

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	67.4	1499.24	23.75	Sm. inc.	Sm. inc.	Medium	Abundant	Very Good	Very Good			1	1
sweetgum	Liquidambar styraciflua	WDH	High	91.9	932.87	10.61	Sm. inc.	Sm. inc.	Medium	Abundant	Very Good	Very Good			1	2
white oak	Quercus alba	WDH	Medium	77.9	683.24	9.26	Sm. dec.	Sm. dec.	High	Abundant	Good	Good			1	3
shortleaf pine	Pinus echinata	WDH	High	58.1	580.92	10.77	Sm. inc.	Sm. inc.	Medium	Abundant	Very Good	Very Good			1	4
yellow-poplar	Liriodendron tulipifera	WDH	High	76.7	483.94	6.64	Lg. dec.	Lg. dec.	High	Common	Fair	Fair			1	5
red maple	Acer rubrum	WDH	High	79.1	447.24	6	No change	No change	High	Common	Good	Good			1	6
southern red oak	Quercus falcata	WDL	Medium	73.3	375	5.42	Sm. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	7
pignut hickory	Carya glabra	WDL	Medium	65.1	330.8	5.41	Lg. dec.	Lg. dec.	Medium	Common	Poor	Poor			0	8
post oak	Quercus stellata	WDH	High	67.4	312.58	4.9	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	9
eastern redcedar	Juniperus virginiana	WDH	Medium	62.8	290.7	4.91	Sm. inc.	Lg. inc.	Medium	Common	Good	Very Good			1	10
chestnut oak	Quercus prinus	NDH	High	20.9	240.06	11.47	Lg. dec.	Lg. dec.	High	Common	Fair	Fair			1	11
black cherry	Prunus serotina	WDL	Medium	77.9	221.07	3	No change	No change	Low	Common	Poor	Poor			0	12
blackgum	Nyssa sylvatica	WDL	Medium	75.6	198.63	2.76	Sm. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	13
winged elm	Ulmus alata	WDL	Medium	62.8	193.3	3.38	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	14
black oak	Quercus velutina	WDH	High	59.3	191.55	3.46	No change	No change	Medium	Common	Fair	Fair			1	15
American beech	Fagus grandifolia	WDH	High	39.5	161.8	4.09	No change	Sm. inc.	Medium	Common	Fair	Good			1	16
green ash	Fraxinus pennsylvanica	WSH	Low	47.7	159.77	3.94	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	17
sourwood	Oxydendrum arboreum	NDL	High	43	131.28	3.05	Lg. dec.	Lg. dec.	High	Common	Fair	Fair			1	18
mockernut hickory	Carya alba	WDL	Medium	53.5	128.7	2.58	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	19
sugarberry	Celtis laevigata	NDH	Medium	20.9	111.1	5.31	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	20
cherrybark oak; swamp red oak	Quercus pagoda	NSL	Medium	29.1	103.02	4.14	Sm. inc.	Lg. inc.	Medium	Common	Good	Very Good			1	21
sugar maple	Acer saccharum	WDH	High	22.1	101.4	4.59	Lg. dec.	Lg. dec.	High	Common	Fair	Fair			1	22
scarlet oak	Quercus coccinea	WDL	Medium	31.4	99.34	3.16	Lg. dec.	Lg. dec.	Medium	Common	Poor	Poor			0	23
flowering dogwood	Cornus florida	WDL	Medium	61.6	98.28	1.59	No change	No change	Medium	Common	Fair	Fair			1	24
eastern hophornbeam; ironwood	Ostrya virginiana	WSL	Low	36	95.48	2.65	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good			1	25
sycamore	Platanus occidentalis	NSL	Low	25.6	94.38	4.31	No change	Sm. inc.	Medium	Common	Fair	Good			1	26
shagbark hickory	Carya ovata	WSL	Medium	26.7	84.37	3.15	Lg. dec.	Lg. dec.	Medium	Common	Poor	Poor			0	27
northern red oak	Quercus rubra	WDH	Medium	34.9	83.52	2.39	Sm. dec.	Sm. dec.	High	Common	Fair	Fair			1	28
boxelder	Acer negundo	WSH	Low	12.8	80.43	6.29	Sm. dec.	No change	High	Common	Fair	Good			1	29
black willow	Salix nigra	NSH	Low	15.1	76.78	6.67	Sm. inc.	Lg. inc.	Low	Common	Fair	Good			1	30
American hornbeam; musclewood	Carpinus caroliniana	WSL	Low	33.7	73.95	2.19	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	31
willow oak	Quercus phellos	NSL	Low	17.4	70.06	4.02	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	32
American elm	Ulmus americana	WDH	Medium	24.4	69.09	2.83	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	33
sassafras	Sassafras albidum	WSL	Low	32.6	54.98	1.69	Sm. inc.	Lg. inc.	Medium	Common	Good	Very Good			1	34
slippery elm	Ulmus rubra	WSL	Low	31.4	54.7	2.03	No change	Sm. inc.	Medium	Common	Fair	Good			1	35
common persimmon	Diospyros virginiana	NSL	Low	39.5	50.27	1.4	Lg. dec.	Sm. dec.	High	Common	Fair	Fair			1	36
white ash	Fraxinus americana	WDL	Medium	26.7	47	2.03	Sm. inc.	Lg. inc.	Low	Rare	Poor	Fair			1	37
water oak	Quercus nigra	WDH	High	24.4	45.45	2.2	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			1	38
Virginia pine	Pinus virginiana	NDH	High	9.3	43.98	4.73	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	1	39
blackjack oak	Quercus marilandica	NSL	Medium	18.6	40.97	2.2	Lg. inc.	Lg. inc.	High	Rare	Good	Good			1	40
river birch	Betula nigra	NSL	Low	5.8	33.4	5.75	No change	Sm. inc.	Medium	Rare	Poor	Fair			1	41
bitternut hickory	Carya cordiformis	WSL	Low	4.7	31.52	6.78	Lg. dec.	Lg. dec.	High	Rare	Poor	Poor			1	42
eastern redbud	Cercis canadensis	NSL	Low	15.1	24.95	1.65	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	43
chinkapin oak	Quercus muehlenbergii	NSL	Medium	11.6	21.13	1.82	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	44
black locust	Robinia pseudoacacia	NDH	Low	4.7	20.72	4.45	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	45
shellbark hickory	Carya laciniosa	NSL	Low	7	14.93	2.14	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	46
water tupelo	Nyssa aquatica	NSH	Medium	5.8	14.91	2.56	Lg. dec.	Lg. dec.	Low	Rare	Very Poor	Very Poor			0	47
honeylocust	Gleditsia triacanthos	NSH	Low	4.7	12.19	2.62	No change	No change	High	Rare	Fair	Fair	Infill +	Infill +	1	48
silver maple	Acer saccharinum	NSH	Low	4.7	12.15	2.61	Sm. dec.	Lg. dec.	High	Rare	Poor	Poor			0	49
black walnut	Juglans nigra	WDH	Low	7	12.13	1.74	No change	Sm. dec.	Medium	Rare	Poor	Very Poor	Infill +		1	50
eastern cottonwood	Populus deltoides	NSH	Low	2.3	11.86	5.1	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	51
Shumard oak	Quercus shumardii	NSL	Low	10.5	10.53	1.65	No change	Sm. inc.	High	Rare	Fair	Good	Infill +	Infill ++	1	52
bald cypress	Taxodium distichum	NSH	Medium	3.5	9.1	2.61	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost			0	53

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American holly	Ilex opaca	NSL	Medium	7	9	1.29	No change	No change	Medium	Rare	Poor	Poor			1	54
florida maple	Acer barbatum	NSL	Low	2.3	7.47	3.21	No change	No change	High	Rare	Fair	Fair		Infill +	2	55
pin oak	Quercus palustris	NSH	Low	1.2	6.83	5.87	Sm. dec.	Sm. dec.	Low	Rare	Very Poor	Very Poor				0 56
red mulberry	Morus rubra	NSL	Low	5.8	6.81	1.17	Sm. dec.	No change	Medium	Rare	Very Poor	Poor				1 57
sweetbay	Magnolia virginiana	NSL	Medium	1.2	6.63	5.7	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++		2 58
overcup oak	Quercus lyrata	NSL	Medium	3.5	6.06	1.74	No change	No change	Low	Rare	Very Poor	Very Poor				2 59
swamp chestnut oak	Quercus michauxii	NSL	Low	2.3	4.48	1.93	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor				2 60
serviceberry	Amelanchier spp.	NSL	Low	8.1	4.16	0.51	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor				0 61
American basswood	Tilia americana	WSL	Medium	1.2	2.91	2.5	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor				0 62
swamp white oak	Quercus bicolor	NSL	Low	1.2	2.88	2.48	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor				0 63
hackberry	Celtis occidentalis	WDH	Medium	2.3	2.83	1.22	Sm. inc.	Sm. inc.	High	Rare	Good	Good	Infill ++	Infill ++		2 64
rock elm	Ulmus thomasii	NSLX	FIA	2.3	2.24	0.96	Unknown	Unknown	Low	Rare	FIA Only	FIA Only				0 65
sand hickory	Carya pallida	NSL	FIA	2.3	2.2	0.94	Unknown	Unknown	NA	Rare	FIA Only	FIA Only				0 66
swamp tupelo	Nyssa biflora	NDH	Medium	1.2	1.13	0.97	Lg. inc.	Lg. inc.	Low	Rare	Fair	Fair				0 67
ailanthus	Ailanthus altissima	NSL	FIA	2.3	1.07	0.46	Unknown	Unknown	NA	Rare	NNIS	NNIS				0 68
white mulberry	Morus alba	NSL	FIA	1.2	0.64	0.55	Unknown	Unknown	NA	Rare	NNIS	NNIS				0 69
slash pine	Pinus elliotii	NDH	High	1.2	0.5	0.43	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good				2 70
ashe juniper	Juniperus ashei	NDH	High	0	0	0	New Habitat	New Habitat	NA	Absent	New Habitat	New Habitat				0 71
longleaf pine	Pinus palustris	NSH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate +		3 72
striped maple	Acer pensylvanicum	NSL	Medium	0	0	0	Unknown	New Habitat	Medium	Absent	Unknown	New Habitat				3 73
Ohio buckeye	Aesculus glabra	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown				0 74
yellow buckeye	Aesculus flava	NSL	Low	0	0	0	Unknown	Unknown	Low	Absent	Unknown	Unknown				0 75
pawpaw	Asimina triloba	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown				0 76
sweet birch	Betula lenta	NDH	High	0	0	0	Unknown	Unknown	Low	Absent	Unknown	Unknown				0 77
cittamwood/gum bumelia	Sideroxylon lanuginosum ssp	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat		Migrate ++		3 78
pecan	Carya illinoensis	NSH	Low	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat	Likely +	Likely +		3 79
black hickory	Carya texana	NDL	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate +		3 80
black ash	Fraxinus nigra	WSH	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat				3 81
silverbell	Halesia spp.	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown				0 82
Osage-orange	Maclura pomifera	NDH	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat		Migrate ++		3 83
cucumbertree	Magnolia acuminata	NSL	Low	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown				0 84
southern magnolia	Magnolia grandiflora	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat				3 85
water elm	Planera aquatica	NSL	Low	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown				0 86
laurel oak	Quercus laurifolia	NDH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Likely +	Likely +		3 87
live oak	Quercus virginiana	NDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate ++		3 88
bluejack oak	Quercus incana	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +		3 89
cedar elm	Ulmus crassifolia	NDH	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat		Migrate ++		3 90