

One x One Degree
Climate Change Atlas Tree Species

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Northern Research Station
Landscape Change Research Group
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Current and Potential Future Habitat, Capability, and Migration

Common Name	Scientific Name	Range	MR	%Cell	FIAsum	FIAiv	ChngCI45	ChngCI85	Adap	Abund	Capabil45	Capabil85	SHIFT45	SHIFT85	SSO	N
loblolly pine	Pinus taeda	WDH	High	90.8	3286.3	29.9	No change	No change	Medium	Abundant	Good	Good			1	1
slash pine	Pinus elliotii	NDH	High	50.1	1739.4	27.3	Sm. dec.	Sm. dec.	Medium	Abundant	Fair	Fair			0	2
sweetgum	Liquidambar styraciflua	WDH	High	86	683.6	6.9	Sm. inc.	Sm. inc.	Medium	Abundant	Very Good	Very Good			1	3
longleaf pine	Pinus palustris	NSH	Medium	41.2	641.1	12.3	No change	No change	Medium	Abundant	Good	Good			1	4
water oak	Quercus nigra	WDH	High	76.2	537.5	6.7	Sm. inc.	Lg. inc.	Medium	Abundant	Very Good	Very Good			1	5
blackgum	Nyssa sylvatica	WDL	Medium	71	313.8	3.4	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good			1	6
laurel oak	Quercus laurifolia	NDH	Medium	47.8	259.2	4.7	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	7
southern red oak	Quercus falcata	WDL	Medium	39.3	156.0	3.2	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	8
red maple	Acer rubrum	WDH	High	55.8	117.9	1.7	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	9
sweetbay	Magnolia virginiana	NSL	Medium	27	114.9	3.6	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	10
white oak	Quercus alba	WDH	Medium	24.4	112.8	3.6	No change	Sm. inc.	High	Common	Good	Very Good			1	11
American hornbeam; musclev	Carpinus caroliniana	WSL	Low	27.9	100.9	2.7	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	12
willow oak	Quercus phellos	NSL	Low	17.3	90.5	4.5	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	13
American holly	Ilex opaca	NSL	Medium	37.6	82.4	2.0	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	14
post oak	Quercus stellata	WDH	High	25.3	73.8	2.2	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	15
bald cypress	Taxodium distichum	NSH	Medium	9.9	55.3	3.9	No change	Sm. inc.	Medium	Common	Fair	Good	Infill +	Infill ++	1	16
shortleaf pine	Pinus echinata	WDH	High	11.1	48.6	2.4	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			1	17
American beech	Fagus grandifolia	WDH	High	11.7	43.4	2.9	Lg. inc.	Sm. inc.	Medium	Rare	Good	Fair	Infill ++	Infill +	1	18
overcup oak	Quercus lyrata	NSL	Medium	12.5	41.7	2.6	Lg. inc.	Lg. inc.	Low	Rare	Fair	Fair	Infill +	Infill +	1	19
American elm	Ulmus americana	WDH	Medium	19.2	31.9	1.4	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	1	20
green ash	Fraxinus pennsylvanica	WSH	Low	17.8	27.2	1.3	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			1	21
swamp chestnut oak	Quercus michauxii	NSL	Low	16	26.3	1.9	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			1	22
southern magnolia	Magnolia grandiflora	NSL	Low	20.5	26.1	1.1	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			1	23
redbay	Persea borbonia	NSL	Low	20.1	26.0	1.2	No change	No change	High	Rare	Fair	Fair			1	24
sassafras	Sassafras albidum	WSL	Low	18.8	25.6	1.1	Sm. dec.	No change	Medium	Rare	Very Poor	Poor			1	25
mockernut hickory	Carya alba	WDL	Medium	15.3	25.5	1.6	Sm. inc.	Lg. inc.	High	Rare	Good	Good			1	26
black cherry	Prunus serotina	WDL	Medium	21.8	23.4	0.9	Lg. inc.	Lg. inc.	Low	Rare	Fair	Fair			1	27
cherrybark oak; swamp red o.	Quercus pagoda	NSL	Medium	17.4	22.6	1.7	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			1	28
swamp tupelo	Nyssa biflora	NDH	Medium	4.4	19.9	4.1	No change	No change	Low	Rare	Very Poor	Very Poor			0	29
water tupelo	Nyssa aquatica	NSH	Medium	4.5	19.9	2.8	No change	No change	Low	Rare	Very Poor	Very Poor			2	30
black willow	Salix nigra	NSH	Low	3.1	19.6	4.3	No change	Lg. inc.	Low	Rare	Very Poor	Fair		Infill +	2	31
sycamore	Platanus occidentalis	NSL	Low	2.8	17.5	6.2	Sm. dec.	No change	Medium	Rare	Very Poor	Poor			2	32
water hickory	Carya aquatica	NSL	Medium	8.8	17.3	1.8	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	1	33
florida maple	Acer barbatum	NSL	Low	5	16.8	2.4	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor			0	34
flowering dogwood	Cornus florida	WDL	Medium	15.2	15.5	0.7	Sm. inc.	Sm. inc.	Medium	Rare	Fair	Fair			1	35
live oak	Quercus virginiana	NDH	High	4.4	15.0	8.9	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	36
black hickory	Carya texana	NDL	High	4.9	14.2	1.1	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	2	37
blackjack oak	Quercus marilandica	NSL	Medium	12.2	12.2	0.7	Lg. inc.	Lg. inc.	High	Rare	Good	Good	Infill ++	Infill ++	1	38
eastern hophornbeam; ironw	Ostrya virginiana	WSL	Low	8.7	11.8	0.8	No change	Sm. inc.	High	Rare	Fair	Good			1	39
river birch	Betula nigra	NSL	Low	6.4	11.7	1.6	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	1	40
white ash	Fraxinus americana	WDL	Medium	7.1	11.4	1.5	Sm. dec.	Sm. dec.	Low	Rare	Very Poor	Very Poor			2	41
winged elm	Ulmus alata	WDL	Medium	7.1	11.3	0.9	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			1	42
black walnut	Juglans nigra	WDH	Low	0.9	9.6	10.2	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	43
pecan	Carya illinoensis	NSH	Low	0.9	6.8	7.2	No change	Sm. inc.	Low	Rare	Very Poor	Poor		Infill +	2	44
common persimmon	Diospyros virginiana	NSL	Low	8.3	6.3	1.2	Lg. dec.	Sm. dec.	High	Rare	Poor	Poor		Infill +	1	45
bluejack oak	Quercus incana	NSL	Low	1.5	5.7	1.0	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	2	46
boxelder	Acer negundo	WSH	Low	0.9	5.1	5.4	Sm. dec.	No change	High	Rare	Poor	Fair		Infill +	2	47



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bitternut hickory	<i>Carya cordiformis</i>	WSL	Low	6.4	4.8	1.3	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor			0	48
black oak	<i>Quercus velutina</i>	WDH	High	2.9	3.7	1.3	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	49
slippery elm	<i>Ulmus rubra</i>	WSL	Low	3.8	3.5	0.9	Sm. dec.	Lg. inc.	Medium	Rare	Very Poor	Good		Infill ++	2	50
water elm	<i>Planera aquatica</i>	NSL	Low	1.9	3.2	0.9	No change	Sm. inc.	Medium	Rare	Poor	Fair	Infill +	Infill +	2	51
sugarberry	<i>Celtis laevigata</i>	NDH	Medium	2.9	2.9	0.7	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	52
cittamwood/gum bumelia	<i>Sideroxylon lanuginosum ssp.</i>	NSL	Low	2.1	2.6	0.5	No change	Lg. inc.	High	Rare	Fair	Good		Infill ++	2	53
nuttall oak	<i>Quercus texana</i>	NSH	Medium	4	2.4	1.0	Sm. dec.	No change	High	Rare	Poor	Fair			0	54
eastern redcedar	<i>Juniperus virginiana</i>	WDH	Medium	1.9	1.9	1.0	Sm. inc.	Lg. inc.	Medium	Rare	Fair	Good	Infill +		2	55
red mulberry	<i>Morus rubra</i>	NSL	Low	1.1	1.5	0.7	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	2	56
swamp white oak	<i>Quercus bicolor</i>	NSL	Low	0.7	1.2	0.9	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	57
eastern redbud	<i>Cercis canadensis</i>	NSL	Low	0.8	1.0	0.9	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	58
hackberry	<i>Celtis occidentalis</i>	WDH	Medium	0.9	0.9	1.0	Very Lg. dec.	Very Lg. dec.	High	Rare	Lost	Lost			0	59
black locust	<i>Robinia pseudoacacia</i>	NDH	Low	1.9	0.7	0.4	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost			0	60
pignut hickory	<i>Carya glabra</i>	WDL	Medium	0.2	0.4	0.1	Sm. inc.	Lg. inc.	Medium	Rare	Fair	Good	Infill +		2	61
turkey oak	<i>Quercus laevis</i>	NSH	Medium	0.9	0.4	0.5	Lg. dec.	Sm. inc.	High	Rare	Poor	Good			0	62
wild plum	<i>Prunus americana</i>	NSLX	FIA	0.8	0.4	0.3	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	63
Shumard oak	<i>Quercus shumardii</i>	NSL	Low	0.9	0.3	0.3	Lg. dec.	Lg. dec.	High	Rare	Poor	Poor			0	64
ogeechee tupelo	<i>Nyssa ogeche</i>	NSLX	FIA	0.3	0.2	0.1	Unknown	Unknown	Low	Rare	FIA Only	FIA Only			0	65
Atlantic white-cedar	<i>Chamaecyparis thyoides</i>	NSH	Low	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat			3	66
striped maple	<i>Acer pensylvanicum</i>	NSL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	67
serviceberry	<i>Amelanchier spp.</i>	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	68
pawpaw	<i>Asimina triloba</i>	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	69
shellbark hickory	<i>Carya laciniosa</i>	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	70
black ash	<i>Fraxinus nigra</i>	WSH	Medium	0	0	0	New Habitat	Unknown	Low	Absent	New Habitat	Unknown			3	71
blue ash	<i>Fraxinus quadrangulata</i>	NSL	Low	0	0	0	Unknown	Unknown	Low	Modeled	Unknown	Unknown			0	72
honeylocust	<i>Gleditsia triacanthos</i>	NSH	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Likely +	Likely +	3	73
silverbell	<i>Halesia spp.</i>	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	74
yellow-poplar	<i>Liriodendron tulipifera</i>	WDH	High	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	75
bigleaf magnolia	<i>Magnolia macrophylla</i>	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	76
sourwood	<i>Oxydendrum arboreum</i>	NDL	High	0	0	0	Unknown	Unknown	High	Modeled	Unknown	Unknown			0	77
pin cherry	<i>Prunus pensylvanica</i>	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	78
scarlet oak	<i>Quercus coccinea</i>	WDL	Medium	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	79
bur oak	<i>Quercus macrocarpa</i>	NDH	Medium	0	0	0	Unknown	Unknown	High	Modeled	Unknown	Unknown			0	80
chinkapin oak	<i>Quercus muehlenbergii</i>	NSL	Medium	0	0	0	New Habitat	Unknown	Medium	Absent	New Habitat	Unknown	Likely +		3	81
northern red oak	<i>Quercus rubra</i>	WDH	Medium	0	0	0	Unknown	Unknown	High	Absent	Unknown	Unknown			0	82
cabbage palmetto	<i>Sabal palmetto</i>	NDH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			0	83
American basswood	<i>Tilia americana</i>	WSL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	84
cedar elm	<i>Ulmus crassifolia</i>	NDH	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat	Migrate ++	Migrate ++	3	85