

One x One Degree
Climate Change Atlas Tree Species

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	94.6	4180.0	29.3	No change	No change	Medium	Abundant	Good	Good			1	1
sweetgum	Liquidambar styraciflua	WDH	High	93.5	1142.6	8.5	Sm. inc.	Sm. inc.	Medium	Abundant	Very Good	Very Good			1	2
yellow-poplar	Liriodendron tulipifera	WDH	High	81.3	771.5	7.1	Sm. dec.	Sm. dec.	High	Abundant	Good	Good			1	3
white oak	Quercus alba	WDH	Medium	77.3	486.9	4.5	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good			1	4
water oak	Quercus nigra	WDH	High	66.9	481.9	4.8	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	5
red maple	Acer rubrum	WDH	High	77	441.8	3.8	No change	Sm. inc.	High	Common	Good	Very Good			1	6
southern red oak	Quercus falcata	WDL	Medium	72	409.1	4.3	Sm. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	7
shortleaf pine	Pinus echinata	WDH	High	71.1	371.8	3.5	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	8
chestnut oak	Quercus prinus	NDH	High	43.9	273.9	4.8	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good			1	9
pignut hickory	Carya glabra	WDL	Medium	64.9	266.5	3.0	No change	No change	Medium	Common	Fair	Fair			1	10
sourwood	Oxydendrum arboreum	NDL	High	66.8	258.1	3.1	Sm. dec.	Sm. dec.	High	Common	Fair	Fair			1	11
flowering dogwood	Cornus florida	WDL	Medium	78.3	235.8	2.4	No change	No change	Medium	Common	Fair	Fair			1	12
mockernut hickory	Carya alba	WDL	Medium	65.6	227.1	2.6	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	13
post oak	Quercus stellata	WDH	High	56.1	212.4	3.2	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	14
blackgum	Nyssa sylvatica	WDL	Medium	70.1	205.5	1.8	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	15
black oak	Quercus velutina	WDH	High	52.3	200.1	2.9	No change	Sm. dec.	Medium	Common	Fair	Poor			1	16
black cherry	Prunus serotina	WDL	Medium	73.7	189.0	1.8	Sm. inc.	Lg. inc.	Low	Common	Fair	Good			1	17
scarlet oak	Quercus coccinea	WDL	Medium	44.8	188.6	3.1	Sm. dec.	Sm. dec.	Medium	Common	Poor	Poor			0	18
Virginia pine	Pinus virginiana	NDH	High	27.5	167.4	4.5	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	19
longleaf pine	Pinus palustris	NSH	Medium	22.5	141.9	4.1	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	20
northern red oak	Quercus rubra	WDH	Medium	32.3	103.6	2.5	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good			1	21
blackjack oak	Quercus marilandica	NSL	Medium	32	101.2	2.5	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	22
winged elm	Ulmus alata	WDL	Medium	24.8	84.3	1.7	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	23
green ash	Fraxinus pennsylvanica	WSH	Low	14	69.9	3.3	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	24
American hornbeam; muscley	Carpinus caroliniana	WSL	Low	25.8	56.7	1.5	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	25
American beech	Fagus grandifolia	WDH	High	29.2	53.2	1.3	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good	Infill ++	Infill ++	1	26
common persimmon	Diospyros virginiana	NSL	Low	30.2	49.1	1.0	Lg. inc.	Lg. inc.	High	Rare	Good	Good			1	27
eastern redcedar	Juniperus virginiana	WDH	Medium	20.3	47.2	1.7	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			1	28
American elm	Ulmus americana	WDH	Medium	9	34.8	2.5	No change	Sm. inc.	Medium	Rare	Poor	Fair	Infill +	Infill +	1	29
black walnut	Juglans nigra	WDH	Low	3.8	32.7	1.7	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	30
florida maple	Acer barbatum	NSL	Low	11.7	31.4	1.7	Sm. inc.	Lg. inc.	High	Rare	Good	Good			1	31
cherrybark oak; swamp red o	Quercus pagoda	NSL	Medium	7.3	28.8	2.9	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	1	32
sassafras	Sassafras albidum	WSL	Low	21	27.3	0.6	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			1	33
sweetbay	Magnolia virginiana	NSL	Medium	7.2	24.8	2.3	Sm. inc.	Sm. inc.	Medium	Rare	Fair	Fair	Infill +	Infill +	1	34
willow oak	Quercus phellos	NSL	Low	5.4	24.4	2.0	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	2	35
shagbark hickory	Carya ovata	WSL	Medium	9.1	22.8	1.5	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	1	36
eastern hophornbeam; ironw	Ostrya virginiana	WSL	Low	9	17.4	1.3	Sm. inc.	Lg. inc.	High	Rare	Good	Good			1	37
black willow	Salix nigra	NSH	Low	5.8	16.3	2.8	No change	Sm. inc.	Low	Rare	Very Poor	Poor		Infill +	1	38
sugarberry	Celtis laevigata	NDH	Medium	1.3	15.7	2.0	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	2	39
swamp tupelo	Nyssa biflora	NDH	Medium	2.2	14.8	2.0	No change	No change	Low	Rare	Very Poor	Very Poor			2	40
sycamore	Platanus occidentalis	NSL	Low	5	11.2	1.5	No change	Sm. inc.	Medium	Rare	Poor	Fair	Infill +	Infill +	2	41
eastern redbud	Cercis canadensis	NSL	Low	4.7	9.4	1.8	No change	No change	Medium	Rare	Poor	Poor			1	42
river birch	Betula nigra	NSL	Low	4.5	8.6	1.6	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	1	43
white ash	Fraxinus americana	WDL	Medium	6.2	8.5	1.2	No change	No change	Low	Rare	Very Poor	Very Poor			0	44
boxelder	Acer negundo	WSH	Low	0.9	8.3	2.7	No change	No change	High	Rare	Fair	Fair		Infill +	2	45
pecan	Carya illinoensis	NSH	Low	3.7	7.4	1.9	No change	Lg. inc.	Low	Rare	Very Poor	Fair		Infill +	2	46
laurel oak	Quercus laurifolia	NDH	Medium	5.5	7.2	0.6	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	1	47

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red mulberry	Morus rubra	NSL	Low	4.8	6.9	0.8	No change	Sm. inc.	Medium	Rare	Poor	Fair		Infill +		1	48
American holly	Ilex opaca	NSL	Medium	3.8	3.4	0.3	No change	Sm. inc.	Medium	Rare	Poor	Fair		Infill +		2	49
sugar maple	Acer saccharum	WDH	High	1	2.9	3.0	Lg. dec.	Very Lg. dec.	High	Rare	Poor	Lost				0	50
chinkapin oak	Quercus muehlenbergii	NSL	Medium	0.3	2.7	0.8	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor				0	51
American basswood	Tilia americana	WSL	Medium	1.9	2.7	1.4	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor				0	52
swamp chestnut oak	Quercus michauxii	NSL	Low	1.3	2.7	0.5	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor				0	53
slippery elm	Ulmus rubra	WSL	Low	0.7	2.6	0.2	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +		2	54
cucumbertree	Magnolia acuminata	NSL	Low	1	2.5	2.6	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor				0	55
eastern cottonwood	Populus deltoides	NSH	Low	0.1	2.4	0.4	Sm. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor				0	56
black locust	Robinia pseudoacacia	NDH	Low	2.9	1.5	0.5	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost				0	57
bigleaf magnolia	Magnolia macrophylla	NSL	Low	1.9	1.4	0.7	No change	Sm. inc.	Medium	Rare	Poor	Fair	Infill +	Infill +		2	58
honeylocust	Gleditsia triacanthos	NSH	Low	0.8	1.4	1.1	Sm. inc.	Lg. inc.	High	Rare	Good	Good				2	59
shellbark hickory	Carya laciniosa	NSL	Low	1	1.3	1.3	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor				0	60
wild plum	Prunus americana	NSLX	FIA	0.7	1.2	0.9	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only				0	61
paulownia	Paulownia tomentosa	NSL	FIA	1	1.0	1.0	Unknown	Unknown	NA	Rare	NNIS	NNIS				0	62
overcup oak	Quercus lyrata	NSL	Medium	0.1	0.9	0.1	Very Lg. dec.	Very Lg. dec.	Low	Rare	Lost	Lost				0	63
yellow birch	Betula alleghaniensis	NDL	High	1	0.4	0.4	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor				0	64
silver maple	Acer saccharinum	NSH	Low	1	0.4	0.4	Lg. dec.	Lg. dec.	High	Rare	Poor	Poor				0	65
ashe juniper	Juniperus ashei	NDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat				0	66
slash pine	Pinus elliotii	NDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate ++	Migrate ++		3	67
spruce pine	Pinus glabra	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +			3	68
striped maple	Acer pensylvanicum	NSL	Medium	0	0	0	Unknown	New Habitat	Medium	Absent	Unknown	New Habitat				3	69
yellow buckeye	Aesculus flava	NSL	Low	0	0	0	Unknown	Unknown	Low	Absent	Unknown	Unknown				0	70
serviceberry	Amelanchier spp.	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown				0	71
pawpaw	Asimina triloba	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown				0	72
sweet birch	Betula lenta	NDH	High	0	0	0	Unknown	Unknown	Low	Absent	Unknown	Unknown				0	73
cittamwood/gum bumelia	Sideroxylon lanuginosum ssp.	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat		Migrate ++		3	74
black hickory	Carya texana	NDL	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate +		3	75
hackberry	Celtis occidentalis	WDH	Medium	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	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat				0	77
silverbell	Halesia spp.	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat				3	78
Osage-orange	Maclura pomifera	NDH	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat		Migrate +		3	79
southern magnolia	Magnolia grandiflora	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Likely +	Likely +		3	80
mountain or Fraser magnolia	Magnolia fraseri	NSL	Low	0	0	0	Unknown	Unknown	Low	Absent	Unknown	Unknown				0	81
redbay	Persea borbonia	NSL	Low	0	0	0	Unknown	New Habitat	High	Absent	Unknown	New Habitat				3	82
Shumard oak	Quercus shumardii	NSL	Low	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	Migrate ++	Migrate ++		3	84
bluejack oak	Quercus incana	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +		3	85
cedar elm	Ulmus crassifolia	NDH	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat				3	86