i>Tilia americana</i>	WSL	Medium	0.9	1.0	1.0	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor				0 72
bluejack oak	<i>Quercus incana</i>	NSL	Low	0.9	0.6	0.6	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost				0 73
black hickory	<i>Carya texana</i>	NDL	High	0.2	0.6	0.1	Sm. inc.	Lg. inc.	Medium	Rare	Fair	Good				2 74
serviceberry	<i>Amelanchier spp.</i>	NSL	Low	0.9	0.5	0.6	No change	No change	Medium	Rare	Poor	Poor				0 75
scarlet oak	<i>Quercus coccinea</i>	WDL	Medium	0.9	0.4	0.5	No change	Sm. dec.	Medium	Rare	Poor	Very Poor				0 76
bur oak	<i>Quercus macrocarpa</i>	NDH	Medium	0.9	0.3	0.3	Lg. dec.	Lg. dec.	High	Rare	Poor	Poor				0 77
wild plum	<i>Prunus americana</i>	NSLX	FIA	0.9	0.2	0.3	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only				0 78
white mulberry	<i>Morus alba</i>	NSL	FIA	1.5	0.1	0.1	Unknown	Unknown	NA	Rare	NNIS	NNIS				0 79
striped maple	<i>Acer pensylvanicum</i>	NSL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Likely +	Likely +		3 80
silver maple	<i>Acer saccharinum</i>	NSH	Low	0	0	0	Unknown	Unknown	High	Modeled	Unknown	Unknown				0 81
cittamwood/gum bumelia	<i>Sideroxylon lanuginosum ssp.</i>	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate +	Migrate +		3 82
shellbark hickory	<i>Carya laciniosa</i>	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown				0 83
silverbell	<i>Halesia spp.</i>	NSL	Low	0	0	0	Unknown	New Habitat	Medium	Absent	Unknown	New Habitat				3 84
Osage-orange	<i>Maclura pomifera</i>	NDH	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat		Migrate +		3 85
cucumbertree	<i>Magnolia acuminata</i>	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown				0 86
chinkapin oak	<i>Quercus muehlenbergii</i>	NSL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat				3 87
live oak	<i>Quercus virginiana</i>	NDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate ++	Migrate ++		3 88