

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	92.8	2566.94	28.2	Sm. inc.	Sm. inc.	Medium	Abundant	Very Good	Very Good			1	1
sweetgum	Liquidambar styraciflua	WDH	High	95.3	1037.19	11.27	Sm. inc.	Sm. inc.	Medium	Abundant	Very Good	Very Good			1	2
white oak	Quercus alba	WDH	Medium	85.8	938.6	11.43	Lg. dec.	Lg. dec.	High	Abundant	Good	Good			1	3
yellow-poplar	Liriodendron tulipifera	WDH	High	82.1	907.38	10.8	Lg. dec.	Lg. dec.	High	Abundant	Good	Good			1	4
red maple	Acer rubrum	WDH	High	82	464.7	5.48	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good			1	5
Virginia pine	Pinus virginiana	NDH	High	52.6	451.77	8.5	Lg. dec.	Lg. dec.	Medium	Common	Poor	Poor			0	6
American holly	Ilex opaca	NSL	Medium	83.4	299.89	3.71	Sm. dec.	Sm. dec.	Medium	Common	Poor	Poor			0	7
southern red oak	Quercus falcata	WDL	Medium	67.8	299.65	4.35	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good			1	8
American beech	Fagus grandifolia	WDH	High	53.4	271.56	4.96	Sm. dec.	Sm. dec.	Medium	Common	Poor	Poor			0	9
mockernut hickory	Carya alba	WDL	Medium	52.9	218.03	4.1	No change	No change	High	Common	Good	Good			1	10
scarlet oak	Quercus coccinea	WDL	Medium	57.4	213.27	4.08	Lg. dec.	Lg. dec.	Medium	Common	Poor	Poor			0	11
blackgum	Nyssa sylvatica	WDL	Medium	75.8	190.72	2.69	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good			1	12
black oak	Quercus velutina	WDH	High	57.2	142.98	2.63	No change	No change	Medium	Common	Fair	Fair			1	13
green ash	Fraxinus pennsylvanica	WSH	Low	26.1	126.59	4.74	Sm. inc.	Lg. inc.	Medium	Common	Good	Very Good			1	14
pignut hickory	Carya glabra	WDL	Medium	52.9	102.52	1.93	Lg. dec.	Lg. dec.	Medium	Common	Poor	Poor			0	15
willow oak	Quercus phellos	NSL	Low	42.9	93.25	2.13	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	16
swamp tupelo	Nyssa biflora	NDH	Medium	17.2	92.34	4.38	Lg. inc.	Lg. inc.	Low	Common	Good	Good			1	17
river birch	Betula nigra	NSL	Low	21.4	87.7	4.01	Sm. inc.	Lg. inc.	Medium	Common	Good	Very Good			1	18
chestnut oak	Quercus prinus	NDH	High	21.6	85.39	5.26	Lg. dec.	Lg. dec.	High	Common	Fair	Fair			1	19
eastern redcedar	Juniperus virginiana	WDH	Medium	43.3	82.27	1.89	No change	Sm. inc.	Medium	Common	Fair	Good			1	20
northern red oak	Quercus rubra	WDH	Medium	37	78.86	2.35	Lg. dec.	Lg. dec.	High	Common	Fair	Fair			1	21
American hornbeam; muscle	Carpinus caroliniana	WSL	Low	36.9	77.78	2.08	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	22
water tupelo	Nyssa aquatica	NSH	Medium	3.6	68.63	18.99	No change	No change	Low	Common	Poor	Poor	Infill +	Infill +	2	23
water oak	Quercus nigra	WDH	High	22.8	50.73	2.19	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good	Infill ++	Infill ++	1	24
black cherry	Prunus serotina	WDL	Medium	25.1	43.61	1.71	Lg. inc.	Lg. inc.	Low	Rare	Fair	Fair			1	25
slippery elm	Ulmus rubra	WSL	Low	12.7	42.29	3.06	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	26
post oak	Quercus stellata	WDH	High	21.7	41.67	1.92	Lg. inc.	Lg. inc.	High	Rare	Good	Good	Infill ++	Infill ++	1	27
flowering dogwood	Cornus florida	WDL	Medium	43.1	40.85	1.79	Sm. inc.	Lg. inc.	Medium	Rare	Fair	Good			1	28
white ash	Fraxinus americana	WDL	Medium	15.7	35.43	2.26	Lg. dec.	Lg. dec.	Low	Rare	Very Poor	Very Poor			0	29
bald cypress	Taxodium distichum	NSH	Medium	2.2	34.61	12.66	Sm. inc.	Sm. inc.	Medium	Rare	Fair	Fair	Infill +	Infill +	2	30
winged elm	Ulmus alata	WDL	Medium	18.8	34.19	1.73	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			1	31
shortleaf pine	Pinus echinata	WDH	High	15.7	31.67	3.13	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			1	32
black walnut	Juglans nigra	WDH	Low	5.7	24.53	3.58	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	33
swamp chestnut oak	Quercus michauxii	NSL	Low	7.1	20.06	2.73	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	1	34
sassafras	Sassafras albidum	WSL	Low	19.2	19.48	1.26	Very Lg. dec.	Lg. dec.	Medium	Rare	Lost	Very Poor			0	35
pawpaw	Asimina triloba	NSL	Low	5.7	18	2.49	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	36
sourwood	Oxydendrum arboreum	NDL	High	9.6	17.3	1.79	No change	Sm. dec.	High	Rare	Fair	Poor	Infill +		1	37
ailanthus	Ailanthus altissima	NSL	FIA	4.8	16.81	3.49	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	38
hackberry	Celtis occidentalis	WDH	Medium	4.8	16.72	3.47	Lg. dec.	Lg. dec.	High	Rare	Poor	Poor			1	39
American elm	Ulmus americana	WDH	Medium	11.7	16.38	1.34	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	1	40
common persimmon	Diospyros virginiana	NSL	Low	10.8	15.93	1.46	Lg. dec.	Lg. dec.	High	Rare	Poor	Poor			1	41
black locust	Robinia pseudoacacia	NDH	Low	12	15.72	1.3	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost			0	42
sycamore	Platanus occidentalis	NSL	Low	3.6	14.31	3.96	Sm. inc.	Lg. inc.	Medium	Rare	Fair	Good	Infill +	Infill ++	1	43
pin oak	Quercus palustris	NSH	Low	7.2	13.75	1.9	Lg. dec.	Lg. dec.	Low	Rare	Very Poor	Very Poor			0	44
bigtooth aspen	Populus grandidentata	NSL	Medium	9.6	12.93	1.34	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	45
boxelder	Acer negundo	WSH	Low	3.6	11.52	3.19	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor	Infill +	Infill +	1	46
sweetbay	Magnolia virginiana	NSL	Medium	4.8	10.32	2.14	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	1	47
eastern cottonwood	Populus deltoides	NSH	Low	1.2	8.61	6.86	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	48
shagbark hickory	Carya ovata	WSL	Medium	3.6	7.84	2.17	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	49
pumpkin ash	Fraxinus profunda	NSH	FIA	1	6.35	4.54	Unknown	Unknown	NA	Rare	FIA Only	FIA Only			0	50
bitternut hickory	Carya cordiformis	WSL	Low	4.8	5.72	1.17	Very Lg. dec.	Very Lg. dec.	High	Rare	Lost	Lost			0	51
eastern redbud	Cercis canadensis	NSL	Low	4.8	3.71	0.77	Lg. dec.	Very Lg. dec.	Medium	Rare	Very Poor	Lost			0	52
white mulberry	Morus alba	NSL	FIA	1.2	3.61	3	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	53

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honeylocust	Gleditsia triacanthos	NSH	Low	2.4	2.81	1.16	Sm. dec.	No change	High	Rare	Poor	Fair		Infill +		2	54		
Carolina ash	Fraxinus caroliniana	NSL	FIA	0.8	2.05	1.2	Unknown	Unknown	NA	Rare	FIA Only	FIA Only					0	55	
overcup oak	Quercus lyrata	NSL	Medium	1.2	1.54	1.28	Lg. inc.	Lg. inc.	Low	Rare	Fair	Fair	Infill +	Infill +			2	56	
eastern hophornbeam; ironw	Ostrya virginiana	WSL	Low	1.2	1.45	1.2	Lg. inc.	Lg. inc.	High	Rare	Good	Good						2	57
cherrybark oak; swamp red o	Quercus pagoda	NSL	Medium	2.4	1.28	0.53	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good						2	58
red mulberry	Morus rubra	NSL	Low	1.2	1.02	0.85	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost						0	59
paulownia	Paulownia tomentosa	NSL	FIA	1.2	0.57	0.47	Unknown	Unknown	NA	Rare	NNIS	NNIS						0	60
serviceberry	Amelanchier spp.	NSL	Low	1.2	0.36	0.3	Sm. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor						0	61
sweet birch	Betula lenta	NDH	High	1.2	0.36	0.3	Lg. dec.	Lg. dec.	Low	Rare	Very Poor	Very Poor						0	62
laurel oak	Quercus laurifolia	NDH	Medium	1.2	0.34	0.28	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good						2	63
slash pine	Pinus elliottii	NDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		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
pond pine	Pinus serotina	NSH	Medium	0	0	0	Unknown	Unknown	Low	Modeled	Unknown	Unknown						0	66
florida maple	Acer barbatum	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Likely +	Likely +				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						0	69
water hickory	Carya aquatica	NSL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +				3	70
pecan	Carya illinoensis	NSH	Low	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat		Migrate +				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 +	Migrate +				3	73
black ash	Fraxinus nigra	WSH	Medium	0	0	0	Unknown	Unknown	Low	Absent	Unknown	Unknown						0	74
loblolly-bay	Gordonia lasianthus	NSH	Medium	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown						0	75
cucumber tree	Magnolia acuminata	NSL	Low	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown						0	76
redbay	Persea borbonia	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate ++					3	77
water elm	Planera aquatica	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat						3	78
pin cherry	Prunus pensylvanica	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown						0	79
shingle oak	Quercus imbricaria	NDH	Medium	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown						0	80
blackjack oak	Quercus marilandica	NSL	Medium	0	0	0	Unknown	New Habitat	High	Absent	Unknown	New Habitat		Likely +				3	81
Shumard oak	Quercus shumardii	NSL	Low	0	0	0	Unknown	Unknown	High	Modeled	Unknown	Unknown						0	82
live oak	Quercus virginiana	NDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat						3	83
bluejack oak	Quercus incana	NSL	Low	0	0	0	Unknown	New Habitat	Medium	Absent	Unknown	New Habitat						3	84
black willow	Salix nigra	NSH	Low	0	0	0	New Habitat	New Habitat	Low	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						0	86