

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	97.7	2643.29	27.06	Lg. dec.	Lg. dec.	High	Abundant	Good	Good			1	1
black oak	Quercus velutina	WDH	High	98.8	1500.83	15.19	Sm. dec.	Sm. dec.	Medium	Abundant	Fair	Fair			0	2
shortleaf pine	Pinus echinata	WDH	High	79.1	1108.21	14.02	No change	Sm. inc.	Medium	Abundant	Good	Very Good			1	3
scarlet oak	Quercus coccinea	WDL	Medium	70.9	954.06	13.45	Lg. dec.	Lg. dec.	Medium	Abundant	Fair	Fair			0	4
post oak	Quercus stellata	WDH	High	86	943.88	10.97	Sm. inc.	Sm. inc.	High	Abundant	Very Good	Very Good			1	5
black hickory	Carya texana	NDL	High	83.7	386.12	4.61	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	6
mockernut hickory	Carya alba	WDL	Medium	84.9	342.81	4.04	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good			1	7
blackgum	Nyssa sylvatica	WDL	Medium	80.2	266.37	3.32	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good			1	8
pignut hickory	Carya glabra	WDL	Medium	46.5	233.67	5.02	Sm. dec.	Sm. dec.	Medium	Common	Poor	Poor			0	9
flowering dogwood	Cornus florida	WDL	Medium	72.1	158.51	2.2	No change	No change	Medium	Common	Fair	Fair			1	10
blackjack oak	Quercus marilandica	NSL	Medium	39.5	154.28	3.9	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	11
eastern redcedar	Juniperus virginiana	WDH	Medium	34.9	142.36	4.08	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	12
northern red oak	Quercus rubra	WDH	Medium	26.7	108.07	4.04	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	13
red maple	Acer rubrum	WDH	High	48.8	95.72	1.96	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	14
black walnut	Juglans nigra	WDH	Low	36	91.07	2.53	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	15
chinkapin oak	Quercus muehlenbergii	NSL	Medium	30.2	85.74	2.84	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	16
black cherry	Prunus serotina	WDL	Medium	46.5	77.28	1.66	Lg. inc.	Lg. inc.	Low	Common	Good	Good			1	17
American elm	Ulmus americana	WDH	Medium	31.4	67.92	2.16	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	18
sycamore	Platanus occidentalis	NSL	Low	16.3	65.42	4.02	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	19
sassafras	Sassafras albidum	WSL	Low	47.7	62.87	1.32	Lg. dec.	Lg. dec.	Medium	Common	Poor	Poor			0	20
sugar maple	Acer saccharum	WDH	High	18.6	55.22	2.97	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good	Infill ++	Infill ++	1	21
slippery elm	Ulmus rubra	WSL	Low	26.7	52.64	1.97	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	22
bitternut hickory	Carya cordiformis	WSL	Low	23.3	41.17	1.77	Lg. inc.	Lg. inc.	High	Rare	Good	Good			1	23
southern red oak	Quercus falcata	WDL	Medium	15.1	36.52	2.42	Lg. inc.	Lg. inc.	High	Rare	Good	Good	Infill ++	Infill ++	1	24
white ash	Fraxinus americana	WDL	Medium	29.1	34.67	1.19	Lg. inc.	Lg. inc.	Low	Rare	Fair	Fair			1	25
winged elm	Ulmus alata	WDL	Medium	24.4	30.66	1.26	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			1	26
pin oak	Quercus palustris	NSH	Low	1.2	23.34	20.07	Sm. dec.	Sm. dec.	Low	Rare	Very Poor	Very Poor			2	27
green ash	Fraxinus pennsylvanica	WSH	Low	14	19.55	1.4	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	1	28
eastern redbud	Cercis canadensis	NSL	Low	15.1	18.76	1.24	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			1	29
honeylocust	Gleditsia triacanthos	NSH	Low	5.8	18.2	3.13	Sm. inc.	Lg. inc.	High	Rare	Good	Good			1	30
shingle oak	Quercus imbricaria	NDH	Medium	4.7	17.7	3.81	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	31
red mulberry	Morus rubra	NSL	Low	16.3	17.33	1.06	No change	Sm. inc.	Medium	Rare	Poor	Fair			1	32
common persimmon	Diospyros virginiana	NSL	Low	16.3	15.67	0.96	Lg. inc.	Lg. inc.	High	Rare	Good	Good			1	33
boxelder	Acer negundo	WSH	Low	7	11.84	1.7	No change	Lg. inc.	High	Rare	Fair	Good			1	34
Shumard oak	Quercus shumardii	NSL	Low	8.1	11.31	1.39	No change	No change	High	Rare	Fair	Fair		Infill +	1	35
river birch	Betula nigra	NSL	Low	2.3	9.74	4.19	No change	No change	Medium	Rare	Poor	Poor		Infill +	2	36
hackberry	Celtis occidentalis	WDH	Medium	11.6	9.62	0.83	Lg. inc.	Lg. inc.	High	Rare	Good	Good			1	37
wild plum	Prunus americana	NSLX	FIA	3.5	9.02	2.59	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	38
eastern hophornbeam; ironw	Ostrya virginiana	WSL	Low	9.3	8.7	0.94	Sm. inc.	Lg. inc.	High	Rare	Good	Good			1	39
serviceberry	Amelanchier spp.	NSL	Low	8.1	7.17	0.88	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	40
American basswood	Tilia americana	WSL	Medium	1.2	5.29	4.55	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	41
Osage-orange	Maclura pomifera	NDH	Medium	1.2	5	4.3	Sm. dec.	Lg. inc.	High	Rare	Poor	Good			2	42
American hornbeam; musc	Carpinus caroliniana	WSL	Low	8.1	4.8	0.59	Sm. inc.	Lg. inc.	Medium	Rare	Fair	Good			1	43
cittamwood/gum bumelia	Sideroxylon lanuginosum ssp	NSL	Low	3.5	4.71	1.35	Lg. inc.	Lg. inc.	High	Rare	Good	Good		Infill ++	1	44
blue ash	Fraxinus quadrangulata	NSL	Low	2.3	3.88	1.67	Sm. dec.	Sm. dec.	Low	Rare	Very Poor	Very Poor			0	45
butternut	Juglans cinerea	NSLX	FIA	2.3	3.88	1.67	Unknown	Unknown	Low	Rare	FIA Only	FIA Only			0	46
shagbark hickory	Carya ovata	WSL	Medium	3.5	3.77	1.08	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	2	47
ailanthus	Ailanthus altissima	NSL	FIA	1.2	2.91	2.5	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	48
pawpaw	Asimina triloba	NSL	Low	3.5	2.87	0.82	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost			0	49
silver maple	Acer saccharinum	NSH	Low	1.2	2.36	2.03	Sm. dec.	Very Lg. dec.	High	Rare	Poor	Lost			0	50
sugarberry	Celtis laevigata	NDH	Medium	1.2	1.66	1.43	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	51
sweetgum	Liquidambar styraciflua	WDH	High	1.2	1.65	1.42	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	52
black willow	Salix nigra	NSH	Low	1.2	1.4	1.2	Sm. inc.	Lg. inc.	Low	Rare	Poor	Fair		Infill +	2	53

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bur oak	Quercus macrocarpa	NDH	Medium	1.2	0.49	0.42	Lg. dec.	Lg. dec.	High	Rare	Poor	Poor			0	54
water tupelo	Nyssa aquatica	NSH	Medium	1.2	0.44	0.38	Lg. dec.	Lg. dec.	Low	Rare	Very Poor	Very Poor			0	55
swamp chestnut oak	Quercus michauxii	NSL	Low	1.2	0.37	0.32	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	56
ashe juniper	Juniperus ashei	NDH	High	0	0	0	New Habitat	New Habitat	NA	Absent	New Habitat	New Habitat			0	57
longleaf pine	Pinus palustris	NSH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	58
loblolly pine	Pinus taeda	WDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate ++	Migrate ++	3	59
Ohio buckeye	Aesculus glabra	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	60
pecan	Carya illinoensis	NSH	Low	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat		Migrate +	3	61
shellbark hickory	Carya laciniosa	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	62
American beech	Fagus grandifolia	WDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	63
black ash	Fraxinus nigra	WSH	Medium	0	0	0	Unknown	New Habitat	Low	Absent	Unknown	New Habitat			3	64
yellow-poplar	Liriodendron tulipifera	WDH	High	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate +		3	65
sourwood	Oxydendrum arboreum	NDL	High	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat			3	66
cherrybark oak; swamp red o	Quercus pagoda	NSL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate ++	3	67
water oak	Quercus nigra	WDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate ++	3	68
chestnut oak	Quercus prinus	NDH	High	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat			3	69
live oak	Quercus virginiana	NDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			0	70
black locust	Robinia pseudoacacia	NDH	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	71
cedar elm	Ulmus crassifolia	NDH	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat		Migrate ++	3	72