

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
pitch pine	Pinus rigida	NSH	High	32.1	1093.3	39.3	Lg. dec.	Lg. dec.	Medium	Abundant	Fair	Fair			0	1
red maple	Acer rubrum	WDH	High	80.2	800.4	18.0	No change	Sm. dec.	High	Abundant	Very Good	Good			1	2
white oak	Quercus alba	WDH	Medium	38.3	364.9	14.4	No change	No change	High	Common	Good	Good			1	3
sweetgum	Liquidambar styraciflua	WDH	High	21	297.9	21.0	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	4
black oak	Quercus velutina	WDH	High	46.9	261.1	9.8	Sm. inc.	No change	Medium	Common	Good	Fair			1	5
blackgum	Nyssa sylvatica	WDL	Medium	46.9	255.5	7.7	No change	No change	High	Common	Good	Good			1	6
white ash	Fraxinus americana	WDL	Medium	39.5	241.2	14.5	Sm. dec.	Lg. dec.	Low	Common	Poor	Very Poor			0	7
black cherry	Prunus serotina	WDL	Medium	51.9	234.3	10.5	No change	No change	Low	Common	Poor	Poor			0	8
eastern redcedar	Juniperus virginiana	WDH	Medium	40.8	192.7	13.0	Sm. dec.	No change	Medium	Common	Poor	Fair			1	9
Atlantic white-cedar	Chamaecyparis thyoides	NSH	Low	6.2	162.6	24.1	Sm. dec.	Sm. dec.	Low	Common	Poor	Poor	Infill +	Infill +	0	10
chestnut oak	Quercus prinus	NDH	High	28.4	149.9	8.0	No change	Lg. dec.	High	Common	Good	Fair			1	11
sassafras	Sassafras albidum	WSL	Low	42	131.7	5.3	Sm. dec.	Lg. dec.	Medium	Common	Poor	Poor			0	12
sugar maple	Acer saccharum	WDH	High	28.4	129.4	10.0	No change	Sm. dec.	High	Common	Good	Fair	Infill ++	Infill +	1	13
yellow-poplar	Liriodendron tulipifera	WDH	High	29.7	122.0	8.0	Lg. inc.	Sm. inc.	High	Common	Very Good	Very Good			1	14
northern red oak	Quercus rubra	WDH	Medium	34.5	107.4	6.5	Sm. inc.	No change	High	Common	Very Good	Good			1	15
pin oak	Quercus palustris	NSH	Low	22.2	102.6	12.0	Sm. dec.	Lg. dec.	Low	Common	Poor	Very Poor			0	16
American beech	Fagus grandifolia	WDH	High	24.7	99.4	7.0	Sm. inc.	No change	Medium	Common	Good	Fair	Infill ++	Infill +	1	17
scarlet oak	Quercus coccinea	WDL	Medium	33.3	95.0	5.6	Sm. inc.	No change	Medium	Common	Good	Fair			1	18
black walnut	Juglans nigra	WDH	Low	26	68.7	5.8	No change	Sm. dec.	Medium	Common	Fair	Poor			1	19
green ash	Fraxinus pennsylvanica	WSH	Low	9.9	68.6	10.2	No change	No change	Medium	Common	Fair	Fair	Infill +	Infill +	1	20
eastern white pine	Pinus strobus	WDH	High	21	63.8	7.5	Lg. dec.	Very Lg. dec.	Low	Common	Very Poor	Lost			0	21
eastern cottonwood	Populus deltoides	NSH	Low	7.4	50.7	15.9	Sm. dec.	Sm. dec.	Medium	Common	Poor	Poor		Infill +	0	22
sweet birch	Betula lenta	NDH	High	18.5	40.4	3.8	Lg. dec.	Lg. dec.	Low	Rare	Very Poor	Very Poor			0	23
mockernut hickory	Carya alba	WDL	Medium	19.8	35.3	3.8	Lg. inc.	Lg. inc.	High	Rare	Good	Good			1	24
Scots pine	Pinus sylvestris	NSH	FIA	1.2	35.2	26.1	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	25
shagbark hickory	Carya ovata	WSL	Medium	8.6	33.3	6.5	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	1	26
pignut hickory	Carya glabra	WDL	Medium	14.8	28.7	3.7	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	1	27
black locust	Robinia pseudoacacia	NDH	Low	12.3	23.5	4.8	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			1	28
American elm	Ulmus americana	WDH	Medium	24.7	23.1	3.3	Sm. inc.	Lg. inc.	Medium	Rare	Fair	Good	Infill +	Infill ++	1	29
sycamore	Platanus occidentalis	NSL	Low	13.6	19.7	3.4	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	1	30
eastern hemlock	Tsuga canadensis	NSH	High	8.6	19.6	3.8	Lg. dec.	Very Lg. dec.	Low	Rare	Very Poor	Lost			0	31
slippery elm	Ulmus rubra	WSL	Low	8.6	16.7	3.3	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	1	32
ailanthus	Ailanthus altissima	NSL	FIA	7.3	13.6	3.8	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	33
shortleaf pine	Pinus echinata	WDH	High	2.5	13.1	4.8	No change	Lg. inc.	Medium	Rare	Poor	Good	Infill +	Infill ++	1	34
sweetbay	Magnolia virginiana	NSL	Medium	12.4	12.1	1.3	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	1	35
post oak	Quercus stellata	WDH	High	6.2	11.8	1.8	Lg. inc.	Lg. inc.	High	Rare	Good	Good	Infill ++	Infill ++	2	36
Norway maple	Acer platanoides	NSL	FIA	13.5	11.4	1.8	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	37
river birch	Betula nigra	NSL	Low	7.4	10.0	3.4	No change	No change	Medium	Rare	Poor	Poor		Infill +	1	38
silver maple	Acer saccharinum	NSH	Low	6.2	9.2	4.0	No change	Sm. inc.	High	Rare	Fair	Good	Infill +	Infill ++	2	39
Osage-orange	Maclura pomifera	NDH	Medium	6.2	9.1	10.4	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor			1	40
bear oak; scrub oak	Quercus ilicifolia	NSLX	FIA	7.4	8.9	1.1	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	41
eastern hophornbeam; ironw	Ostrya virginiana	WSL	Low	17.3	8.8	1.5	Lg. inc.	Lg. inc.	High	Rare	Good	Good	Infill ++	Infill ++	1	42
blackjack oak	Quercus marilandica	NSL	Medium	4.9	8.6	1.6	No change	Sm. inc.	High	Rare	Fair	Good	Infill +	Infill ++	2	43
Virginia pine	Pinus virginiana	NDH	High	4.9	8.0	1.5	Lg. inc.	Sm. inc.	Medium	Rare	Good	Fair	Infill ++	Infill +	1	44
Norway spruce	Picea abies	NSH	FIA	11.1	7.8	3.9	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	45
boxelder	Acer negundo	WSH	Low	21	7.6	3.8	Lg. inc.	Lg. inc.	High	Rare	Good	Good			1	46
red pine	Pinus resinosa	NSH	Medium	1.2	6.0	4.4	Very Lg. dec.	Very Lg. dec.	Low	Rare	Lost	Lost			0	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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flowering dogwood	Cornus florida	WDL	Medium	17.3	5.7	1.2	Sm. inc.	Lg. inc.	Medium	Rare	Fair	Good			1	48
willow oak	Quercus phellos	NSL	Low	3.7	5.7	1.4	Sm. inc.	Lg. inc.	Medium	Rare	Fair	Good	Infill +	Infill ++	2	49
red mulberry	Morus rubra	NSL	Low	1.2	5.1	3.8	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	50
American basswood	Tilia americana	WSL	Medium	7.4	5.0	1.5	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost			0	51
American holly	Ilex opaca	NSL	Medium	2.5	4.9	1.8	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	1	52
bitternut hickory	Carya cordiformis	WSL	Low	9.9	3.7	5.5	Lg. inc.	Lg. inc.	High	Rare	Good	Good	Infill ++	Infill ++	1	53
gray birch	Betula populifolia	NSL	Low	9.9	2.8	1.2	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	54
bigtooth aspen	Populus grandidentata	NSL	Medium	1.2	2.1	1.6	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost			0	55
southern red oak	Quercus falcata	WDL	Medium	1.2	1.5	1.1	Lg. inc.	Lg. inc.	High	Rare	Good	Good	Infill ++	Infill ++	2	56
swamp white oak	Quercus bicolor	NSL	Low	1.2	1.1	0	No change	Very Lg. dec.	Medium	Rare	Poor	Lost	Infill +		2	57
yellow birch	Betula alleghaniensis	NDL	High	1.2	0.9	0.6	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost			0	58
American hornbeam; musclev	Carpinus caroliniana	WSL	Low	14.8	0.6	0.6	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	1	59
laurel oak	Quercus laurifolia	NDH	Medium	4.9	0.4	1.2	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	60
serviceberry	Amelanchier spp.	NSL	Low	4.9	0.1	0.3	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	61
slash pine	Pinus elliotii	NDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			0	62
longleaf pine	Pinus palustris	NSH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	63
pond pine	Pinus serotina	NSH	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat	Likely +	Likely +	3	64
loblolly pine	Pinus taeda	WDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate ++	Migrate ++	3	65
bald cypress	Taxodium distichum	NSH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	66
pond cypress	Taxodium ascendens	NSH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	67
striped maple	Acer pensylvanicum	NSL	Medium	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	68
pawpaw	Asimina triloba	NSL	Low	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0	69
cittamwood/gum bumelia	Sideroxylon lanuginosum ssp.	NSL	Low	0	0	0	Unknown	New Habitat	High	Absent	Unknown	New Habitat			0	70
pecan	Carya illinoensis	NSH	Low	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat			3	71
black hickory	Carya texana	NDL	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			0	72
sugarberry	Celtis laevigata	NDH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +	3	73
hackberry	Celtis occidentalis	WDH	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Likely +	Likely +	3	74
eastern redbud	Cercis canadensis	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +	3	75
common persimmon	Diospyros virginiana	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	76
black ash	Fraxinus nigra	WSH	Medium	0	0	0	Unknown	Unknown	Low	Modeled	Unknown	Unknown			0	77
loblolly-bay	Gordonia lasianthus	NSH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	78
bigleaf magnolia	Magnolia macrophylla	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	79
water tupelo	Nyssa aquatica	NSH	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat		Migrate +	3	80
swamp tupelo	Nyssa biflora	NDH	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat	Migrate +	Migrate ++	3	81
sourwood	Oxydendrum arboreum	NDL	High	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate +		3	82
redbay	Persea borbonia	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	83
pin cherry	Prunus pensylvanica	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	84
cherrybark oak; swamp red o.	Quercus pagoda	NSL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	85
shingle oak	Quercus imbricaria	NDH	Medium	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0	86
turkey oak	Quercus laevis	NSH	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat			3	87
overcup oak	Quercus lyrata	NSL	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat			3	88
swamp chestnut oak	Quercus michauxii	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	89
water oak	Quercus nigra	WDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate ++	3	90
bluejack oak	Quercus incana	NSL	Low	0	0	0	Unknown	New Habitat	Medium	Absent	Unknown	New Habitat			0	91
winged elm	Ulmus alata	WDL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate ++	3	92