

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	79.6	3686.56	34.25	No change	No change	Medium	Abundant	Good	Good			1	1
pond pine	Pinus serotina	NSH	Medium	49.2	1274.12	22.97	Sm. dec.	Sm. dec.	Low	Abundant	Fair	Fair			0	2
red maple	Acer rubrum	WDH	High	79.3	983.35	10.48	No change	No change	High	Abundant	Very Good	Very Good			1	3
sweetgum	Liquidambar styraciflua	WDH	High	74	915.71	10.55	No change	No change	Medium	Abundant	Good	Good			1	4
swamp tupelo	Nyssa biflora	NDH	Medium	52.8	381.34	5.5	Sm. inc.	Sm. inc.	Low	Common	Fair	Fair			1	5
redbay	Persea borbonia	NSL	Low	69.7	348.89	3.7	No change	Sm. dec.	High	Common	Good	Fair			1	6
loblolly-bay	Gordonia lasianthus	NSH	Medium	26.2	280.57	8.9	Sm. dec.	Sm. dec.	Medium	Common	Poor	Poor			0	7
green ash	Fraxinus pennsylvanica	WSH	Low	19.7	168.22	8.54	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	8
yellow-poplar	Liriodendron tulipifera	WDH	High	26.7	158.27	4.92	Sm. dec.	Sm. dec.	High	Common	Fair	Fair			1	9
pond cypress	Taxodium ascendens	NSH	Medium	7.5	157.32	17.25	No change	No change	Medium	Common	Fair	Fair	Infill +	Infill +	2	10
water oak	Quercus nigra	WDH	High	42.7	151.66	2.76	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	11
sweetbay	Magnolia virginiana	NSL	Medium	44.5	149.77	2.63	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	12
bald cypress	Taxodium distichum	NSH	Medium	10.6	117.25	5.94	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good	Infill ++	Infill ++	1	13
longleaf pine	Pinus palustris	NSH	Medium	13.6	95.4	6.91	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good	Infill ++	Infill ++	1	14
Atlantic white-cedar	Chamaecyparis thyoides	NSH	Low	9.8	92.7	7.83	Sm. dec.	Sm. dec.	Low	Common	Poor	Poor	Infill +	Infill +	0	15
American holly	Ilex opaca	NSL	Medium	31.8	92.7	2.37	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	16
slash pine	Pinus elliotii	NDH	High	3.1	82.01	22.06	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good	Infill ++	Infill ++	2	17
pumpkin ash	Fraxinus profunda	NSH	FIA	8	79.96	8.36	Unknown	Unknown	NA	Common	FIA Only	FIA Only			0	18
southern red oak	Quercus falcata	WDL	Medium	16.2	72.89	3.02	Sm. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	19
laurel oak	Quercus laurifolia	NDH	Medium	16.8	70.03	2.39	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	20
American hornbeam; muscle	Carpinus caroliniana	WSL	Low	16.2	61.32	3.08	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	21
eastern redcedar	Juniperus virginiana	WDH	Medium	4.3	46.73	6.4	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	22
blackgum	Nyssa sylvatica	WDL	Medium	18.5	43.46	2.19	Lg. inc.	Lg. inc.	High	Rare	Good	Good			1	23
black willow	Salix nigra	NSH	Low	7.1	41.61	5.65	No change	No change	Low	Rare	Very Poor	Very Poor			0	24
white oak	Quercus alba	WDH	Medium	12.1	41.55	2.77	Sm. inc.	Lg. inc.	High	Rare	Good	Good	Infill ++	Infill ++	1	25
American elm	Ulmus americana	WDH	Medium	14.2	39.77	2.65	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	1	26
sourwood	Oxydendrum arboreum	NDL	High	16.5	39.15	1.87	Lg. dec.	Lg. dec.	High	Rare	Poor	Poor			1	27
slippery elm	Ulmus rubra	WSL	Low	9.2	31.07	3.13	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	28
flowering dogwood	Cornus florida	WDL	Medium	10.6	24.26	1.56	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	29
willow oak	Quercus phellos	NSL	Low	11.8	21.45	1.88	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	1	30
swamp chestnut oak	Quercus michauxii	NSL	Low	11.4	19.82	1.48	No change	Lg. inc.	Medium	Rare	Poor	Good	Infill +	Infill ++	1	31
live oak	Quercus virginiana	NDH	High	2.1	17.67	3.07	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	32
mockernut hickory	Carya alba	WDL	Medium	3.4	15.88	1.79	No change	Sm. inc.	High	Rare	Fair	Good	Infill +	Infill ++	2	33
post oak	Quercus stellata	WDH	High	9.5	14.34	1.64	Lg. dec.	Lg. inc.	High	Rare	Poor	Good	Infill +	Infill ++	2	34
Virginia pine	Pinus virginiana	NDH	High	2.2	11.58	4.21	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	35
Carolina ash	Fraxinus caroliniana	NSL	FIA	2.4	9.54	3.89	Unknown	Unknown	NA	Rare	FIA Only	FIA Only			0	36
pecan	Carya illinoensis	NSH	Low	1.2	8.31	6.8	Sm. dec.	Lg. inc.	Low	Rare	Very Poor	Fair		Infill +	2	37
cherrybark oak; swamp red o	Quercus pagoda	NSL	Medium	3.5	5.6	1.47	Sm. inc.	Lg. inc.	Medium	Rare	Fair	Good		Infill ++	2	38
black oak	Quercus velutina	WDH	High	1.9	4.92	1.18	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	39
shortleaf pine	Pinus echinata	WDH	High	1.2	4.79	3.9	Sm. dec.	Lg. inc.	Medium	Rare	Very Poor	Good			2	40
river birch	Betula nigra	NSL	Low	1.2	3.58	2.86	No change	Sm. inc.	Medium	Rare	Poor	Fair		Infill +	2	41
blackjack oak	Quercus marilandica	NSL	Medium	2.5	3.4	0.76	Very Lg. dec.	Very Lg. dec.	High	Rare	Lost	Lost			0	42
common persimmon	Diospyros virginiana	NSL	Low	4.9	3.17	0.65	Very Lg. dec.	Sm. dec.	High	Rare	Lost	Poor		Infill +	2	43
water tupelo	Nyssa aquatica	NSH	Medium	0.6	3.08	1.21	Lg. inc.	Lg. inc.	Low	Rare	Fair	Fair	Infill +	Infill +	2	44
pignut hickory	Carya glabra	WDL	Medium	2.3	3.02	1.15	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	45
black cherry	Prunus serotina	WDL	Medium	8.5	2.92	0.45	Lg. inc.	Lg. inc.	Low	Rare	Fair	Fair	Infill +	Infill +	1	46
Shumard oak	Quercus shumardii	NSL	Low	1.1	2.53	1.86	Lg. dec.	Lg. dec.	High	Rare	Poor	Poor			0	47
scarlet oak	Quercus coccinea	WDL	Medium	1.9	2.42	0.84	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost			0	48
overcup oak	Quercus lyrata	NSL	Medium	2.4	1.98	0.79	Sm. inc.	Lg. inc.	Low	Rare	Poor	Fair	Infill +	Infill +	2	49
sassafras	Sassafras albidum	WSL	Low	2.4	1.59	0.64	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost			0	50
American beech	Fagus grandifolia	WDH	High	2.1	1.53	0.59	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost			0	51
turkey oak	Quercus laevis	NSH	Medium	1.1	0.83	0.62	Lg. inc.	Lg. inc.	High	Rare	Good	Good			2	52
red mulberry	Morus rubra	NSL	Low	1.2	0.57	0.47	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	53

National Park
 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
boxelder	Acer negundo	WSH	Low	1.2	0.2	0.15	Lg. dec.	Lg. dec.	High	Rare	Poor	Poor			0	54
sand pine	Pinus clausa	NDH	High	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat			3	55
spruce pine	Pinus glabra	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	56
florida maple	Acer barbatum	NSL	Low	0	0	0	Unknown	Unknown	High	Modeled	Unknown	Unknown			0	57
striped maple	Acer pensylvanicum	NSL	Medium	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	58
serviceberry	Amelanchier spp.	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	59
pawpaw	Asimina triloba	NSL	Low	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0	60
water hickory	Carya aquatica	NSL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	61
shellbark hickory	Carya laciniosa	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	62
sugarberry	Celtis laevigata	NDH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate ++	3	63
white ash	Fraxinus americana	WDL	Medium	0	0	0	Unknown	Unknown	Low	Modeled	Unknown	Unknown			0	64
silverbell	Halesia spp.	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	65
Osage-orange	Maclura pomifera	NDH	Medium	0	0	0	Unknown	Unknown	High	Modeled	Unknown	Unknown			0	66
southern magnolia	Magnolia grandiflora	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	67
bigleaf magnolia	Magnolia macrophylla	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	68
eastern hophornbeam; ironw	Ostrya virginiana	WSL	Low	0	0	0	Unknown	New Habitat	High	Absent	Unknown	New Habitat		Likely +	3	69
pin cherry	Prunus pensylvanica	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	70
swamp white oak	Quercus bicolor	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	71
chinkapin oak	Quercus muehlenbergii	NSL	Medium	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0	72
bluejack oak	Quercus incana	NSL	Low	0	0	0	Unknown	New Habitat	Medium	Absent	Unknown	New Habitat		Migrate +	3	73
cabbage palmetto	Sabal palmetto	NDH	Medium	0	0	0	New Habitat	New Habitat	NA	Absent	New Habitat	New Habitat			0	74
winged elm	Ulmus alata	WDL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate ++	3	75
cedar elm	Ulmus crassifolia	NDH	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat			0	76