

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
sweetgum	Liquidambar styraciflua	WDH	High	70.2	783.0	17.2	No change	No change	Medium	Abundant	Good	Good			1	1
loblolly pine	Pinus taeda	WDH	High	21.4	437.7	23.8	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good	Infill ++	Infill ++	1	2
winged elm	Ulmus alata	WDL	Medium	63.1	417.6	11.1	No change	No change	Medium	Common	Fair	Fair			1	3
cherrybark oak; swamp red o	Quercus pagoda	NSL	Medium	46.4	313.9	10.4	No change	No change	Medium	Common	Fair	Fair			1	4
black willow	Salix nigra	NSH	Low	35.7	274.2	15.5	No change	Sm. inc.	Low	Common	Poor	Fair			1	5
sycamore	Platanus occidentalis	NSL	Low	36.9	236.5	12.6	Sm. dec.	Sm. dec.	Medium	Common	Poor	Poor			0	6
southern red oak	Quercus falcata	WDL	Medium	33.3	173.0	7.2	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	7
American elm	Ulmus americana	WDH	Medium	59.5	171.4	5.3	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	8
yellow-poplar	Liriodendron tulipifera	WDH	High	26.2	164.3	8.4	Sm. dec.	No change	High	Common	Fair	Good			1	9
green ash	Fraxinus pennsylvanica	WSH	Low	44	142.4	7.5	Sm. inc.	Lg. inc.	Medium	Common	Good	Very Good			1	10
eastern redcedar	Juniperus virginiana	WDH	Medium	28.6	141.7	5.6	Sm. inc.	Sm. inc.	Medium	Common	Good	Good	Infill ++	Infill ++	1	11
black cherry	Prunus serotina	WDL	Medium	40.5	131.9	5.0	No change	No change	Low	Common	Poor	Poor			0	12
boxelder	Acer negundo	WSH	Low	47.6	127.3	7.2	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good			1	13
sassafras	Sassafras albidum	WSL	Low	25	110.3	11.1	Lg. dec.	Lg. dec.	Medium	Common	Poor	Poor			0	14
sugarberry	Celtis laevigata	NDH	Medium	39.3	105.2	17.4	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	15
slippery elm	Ulmus rubra	WSL	Low	41.7	97.4	6.2	Sm. inc.	Lg. inc.	Medium	Common	Good	Very Good			1	16
post oak	Quercus stellata	WDH	High	17.9	94.1	6.0	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good	Infill ++	Infill ++	1	17
eastern hophornbeam; ironw	Ostrya virginiana	WSL	Low	17.9	80.4	5.1	No change	No change	High	Common	Good	Good			1	18
sugar maple	Acer saccharum	WDH	High	16.7	77.3	7.7	Sm. dec.	Sm. dec.	High	Common	Fair	Fair	Infill +	Infill +	2	19
pignut hickory	Carya glabra	WDL	Medium	23.8	75.8	4.2	No change	No change	Medium	Common	Fair	Fair			1	20
bitternut hickory	Carya cordiformis	WSL	Low	22.6	75.8	4.5	Sm. dec.	Sm. dec.	High	Common	Fair	Fair	Infill +	Infill +	1	21
water oak	Quercus nigra	WDH	High	11.9	72.1	8.3	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good	Infill ++	Infill ++	1	22
white oak	Quercus alba	WDL	Medium	29.8	60.6	3.5	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	23
red maple	Acer rubrum	WDH	High	29.8	59.2	3.0	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good	Infill ++	Infill ++	1	24
mockernut hickory	Carya alba	WDL	Medium	29.8	54.6	3.5	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	25
white ash	Fraxinus americana	WDL	Medium	9.5	48.2	4.6	No change	No change	Low	Rare	Very Poor	Very Poor			0	26
willow oak	Quercus phellos	NSL	Low	16.7	40.3	6.0	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	1	27
swamp chestnut oak	Quercus michauxii	NSL	Low	9.5	38.6	6.1	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	1	28
Nuttall oak	Quercus texana	NSH	Medium	8.3	34.1	6.6	No change	No change	High	Rare	Fair	Fair			0	29
blackgum	Nyssa sylvatica	WDL	Medium	11.9	33.4	3.7	Lg. inc.	Lg. inc.	High	Rare	Good	Good			1	30
common persimmon	Diospyros virginiana	NSL	Low	36.9	30.2	1.9	Lg. inc.	Lg. inc.	High	Rare	Good	Good			1	31
black oak	Quercus velutina	WDH	High	9.5	28.4	2.7	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	1	32
eastern cottonwood	Populus deltoides	NSH	Low	26.2	26.0	7.5	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	33
hackberry	Celtis occidentalis	WDH	Medium	11.9	22.9	5.8	Lg. dec.	Sm. dec.	High	Rare	Poor	Poor	Infill +	Infill +	2	34
Shumard oak	Quercus shumardii	NSL	Low	17.9	22.5	4.4	Lg. inc.	Lg. inc.	High	Rare	Good	Good	Infill ++	Infill ++	1	35
red mulberry	Morus rubra	NSL	Low	25	22.1	1.7	Sm. inc.	Sm. inc.	Medium	Rare	Fair	Fair			1	36
shagbark hickory	Carya ovata	WSL	Medium	14.3	21.7	3.7	Sm. inc.	Sm. inc.	Medium	Rare	Fair	Fair	Infill +	Infill +	1	37
pecan	Carya illinoensis	NSH	Low	36.9	21.5	4.6	Lg. inc.	Lg. inc.	Low	Rare	Fair	Fair			1	38
black walnut	Juglans nigra	WDH	Low	14.3	19.1	3.8	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	39
river birch	Betula nigra	NSL	Low	7.1	18.0	5.2	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	40
honeylocust	Gleditsia triacanthos	NSH	Low	15.5	16.3	2.5	Lg. inc.	Lg. inc.	High	Rare	Good	Good	Infill ++	Infill ++	1	41
silver maple	Acer saccharinum	NSH	Low	16.7	15.4	3.9	Lg. dec.	Lg. dec.	High	Rare	Poor	Poor			0	42
shellbark hickory	Carya laciniosa	NSL	Low	1.2	15.3	11.7	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	43
American beech	Fagus grandifolia	WDH	High	9.5	13.9	2.2	Lg. inc.	Sm. inc.	Medium	Rare	Good	Fair	Infill ++	Infill +	2	44
bald cypress	Taxodium distichum	NSH	Medium	7.1	13.3	5.2	No change	Sm. inc.	Medium	Rare	Poor	Fair	Infill +	Infill +	2	45
black hickory	Carya texana	NDL	High	4.8	13.0	2.5	Sm. inc.	Lg. inc.	Medium	Rare	Fair	Good	Infill +	Infill ++	2	46
flowering dogwood	Cornus florida	WDL	Medium	15.5	10.9	1.5	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			1	47

U.S. Census Bureau Urban Areas
Climate Change Atlas Tree Species

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

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cucumbertree	Magnolia acuminata	NSL	Low	1.2	10.4	7.9	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	2	48
shortleaf pine	Pinus echinata	WDH	High	1.2	9.9	7.5	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	2	49
black locust	Robinia pseudoacacia	NDH	Low	7.1	9.0	2.8	Sm. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	50
American hornbeam; muscle	Carpinus caroliniana	WSL	Low	3.6	8.8	2.2	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	1	51
white mulberry	Morus alba	NSL	FIA	2.4	7.1	2.7	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	52
blackjack oak	Quercus marilandica	NSL	Medium	2.4	4.3	1.7	Lg. inc.	Lg. inc.	High	Rare	Good	Good			2	53
pawpaw	Asimina triloba	NSL	Low	10.7	4.2	2.0	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	54
eastern redbud	Cercis canadensis	NSL	Low	1.2	1.2	0.9	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	2	55
water hickory	Carya aquatica	NSL	Medium	6	1.1	0.8	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	56
cedar elm	Ulmus crassifolia	NDH	Medium	1.2	1.0	0.8	Lg. inc.	Lg. inc.	Low	Rare	Fair	Fair	Infill +	Infill +	2	57
chinkapin oak	Quercus muehlenbergii	NSL	Medium	4.8	0.6	1.7	No change	No change	Medium	Rare	Poor	Poor			0	58
water tupelo	Nyssa aquatica	NSH	Medium	4.8	0.5	1.5	No change	No change	Low	Rare	Very Poor	Very Poor			0	59
ailanthus	Ailanthus altissima	NSL	FIA	9.5	0.5	0.7	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	60
scarlet oak	Quercus coccinea	WDL	Medium	4.8	0.3	0.8	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	61
Osage-orange	Maclura pomifera	NDH	Medium	1.2	0.2	0.2	Lg. inc.	Lg. inc.	High	Rare	Good	Good		Infill ++	2	62
paulownia	Paulownia tomentosa	NSL	FIA	4.8	0.2	0.5	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	63
ashe juniper	Juniperus ashei	NDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			0	64
slash pine	Pinus elliottii	NDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +	3	65
longleaf pine	Pinus palustris	NSH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	66
florida maple	Acer barbatum	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Likely +	Likely +	3	67
striped maple	Acer pensylvanicum	NSL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	68
serviceberry	Amelanchier spp.	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	69
cittamwood/gum bumelia	Sideroxylon lanuginosum ssp.	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate +	Migrate ++	3	70
black ash	Fraxinus nigra	WSH	Medium	0	0	0	Unknown	Unknown	Low	Absent	Unknown	Unknown			0	71
American holly	Ilex opaca	NSL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	72
southern magnolia	Magnolia grandiflora	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	73
bigleaf magnolia	Magnolia macrophylla	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	74
swamp tupelo	Nyssa biflora	NDH	Medium	0	0	0	Unknown	Unknown	Low	Modeled	Unknown	Unknown			0	75
sourwood	Oxydendrum arboreum	NDL	High	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat			3	76
water elm	Planera aquatica	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate ++	Migrate ++	3	77
pin cherry	Prunus pensylvanica	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	78
laurel oak	Quercus laurifolia	NDH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Likely +	Likely +	3	79
overcup oak	Quercus lyrata	NSL	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat	Likely +	Likely +	3	80
bur oak	Quercus macrocarpa	NDH	Medium	0	0	0	Unknown	Unknown	High	Modeled	Unknown	Unknown			0	81
chestnut oak	Quercus prinus	NDH	High	0	0	0	Unknown	Unknown	High	Modeled	Unknown	Unknown			0	82
northern red oak	Quercus rubra	WDH	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	83
live oak	Quercus virginiana	NDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	84
American basswood	Tilia americana	WSL	Medium	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0	85