

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
white oak	Quercus alba	WDH	Medium	84.3	1093.33	17.62	Sm. dec.	Sm. dec.	High	Abundant	Good	Good			1	1
black oak	Quercus velutina	WDH	High	89.2	1053.46	17.32	No change	Sm. dec.	Medium	Abundant	Good	Fair			1	2
post oak	Quercus stellata	WDH	High	80.7	712.55	12.34	Sm. inc.	Sm. inc.	High	Abundant	Very Good	Very Good			1	3
eastern redcedar	Juniperus virginiana	WDH	Medium	55.4	480.53	11.08	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	4
northern red oak	Quercus rubra	WDH	Medium	77.1	401.8	7.13	Sm. dec.	Sm. dec.	High	Common	Fair	Fair			1	5
shortleaf pine	Pinus echinata	WDH	High	19.3	270.19	14.02	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	6
black hickory	Carya texana	NDL	High	69.9	262.95	4.93	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	7
mockernut hickory	Carya alba	WDL	Medium	67.5	194.55	3.92	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good			1	8
sassafras	Sassafras albidum	WSL	Low	57.8	177.94	5.15	Sm. dec.	Sm. dec.	Medium	Common	Poor	Poor			0	9
black walnut	Juglans nigra	WDH	Low	59	168.17	4.69	No change	Sm. inc.	Medium	Common	Fair	Good			1	10
blackgum	Nyssa sylvatica	WDL	Medium	50.6	146.52	3.94	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good			1	11
American elm	Ulmus americana	WDH	Medium	55.4	146.27	4.12	Sm. inc.	Lg. inc.	Medium	Common	Good	Very Good			1	12
chinkapin oak	Quercus muehlenbergii	NSL	Medium	51.8	143.42	3.69	No change	No change	Medium	Common	Fair	Fair			1	13
flowering dogwood	Cornus florida	WDL	Medium	73.5	141.41	3.01	Sm. dec.	No change	Medium	Common	Poor	Fair			1	14
winged elm	Ulmus alata	WDL	Medium	57.8	135.48	2.99	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	15
slippery elm	Ulmus rubra	WSL	Low	59	114	3	No change	Sm. inc.	Medium	Common	Fair	Good			1	16
blackjack oak	Quercus marilandica	NSL	Medium	44.6	112.23	3.88	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	17
sycamore	Platanus occidentalis	NSL	Low	30.1	96.99	5.35	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	18
bitternut hickory	Carya cordiformis	WSL	Low	53	96.25	3.3	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good			1	19
white ash	Fraxinus americana	WDL	Medium	45.8	89.55	2.99	Sm. inc.	Lg. inc.	Low	Common	Fair	Good			1	20
common persimmon	Diospyros virginiana	NSL	Low	15.7	75.94	4.85	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	21
florida maple	Acer barbatum	NSL	Low	14.5	67.54	6.25	Lg. dec.	Lg. dec.	High	Common	Fair	Fair			1	22
boxelder	Acer negundo	WSH	Low	14.5	61.93	5.81	No change	Lg. inc.	High	Common	Good	Very Good			1	23
black cherry	Prunus serotina	WDL	Medium	43.4	61.6	2.59	Lg. inc.	Lg. inc.	Low	Common	Good	Good			1	24
red maple	Acer rubrum	WDH	High	32.5	56.75	2.9	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	25
red mulberry	Morus rubra	NSL	Low	43.4	52.87	2.16	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	26
hackberry	Celtis occidentalis	WDH	Medium	38.6	51.94	2.46	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	27
black locust	Robinia pseudoacacia	NDH	Low	8.4	47.13	5.59	No change	No change	Medium	Rare	Poor	Poor			1	28
silver maple	Acer saccharinum	NSH	Low	1.2	46.08	38.25	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor			0	29
sugar maple	Acer saccharum	WDH	High	16.9	44.88	3.69	Lg. dec.	Sm. dec.	High	Rare	Poor	Poor	Infill +		1	30
blue ash	Fraxinus quadrangulata	NSL	Low	8.4	39.07	8.51	Lg. dec.	Lg. dec.	Low	Rare	Very Poor	Very Poor			0	31
shagbark hickory	Carya ovata	WSL	Medium	19.3	32.84	2.29	No change	No change	Medium	Rare	Poor	Poor			1	32
eastern redbud	Cercis canadensis	NSL	Low	28.9	30.29	1.47	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			1	33
southern red oak	Quercus falcata	WDL	Medium	10.8	24.92	4.84	Lg. inc.	Lg. inc.	High	Rare	Good	Good			1	34
sweetgum	Liquidambar styraciflua	WDH	High	7.2	19.3	5.75	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	2	35
green ash	Fraxinus pennsylvanica	WSH	Low	9.6	17.92	3.09	Sm. inc.	Sm. inc.	Medium	Rare	Fair	Fair	Infill +	Infill +	1	36
Osage-orange	Maclura pomifera	NDH	Medium	8.4	16.43	7.51	No change	No change	High	Rare	Fair	Fair	Infill +	Infill +	1	37
serviceberry	Amelanchier spp.	NSL	Low	21.7	16.07	0.91	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	38
eastern hophornbeam; ironw	Ostrya virginiana	WSL	Low	20.5	13.37	1.11	Lg. inc.	Lg. inc.	High	Rare	Good	Good			1	39
honeylocust	Gleditsia triacanthos	NSH	Low	12	12.88	1.6	Lg. inc.	Lg. inc.	High	Rare	Good	Good	Infill ++	Infill ++	1	40
American basswood	Tilia americana	WSL	Medium	20.5	12.77	1.75	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	41
Shumard oak	Quercus shumardii	NSL	Low	7.2	11.54	1.6	No change	Sm. inc.	High	Rare	Fair	Good	Infill +	Infill ++	1	42
pignut hickory	Carya glabra	WDL	Medium	7.2	10.75	4.18	No change	Sm. inc.	Medium	Rare	Poor	Fair	Infill +	Infill +	2	43
ashe juniper	Juniperus ashei	NDH	High	1.2	8.49	7.05	Lg. inc.	Lg. inc.	NA	Rare	Unknown	Unknown			0	44
loblolly pine	Pinus taeda	WDH	High	1.2	6.11	5.07	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	2	45
sugarberry	Celtis laevigata	NDH	Medium	4.8	5.17	1.07	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	2	46
paulownia	Paulownia tomentosa	NSL	FIA	1.2	4.34	3.6	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	47
ailanthus	Ailanthus altissima	NSL	FIA	7.2	2.95	1.2	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	48
cedar elm	Ulmus crassifolia	NDH	Medium	1.2	2.95	2.45	Lg. inc.	Lg. inc.	Low	Rare	Fair	Fair	Infill +	Infill +	2	49
wild plum	Prunus americana	NSLX	FIA	1.2	2.73	2.27	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	50
white mulberry	Morus alba	NSL	FIA	1.2	2.65	2.2	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	51
butternut	Juglans cinerea	NSLX	FIA	2.4	2.33	0.97	Unknown	Unknown	Low	Rare	FIA Only	FIA Only			0	52
Ohio buckeye	Aesculus glabra	NSL	Low	1.2	1.48	1.23	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	53

Common Name	Scientific Name	Range	MR	%Cell	FIAsum	FIAiv	ChngCl45	ChngCl85	Adap	Abund	Capabil45	Capabil85	SHIFT45	SHIFT85	SSO	N
overcup oak	Quercus lyrata	NSL	Medium	1.2	1.45	1.2	Very Lg. dec.	Very Lg. dec.	Low	Rare	Lost	Lost			0	54
cittamwood/gum bumelia	Sideroxylon lanuginosum ssp	NSL	Low	3.6	1.25	0.35	Lg. inc.	Lg. inc.	High	Rare	Good	Good	Infill ++	Infill ++	2	55
pawpaw	Asimina triloba	NSL	Low	1.2	1.08	0.9	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost			0	56
yellow-poplar	Liriodendron tulipifera	WDH	High	4.8	0.92	3.02	Very Lg. dec.	Lg. inc.	High	Rare	Lost	Good			2	57
American hornbeam; muscle	Carpinus caroliniana	WSL	Low	1.2	0.51	0.42	Lg. dec.	Lg. inc.	Medium	Rare	Very Poor	Good			2	58
shellbark hickory	Carya laciniosa	NSL	Low	4.8	0.18	0.62	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	59
cherrybark oak; swamp red o	Quercus pagoda	NSL	Medium	4.8	0.14	0.47	Lg. dec.	Sm. inc.	Medium	Rare	Very Poor	Fair			0	60
longleaf pine	Pinus palustris	NSH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	61
Virginia pine	Pinus virginiana	NDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	62
striped maple	Acer pensylvanicum	NSL	Medium	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	63
pecan	Carya illinoensis	NSH	Low	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat	Likely +	Likely +	3	64
black ash	Fraxinus nigra	WSH	Medium	0	0	0	Unknown	Unknown	Low	Absent	Unknown	Unknown			0	65
bigleaf magnolia	Magnolia macrophylla	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	66
sourwood	Oxydendrum arboreum	NDL	High	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat		Migrate +	3	67
scarlet oak	Quercus coccinea	WDL	Medium	0	0	0	Unknown	New Habitat	Medium	Absent	Unknown	New Habitat		Likely +	3	68
bur oak	Quercus macrocarpa	NDH	Medium	0	0	0	Unknown	Unknown	High	Modeled	Unknown	Unknown			0	69
swamp chestnut oak	Quercus michauxii	NSL	Low	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0	70
water oak	Quercus nigra	WDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate ++	3	71
chestnut oak	Quercus prinus	NDH	High	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat			3	72
live oak	Quercus virginiana	NDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate ++	3	73
black willow	Salix nigra	NSH	Low	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat		Migrate +	3	74