

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
chestnut oak	Quercus prinus	NDH	High	50	663.23	24.38	Lg. dec.	Lg. dec.	High	Abundant	Good	Good			1	1
red maple	Acer rubrum	WDH	High	48.8	469.27	14.05	Sm. dec.	Sm. dec.	High	Common	Fair	Fair			1	2
black cherry	Prunus serotina	WDL	Medium	57.1	343.94	11.48	Sm. dec.	Sm. dec.	Low	Common	Poor	Poor			0	3
northern red oak	Quercus rubra	WDH	Medium	57.1	317.65	11.33	No change	No change	High	Common	Good	Good			1	4
blackgum	Nyssa sylvatica	WDL	Medium	46.4	254.01	10.6	Sm. dec.	Sm. dec.	High	Common	Fair	Fair			1	5
white oak	Quercus alba	WDH	Medium	48.8	198.65	8.48	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	6
white ash	Fraxinus americana	WDL	Medium	52.4	197.19	8.51	No change	No change	Low	Common	Poor	Poor			0	7
black oak	Quercus velutina	WDH	High	45.2	193.3	9.24	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	8
yellow-poplar	Liriodendron tulipifera	WDH	High	33.3	170.26	12.17	Sm. inc.	No change	High	Common	Very Good	Good			1	9
black walnut	Juglans nigra	WDH	Low	23.8	167.68	13.82	Sm. dec.	No change	Medium	Common	Poor	Fair			1	10
black locust	Robinia pseudoacacia	NDH	Low	36.9	154.38	10.35	Sm. dec.	No change	Medium	Common	Poor	Fair			1	11
sweet birch	Betula lenta	NDH	High	23.8	133.31	8.91	Lg. dec.	Lg. dec.	Low	Common	Very Poor	Very Poor			0	12
eastern white pine	Pinus strobus	WDH	High	16.7	130.73	14.32	Lg. dec.	Lg. dec.	Low	Common	Very Poor	Very Poor			0	13
bitternut hickory	Carya cordiformis	WSL	Low	19	125.99	10.66	Sm. dec.	No change	High	Common	Fair	Good	Infill +	Infill ++	1	14
pignut hickory	Carya glabra	WDL	Medium	48.8	113.2	6.33	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	15
ailanthus	Ailanthus altissima	NSL	FIA	34.5	111.82	7.31	Unknown	Unknown	NA	Common	NNIS	NNIS			0	16
sassafras	Sassafras albidum	WSL	Low	44	96.12	3.97	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	17
shagbark hickory	Carya ovata	WSL	Medium	35.7	90.64	6.67	No change	No change	Medium	Common	Fair	Fair	Infill +	Infill +	1	18
hackberry	Celtis occidentalis	WDH	Medium	17.9	65.57	6.64	No change	No change	High	Common	Good	Very Good	Infill ++	Infill ++	1	19
scarlet oak	Quercus coccinea	WDL	Medium	21.4	57.81	4.36	Sm. inc.	No change	Medium	Common	Good	Fair	Infill ++	Infill +	1	20
mockernut hickory	Carya alba	WDL	Medium	29.8	48.08	3.75	Lg. inc.	Lg. inc.	High	Rare	Good	Good			1	21
pitch pine	Pinus rigida	NSH	High	7.1	47.74	6.68	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	22
Norway maple	Acer platanoides	NSL	FIA	17.9	45.86	7.53	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	23
eastern redcedar	Juniperus virginiana	WDH	Medium	10.7	44.67	18.53	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	1	24
Virginia pine	Pinus virginiana	NDH	High	11.9	34.48	7.51	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	1	25
sugar maple	Acer saccharum	WDH	High	8.3	30.33	6.71	Lg. inc.	Lg. inc.	High	Rare	Good	Good	Infill ++	Infill ++	2	26
red mulberry	Morus rubra	NSL	Low	7.1	21.15	6.2	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			2	27
buxelder	Acer negundo	WSH	Low	21.4	20.94	6.63	Lg. inc.	Lg. inc.	High	Rare	Good	Good	Infill ++	Infill ++	1	28
eastern hemlock	Tsuga canadensis	NSH	High	8.3	15.74	4.07	Sm. dec.	Sm. dec.	Low	Rare	Very Poor	Very Poor			2	29
American beech	Fagus grandifolia	WDH	High	9.5	15.62	2.84	Sm. inc.	Sm. inc.	Medium	Rare	Fair	Fair	Infill +	Infill +	2	30
pin oak	Quercus palustris	NSH	Low	7.1	13.99	8.92	No change	No change	Low	Rare	Very Poor	Very Poor			2	31
American basswood	Tilia americana	WSL	Medium	13.1	12.43	4.71	Sm. inc.	No change	Medium	Rare	Fair	Poor	Infill +	Infill +	1	32
silver maple	Acer saccharinum	NSH	Low	9.5	12.31	20.68	No change	No change	High	Rare	Fair	Fair		Infill +	1	33
American elm	Ulmus americana	WDH	Medium	16.7	12.14	3.41	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	1	34
slippery elm	Ulmus rubra	WSL	Low	8.3	9.27	2.3	Sm. inc.	Sm. inc.	Medium	Rare	Fair	Fair	Infill +	Infill +	2	35
white mulberry	Morus alba	NSL	FIA	10.7	8.85	6.75	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	36
common persimmon	Diospyros virginiana	NSL	Low	1.2	7.86	6.6	No change	Lg. inc.	High	Rare	Fair	Good	Infill +		2	37
eastern hophornbeam; ironw	Ostrya virginiana	WSL	Low	10.7	7.25	2.72	Lg. inc.	Lg. inc.	High	Rare	Good	Good	Infill ++	Infill ++	2	38
swamp white oak	Quercus bicolor	NSL	Low	6	6.98	9.03	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	39
sycamore	Platanus occidentalis	NSL	Low	1.2	6.87	5.77	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	40
pawpaw	Asimina triloba	NSL	Low	6	6.31	2.95	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	41
Table Mountain pine	Pinus pungens	NSL	Low	1.2	5.51	4.63	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor			0	42
serviceberry	Amelanchier spp.	NSL	Low	13.1	5.27	1	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	43
American hornbeam; musc	Carpinus caroliniana	WSL	Low	2.4	2.17	0.91	No change	Lg. inc.	Medium	Rare	Poor	Good	Infill +		2	44
chokecherry	Prunus virginiana	NSLX	FIA	1.2	1.9	1.6	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	45
honeylocust	Gleditsia triacanthos	NSH	Low	1.2	1.55	1.3	No change	Lg. inc.	High	Rare	Fair	Good			2	46
flowering dogwood	Cornus florida	WDL	Medium	15.5	1.39	0.64	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	1	47
green ash	Fraxinus pennsylvanica	WSH	Low	4.8	0.55	1.82	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	48
eastern redbud	Cercis canadensis	NSL	Low	9.5	0.5	0.83	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	1	49
paulownia	Paulownia tomentosa	NSL	FIA	4.8	0.5	1.7	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	50
white spruce	Picea glauca	NSL	Medium	4.8	0.45	1.5	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	51
swamp chestnut oak	Quercus michauxii	NSL	Low	4.8	0.42	1.42	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	52
quaking aspen	Populus tremuloides	WDH	High	4.8	0.3	1	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	53

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bear oak; scrub oak	Quercus ilicifolia	NSLX	FIA	4.8	0.2	0.7	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	54
American chestnut	Castanea dentata	NSLX	FIA	4.8	0.11	0.34	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	55
red spruce	Picea rubens	NDH	High	0	0	0	Unknown	Unknown	Low	Absent	Unknown	Unknown			0	56
shortleaf pine	Pinus echinata	WDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate ++	3	57
loblolly pine	Pinus taeda	WDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate ++	Migrate ++	3	58
florida maple	Acer barbatum	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat		Migrate +	3	59
striped maple	Acer pensylvanicum	NSL	Medium	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	60
mountain maple	Acer spicatum	NSL	Low	0	0	0	Unknown	Unknown	High	Absent	Unknown	Unknown			0	61
yellow birch	Betula alleghaniensis	NDL	High	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	62
cittamwood/gum bumelia	Sideroxylon lanuginosum ssp	NSL	Low	0	0	0	Unknown	New Habitat	High	Absent	Unknown	New Habitat			0	63
pecan	Carya illinoensis	NSH	Low	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat			3	64
black hickory	Carya texana	NDL	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			0	65
sugarberry	Celtis laevigata	NDH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	66
American holly	Ilex opaca	NSL	Medium	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0	67
sweetgum	Liquidambar styraciflua	WDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate ++	Migrate ++	3	68
Osage-orange	Maclura pomifera	NDH	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat		Migrate +	3	69
bigleaf magnolia	Magnolia macrophylla	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	70
sourwood	Oxydendrum arboreum	NDL	High	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	71
redbay	Persea borbonia	NSL	Low	0	0	0	Unknown	Unknown	High	Absent	Unknown	Unknown			0	72
pin cherry	Prunus pensylvanica	NSL	Low	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0	73
southern red oak	Quercus falcata	WDL	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate ++	Migrate ++	3	74
cherrybark oak; swamp red o	Quercus pagoda	NSL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +	3	75
overcup oak	Quercus lyrata	NSL	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat			3	76
blackjack oak	Quercus marilandica	NSL	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat		Migrate ++	3	77
chinkapin oak	Quercus muehlenbergii	NSL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	78
water oak	Quercus nigra	WDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate ++	3	79
willow oak	Quercus phellos	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +	3	80
Shumard oak	Quercus shumardii	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat			3	81
post oak	Quercus stellata	WDH	High	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate ++	Migrate ++	3	82
bluejack oak	Quercus incana	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	83
winged elm	Ulmus alata	WDL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate ++	3	84
cedar elm	Ulmus crassifolia	NDH	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat			0	85