

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	89.2	4270.9	34.1	No change	Sm. dec.	Medium	Abundant	Good	Fair			1	1
sweetgum	Liquidambar styraciflua	WDH	High	89.2	1267.8	10.1	No change	No change	Medium	Abundant	Good	Good			1	2
water oak	Quercus nigra	WDH	High	78.9	648.1	6.2	Lg. inc.	Lg. inc.	Medium	Abundant	Very Good	Very Good			1	3
shortleaf pine	Pinus echinata	WDH	High	55.2	492.6	6.8	No change	Sm. inc.	Medium	Common	Fair	Good			1	4
southern red oak	Quercus falcata	WDL	Medium	71.5	406.9	4.3	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good			1	5
willow oak	Quercus phellos	NSL	Low	41.5	382.0	7.7	No change	Sm. inc.	Medium	Common	Fair	Good			1	6
winged elm	Ulmus alata	WDL	Medium	72.1	328.5	3.5	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	7
post oak	Quercus stellata	WDH	High	56.8	326.4	5.0	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	8
cherrybark oak; swamp red o	Quercus pagoda	NSL	Medium	53.8	219.3	3.3	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	9
white oak	Quercus alba	WDH	Medium	51.2	215.1	3.2	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good			1	10
red maple	Acer rubrum	WDH	High	55.3	212.2	2.8	No change	Sm. inc.	High	Common	Good	Very Good			1	11
blackgum	Nyssa sylvatica	WDL	Medium	51	187.1	2.7	Sm. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	12
sugarberry	Celtis laevigata	NDH	Medium	22.5	175.2	8.5	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	13
bald cypress	Taxodium distichum	NSH	Medium	9.5	149.5	11.4	No change	No change	Medium	Common	Fair	Fair			1	14
green ash	Fraxinus pennsylvanica	WSH	Low	44.2	147.0	3.1	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	15
black willow	Salix nigra	NSH	Low	6.6	123.9	11.1	No change	No change	Low	Common	Poor	Poor			0	16
honeylocust	Gleditsia triacanthos	NSH	Low	14.9	117.9	6.8	No change	Sm. inc.	High	Common	Good	Very Good			1	17
American hornbeam; musclev	Carpinus caroliniana	WSL	Low	34.4	95.4	1.9	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	18
pecan	Carya illinoensis	NSH	Low	9.6	91.5	9.5	No change	No change	Low	Common	Poor	Poor			0	19
American elm	Ulmus americana	WDH	Medium	23	85.9	3.3	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	20
Osage-orange	Maclura pomifera	NDH	Medium	6.7	78.4	20.9	No change	No change	High	Common	Good	Good	Infill ++	Infill ++	1	21
mockernut hickory	Carya alba	WDL	Medium	29.6	72.7	1.9	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	22
overcup oak	Quercus lyrata	NSL	Medium	16.8	57.7	3.1	Sm. inc.	Lg. inc.	Low	Common	Fair	Good			1	23
eastern cottonwood	Populus deltoides	NSH	Low	3.1	56.7	14.7	Sm. dec.	Sm. dec.	Medium	Common	Poor	Poor			0	24
flowering dogwood	Cornus florida	WDL	Medium	30	53.6	1.3	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	25
nuttall oak	Quercus texana	NSH	Medium	11	53.0	5.4	Lg. dec.	Lg. dec.	High	Common	Fair	Fair			0	26
eastern hophornbeam; ironw	Ostrya virginiana	WSL	Low	29	49.7	1.3	Lg. inc.	Lg. inc.	High	Rare	Good	Good			1	27
boxelder	Acer negundo	WSH	Low	6.6	45.0	11.1	Lg. dec.	Sm. dec.	High	Rare	Poor	Poor		Infill +	1	28
water hickory	Carya aquatica	NSL	Medium	15.1	40.2	2.9	Sm. inc.	Sm. inc.	Medium	Rare	Fair	Fair	Infill +	Infill +	1	29
water elm	Planera aquatica	NSL	Low	1.9	40.2	20.9	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	30
sweetbay	Magnolia virginiana	NSL	Medium	6.5	37.4	2.3	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	1	31
American beech	Fagus grandifolia	WDH	High	11.2	37.1	1.5	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	1	32
waterlocust	Gleditsia aquatica	NSLX	FIA	4.8	34.8	7.3	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	33
white ash	Fraxinus americana	WDL	Medium	26.8	30.7	1.0	Sm. inc.	Sm. inc.	Low	Rare	Poor	Poor			1	34
sycamore	Platanus occidentalis	NSL	Low	7.8	29.2	4.9	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	1	35
florida maple	Acer barbatum	NSL	Low	9.8	28.2	2.1	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor			1	36
Shumard oak	Quercus shumardii	NSL	Low	5.8	27.9	4.9	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor	Infill +	Infill +	1	37
American holly	Ilex opaca	NSL	Medium	15.4	27.2	0.8	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			1	38
black cherry	Prunus serotina	WDL	Medium	30.4	26.9	0.7	Sm. inc.	Lg. inc.	Low	Rare	Poor	Fair			1	39
sassafras	Sassafras albidum	WSL	Low	18.1	25.1	1.0	Sm. inc.	Sm. inc.	Medium	Rare	Fair	Fair			1	40
eastern redcedar	Juniperus virginiana	WDH	Medium	11.1	23.0	1.7	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	1	41
cedar elm	Ulmus crassifolia	NDH	Medium	7.8	21.4	2.4	Lg. inc.	Lg. inc.	Low	Rare	Fair	Fair	Infill +	Infill +	2	42
common persimmon	Diospyros virginiana	NSL	Low	15.3	20.5	0.9	Sm. dec.	Lg. inc.	High	Rare	Poor	Good			1	43
swamp tupelo	Nyssa biflora	NDH	Medium	1.2	19.8	1.5	Sm. dec.	No change	Low	Rare	Very Poor	Very Poor			2	44
shagbark hickory	Carya ovata	WSL	Medium	12.6	19.8	1.3	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	45
swamp chestnut oak	Quercus michauxii	NSL	Low	8.5	19.3	1.8	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	1	46
laurel oak	Quercus laurifolia	NDH	Medium	6.7	16.6	2.5	No change	Sm. inc.	Medium	Rare	Poor	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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pignut hickory	Carya glabra	WDL	Medium	12.8	16.5	0.9	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	48
slippery elm	Ulmus rubra	WSL	Low	8.1	14.6	1.3	No change	Sm. inc.	Medium	Rare	Poor	Fair	Infill +	Infill +	1	49
black locust	Robinia pseudoacacia	NDH	Low	2.3	14.4	3.3	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	50
blackjack oak	Quercus marilandica	NSL	Medium	7.9	11.6	1.1	Lg. inc.	Lg. inc.	High	Rare	Good	Good	Infill ++	Infill ++	1	51
black oak	Quercus velutina	WDH	High	7.4	10.4	1.3	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	52
southern magnolia	Magnolia grandiflora	NSL	Low	2.7	9.1	1.1	No change	Sm. inc.	Medium	Rare	Poor	Fair	Infill +	Infill +	2	53
river birch	Betula nigra	NSL	Low	2.1	8.8	2.5	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	2	54
eastern redbud	Cercis canadensis	NSL	Low	2.9	6.6	2.3	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	55
bitternut hickory	Carya cordiformis	WSL	Low	1.9	5.8	3.0	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor			0	56
red mulberry	Morus rubra	NSL	Low	6	5.6	0.8	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	57
slash pine	Pinus elliotii	NDH	High	2.1	5.5	1.6	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	58
pin cherry	Prunus pensylvanica	NSL	Low	4	4.6	0.9	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	59
water tupelo	Nyssa aquatica	NSH	Medium	1.9	4.2	2.2	Sm. dec.	Sm. dec.	Low	Rare	Very Poor	Very Poor			0	60
black walnut	Juglans nigra	WDH	Low	1.9	4.2	2.2	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	61
redbay	Persea borbonia	NSL	Low	2.9	3.5	1.2	Sm. dec.	No change	High	Rare	Poor	Fair			0	62
swamp white oak	Quercus bicolor	NSL	Low	1	3.3	3.5	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	63
cittamwood/gum bumelia	Sideroxylon lanuginosum ssp.	NSL	Low	1.2	2.4	1.1	Lg. inc.	Lg. inc.	High	Rare	Good	Good			2	64
sugar maple	Acer saccharum	WDH	High	1.9	1.6	0.8	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor			0	65
northern red oak	Quercus rubra	WDH	Medium	2.4	1.5	0.4	Lg. dec.	Lg. dec.	High	Rare	Poor	Poor			0	66
sourwood	Oxydendrum arboreum	NDL	High	1	1.5	1.6	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor			0	67
black hickory	Carya texana	NDL	High	0.2	1.0	0.3	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	68
wild plum	Prunus americana	NSLX	FIA	1	1.0	0.2	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	69
American basswood	Tilia americana	WSL	Medium	1.9	0.9	0.5	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost			0	70
live oak	Quercus virginiana	NDH	High	0.7	0.5	0.4	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	71
bluejack oak	Quercus incana	NSL	Low	1	0.3	0.3	No change	No change	Medium	Rare	Poor	Poor		Infill +	2	72
pawpaw	Asimina triloba	NSL	Low	1	0.3	0.3	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	73
longleaf pine	Pinus palustris	NSH	Medium	0.1	0.3	0.0	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	74
striped maple	Acer pensylvanicum	NSL	Medium	0	0	0	Unknown	New Habitat	Medium	Absent	Unknown	New Habitat			3	75
serviceberry	Amelanchier spp.	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	76
shellbark hickory	Carya laciniosa	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	77
black ash	Fraxinus nigra	WSH	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat			3	78
silverbell	Halesia spp.	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	79
cucumbertree	Magnolia acuminata	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	80
bigleaf magnolia	Magnolia macrophylla	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	81
scarlet oak	Quercus coccinea	WDL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	82
chinkapin oak	Quercus muehlenbergii	NSL	Medium	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	83