

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	83.9	1747.13	24.97	Sm. inc.	Sm. inc.	Medium	Abundant	Very Good	Very Good	Infill ++	Infill ++	1	1
yellow-poplar	Liriodendron tulipifera	WDH	High	82.8	1045.15	14.8	Lg. dec.	Lg. dec.	High	Abundant	Good	Good	Infill ++	Infill ++	1	2
sweetgum	Liquidambar styraciflua	WDH	High	80.5	903.78	13.34	No change	Sm. inc.	Medium	Abundant	Good	Very Good	Infill ++	Infill ++	1	3
white oak	Quercus alba	WDH	Medium	67.8	529.44	8.82	No change	No change	High	Abundant	Very Good	Very Good	Infill ++	Infill ++	1	4
water oak	Quercus nigra	WDH	High	60.9	335.67	6.73	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good	Infill ++	Infill ++	1	5
red maple	Acer rubrum	WDH	High	60.9	331.06	5.8	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good	Infill ++	Infill ++	1	6
southern red oak	Quercus falcata	WDL	Medium	59.8	287.44	5.72	Sm. inc.	Lg. inc.	High	Common	Very Good	Very Good	Infill ++	Infill ++	1	7
black cherry	Prunus serotina	WDL	Medium	49.4	207.17	4.85	Sm. inc.	Sm. inc.	Low	Common	Fair	Fair	Infill +	Infill +	1	8
sourwood	Oxydendrum arboreum	NDL	High	52.9	202.01	4.59	Sm. dec.	Sm. dec.	High	Common	Fair	Fair	Infill +	Infill +	1	9
moccenut hickory	Carya alba	WDL	Medium	36.8	195.16	6	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good	Infill ++	Infill ++	1	10
Virginia pine	Pinus virginiana	NDH	High	25.3	184.93	7.31	Lg. dec.	Lg. dec.	Medium	Common	Poor	Poor	Infill +	Infill +	0	11
pignut hickory	Carya glabra	WDL	Medium	49.4	183.1	4.03	No change	Sm. dec.	Medium	Common	Fair	Poor	Infill +	Infill +	1	12
shortleaf pine	Pinus echinata	WDH	High	47.1	161.72	4.17	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good	Infill ++	Infill ++	1	13
scarlet oak	Quercus coccinea	WDL	Medium	33.3	148.52	6.15	Sm. dec.	Sm. dec.	Medium	Common	Poor	Poor	Infill +	Infill +	0	14
blackgum	Nyssa sylvatica	WDL	Medium	49.4	147.94	3.57	Sm. inc.	Lg. inc.	High	Common	Very Good	Very Good	Infill ++	Infill ++	1	15
chestnut oak	Quercus prinus	NDH	High	16.1	144.02	8.95	No change	No change	High	Common	Good	Good	Infill ++	Infill ++	1	16
green ash	Fraxinus pennsylvanica	WSH	Low	20.7	142.2	6.87	No change	Sm. inc.	Medium	Common	Fair	Good	Infill +	Infill ++	1	17
flowering dogwood	Cornus florida	WDL	Medium	51.7	131.59	2.76	No change	No change	Medium	Common	Fair	Fair	Infill +	Infill +	1	18
black oak	Quercus velutina	WDH	High	29.9	107.36	4.14	Sm. inc.	No change	Medium	Common	Good	Fair	Infill ++	Infill +	1	19
post oak	Quercus stellata	WDH	High	42.5	106.14	3.14	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good	Infill ++	Infill ++	1	20
boxelder	Acer negundo	WSH	Low	13.8	102.77	7.45	Lg. dec.	Lg. dec.	High	Common	Fair	Fair		Infill +	2	21
northern red oak	Quercus rubra	WDH	Medium	31	90.01	3.96	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good	Infill ++	Infill ++	1	22
American beech	Fagus grandifolia	WDH	High	24.1	42.72	1.77	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	2	23
black walnut	Juglans nigra	WDH	Low	4.6	35.57	7.74	Lg. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	24
black willow	Salix nigra	NSH	Low	3.4	35.57	10.32	No change	No change	Low	Rare	Very Poor	Very Poor			2	25
sycamore	Platanus occidentalis	NSL	Low	8	32.46	4.03	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	2	26
common persimmon	Diospyros virginiana	NSL	Low	21.8	31.67	2.27	Sm. inc.	Sm. inc.	High	Rare	Good	Good	Infill ++	Infill ++	1	27
blackjack oak	Quercus marilandica	NSL	Medium	4.6	30.53	6.64	Lg. inc.	Lg. inc.	High	Rare	Good	Good	Infill ++	Infill ++	2	28
eastern redcedar	Juniperus virginiana	WDH	Medium	10.3	29.53	2.85	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	1	29
eastern hophornbeam; ironw	Ostrya virginiana	WSL	Low	14.9	29.2	2.62	Lg. inc.	Lg. inc.	High	Rare	Good	Good	Infill ++	Infill ++	1	30
American hornbeam; muscle	Carpinus caroliniana	WSL	Low	12.6	28.21	2.23	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	1	31
river birch	Betula nigra	NSL	Low	6.9	23.83	3.46	No change	Sm. inc.	Medium	Rare	Poor	Fair	Infill +	Infill +	2	32
florida maple	Acer barbatum	NSL	Low	12.6	22.85	2.58	Sm. inc.	Lg. inc.	High	Rare	Good	Good	Infill ++	Infill ++	2	33
red mulberry	Morus rubra	NSL	Low	8	19.54	2.43	No change	No change	Medium	Rare	Poor	Poor		Infill +	2	34
winged elm	Ulmus alata	WDL	Medium	13.8	16.89	1.22	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	1	35
sweetbay	Magnolia virginiana	NSL	Medium	1.1	13.91	12.1	Sm. inc.	Lg. inc.	Medium	Rare	Fair	Good			2	36
southern magnolia	Magnolia grandiflora	NSL	Low	5.7	13.16	8.2	No change	Sm. inc.	Medium	Rare	Poor	Fair	Infill +	Infill +	2	37
sassafras	Sassafras albidum	WSL	Low	14.9	12.7	0.85	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good		Infill ++	1	38
willow oak	Quercus phellos	NSL	Low	2.3	11.49	5	No change	No change	Medium	Rare	Poor	Poor		Infill +	2	39
bitternut hickory	Carya cordiformis	WSL	Low	3.4	11.38	3.3	Lg. dec.	Lg. dec.	High	Rare	Poor	Poor			0	40
eastern white pine	Pinus strobus	WDH	High	2.3	11.09	4.83	Sm. dec.	Lg. dec.	Low	Rare	Very Poor	Very Poor			0	41
American elm	Ulmus americana	WDH	Medium	5.7	10.02	1.75	Sm. inc.	Lg. inc.	Medium	Rare	Fair	Good			2	42
sugarberry	Celtis laevigata	NDH	Medium	3.4	9.28	2.69	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	43
cucumbertree	Magnolia acuminata	NSL	Low	3.4	6.75	1.96	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	44
black locust	Robinia pseudoacacia	NDH	Low	2.3	6.24	2.72	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	45
American holly	Ilex opaca	NSL	Medium	5.7	5.45	0.95	No change	Sm. inc.	Medium	Rare	Poor	Fair		Infill +	1	46
ailanthus	Ailanthus altissima	NSL	FIA	1.1	4.83	4.2	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	47
white ash	Fraxinus americana	WDL	Medium	2.3	4.11	1.79	No change	No change	Low	Rare	Very Poor	Very Poor			2	48
swamp chestnut oak	Quercus michauxii	NSL	Low	2.3	3.74	1.63	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	49
slippery elm	Ulmus rubra	WSL	Low	2.3	3.56	1.55	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	50
eastern redbud	Cercis canadensis	NSL	Low	2.3	1.78	0.78	No change	Sm. inc.	Medium	Rare	Poor	Fair		Infill +	2	51
bigleaf magnolia	Magnolia macrophylla	NSL	Low	1.1	1.78	1.55	Lg. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	52
swamp tupelo	Nyssa biflora	NDH	Medium	1.1	1.61	1.4	Lg. inc.	Lg. inc.	Low	Rare	Fair	Fair	Infill +	Infill +	2	53

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paulownia	Paulownia tomentosa	NSL	FIA	1.1	1.38	1.2	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	54
American basswood	Tilia americana	WSL	Medium	1.1	1.26	1.1	Sm. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	55
shellbark hickory	Carya laciniosa	NSL	Low	1.1	1.09	0.95	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	56
serviceberry	Amelanchier spp.	NSL	Low	2.3	0.91	0.4	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	57
white mulberry	Morus alba	NSL	FIA	1.1	0.86	0.75	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	58
shagbark hickory	Carya ovata	WSL	Medium	1.1	0.66	0.57	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost			0	59
honeylocust	Gleditsia triacanthos	NSH	Low	1.1	0.61	0.53	No change	Sm. inc.	High	Rare	Fair	Good			2	60
Nuttall oak	Quercus texana	NSH	Medium	1.1	0.49	0.43	Lg. dec.	Lg. dec.	High	Rare	Poor	Poor			0	61
yellow birch	Betula alleghaniensis	NDL	High	1.1	0.34	0.3	No change	No change	Medium	Rare	Poor	Poor			0	62
ashe juniper	Juniperus ashei	NDH	High	0	0	0	New Habitat	New Habitat	NA	Absent	New Habitat	New Habitat			0	63
slash pine	Pinus elliottii	NDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate ++	3	64
longleaf pine	Pinus palustris	NSH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate ++	3	65
Table Mountain pine	Pinus pungens	NSL	Low	0	0	0	Unknown	Unknown	High	Absent	Unknown	Unknown			0	66
striped maple	Acer pensylvanicum	NSL	Medium	0	0	0	Unknown	New Habitat	Medium	Absent	Unknown	New Habitat			3	67
yellow buckeye	Aesculus flava	NSL	Low	0	0	0	Unknown	Unknown	Low	Absent	Unknown	Unknown			0	68
cittamwood/gum bumelia	Sideroxylon lanuginosum ssp	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat			3	69
pecan	Carya illinoensis	NSH	Low	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat	Likely +	Likely +	3	70
black hickory	Carya texana	NDL	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	71
black ash	Fraxinus nigra	WSH	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat			3	72
silverbell	Halesia spp.	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	73
mountain or Fraser magnolia	Magnolia fraseri	NSL	Low	0	0	0	Unknown	Unknown	NA	Absent	Unknown	Unknown			0	74
cherrybark oak; swamp red o	Quercus pagoda	NSL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Likely +	Likely +	3	75
laurel oak	Quercus laurifolia	NDH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Likely +	Likely +	3	76
pin oak	Quercus palustris	NSH	Low	0	0	0	Unknown	Unknown	Low	Absent	Unknown	Unknown			0	77
live oak	Quercus virginiana	NDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate ++	Migrate ++	3	78
bluejack oak	Quercus incana	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +	3	79
cedar elm	Ulmus crassifolia	NDH	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat			0	80