

One x One Degree
Climate Change Atlas Tree Species

USDA Forest Service
Northern Research Station
Landscape Change Research Group
Iverson, Peters, Prasad, Matthews

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
bald cypress	Taxodium distichum	NSH	Medium	57.2	1381.9	21.1	No change	No change	Medium	Abundant	Good	Good			1	1
water tupelo	Nyssa aquatica	NSH	Medium	39.1	1139.5	22.3	Sm. dec.	Sm. dec.	Low	Abundant	Fair	Fair			0	2
red maple	Acer rubrum	WDH	High	51.2	965.9	18.7	No change	No change	High	Abundant	Very Good	Very Good			1	3
black willow	Salix nigra	NSH	Low	30	926.0	22.0	Sm. dec.	Sm. dec.	Low	Abundant	Fair	Fair			0	4
green ash	Fraxinus pennsylvanica	WSH	Low	38.5	328.2	5.9	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	5
sugarberry	Celtis laevigata	NDH	Medium	20.8	215.7	6.9	Sm. inc.	Lg. inc.	Medium	Common	Good	Very Good			1	6
water oak	Quercus nigra	WDH	High	14.5	128.9	3.7	Sm. inc.	Sm. inc.	Medium	Common	Good	Good	Infill ++	Infill ++	1	7
swamp tupelo	Nyssa biflora	NDH	Medium	19.7	116.6	8.5	Lg. dec.	Lg. dec.	Low	Common	Very Poor	Very Poor			0	8
American elm	Ulmus americana	WDH	Medium	14.5	78.5	1.7	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good	Infill ++	Infill ++	1	9
sweetgum	Liquidambar styraciflua	WDH	High	20.7	71.4	3.1	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	10
water hickory	Carya aquatica	NSL	Medium	16.4	69.4	2.3	Sm. dec.	No change	Medium	Common	Poor	Fair	Infill +	Infill +	1	11
boxelder	Acer negundo	WSH	Low	4	60.4	4.7	No change	No change	High	Common	Good	Good	Infill ++	Infill ++	1	12
sweetbay	Magnolia virginiana	NSL	Medium	8.2	53.0	13.7	Very Lg. dec.	Very Lg. dec.	Medium	Common	Lost	Lost			0	13
live oak	Quercus virginiana	NDH	High	22.3	43.9	7.5	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	2	14
nuttall oak	Quercus texana	NSH	Medium	5.7	34.2	1.3	No change	Sm. inc.	High	Rare	Fair	Good			0	15
pecan	Carya illinoensis	NSH	Low	7.8	26.8	1.2	No change	Sm. inc.	Low	Rare	Very Poor	Poor		Infill +	2	16
slippery elm	Ulmus rubra	WSL	Low	12.4	22.5	1.6	No change	Sm. inc.	Medium	Rare	Poor	Fair	Infill +	Infill +	1	17
common persimmon	Diospyros virginiana	NSL	Low	6.3	17.3	1.4	No change	No change	High	Rare	Fair	Fair	Infill +	Infill +	1	18
flowering dogwood	Cornus florida	WDL	Medium	8.5	16.5	2.3	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	19
overcup oak	Quercus lyrata	NSL	Medium	5.1	15.9	1.4	No change	Lg. inc.	Low	Rare	Very Poor	Fair		Infill +	2	20
eastern cottonwood	Populus deltoides	NSH	Low	8.2	12.3	3.6	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	2	21
water elm	Planera aquatica	NSL	Low	4	10.0	1.4	No change	Sm. inc.	Medium	Rare	Poor	Fair	Infill +	Infill +	1	22
redbay	Persea borbonia	NSL	Low	12.3	7.8	2.4	Lg. dec.	Lg. dec.	High	Rare	Poor	Poor			0	23
laurel oak	Quercus laurifolia	NDH	Medium	10.5	5.0	1.2	No change	Sm. inc.	Medium	Rare	Poor	Fair	Infill +	Infill +	2	24
eastern hophornbeam; ironw	Ostrya virginiana	WSL	Low	2.4	3.7	0.5	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor			0	25
honeylocust	Gleditsia triacanthos	NSH	Low	3.8	3.4	0.4	Sm. dec.	No change	High	Rare	Poor	Fair		Infill +	2	26
blackgum	Nyssa sylvatica	WDL	Medium	2.1	2.3	1.2	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor			0	27
cedar elm	Ulmus crassifolia	NDH	Medium	0.3	2.1	0.1	Lg. inc.	Lg. inc.	Low	Rare	Fair	Fair	Infill +	Infill +	2	28
black cherry	Prunus serotina	WDL	Medium	6.1	1.0	1.5	Sm. dec.	Sm. dec.	Low	Rare	Very Poor	Very Poor			0	29
willow oak	Quercus phellos	NSL	Low	0.5	1.0	0.1	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	30
pignut hickory	Carya glabra	WDL	Medium	0.5	0.7	0.1	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	31
red mulberry	Morus rubra	NSL	Low	2.1	0.4	0.2	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			0	32
post oak	Quercus stellata	WDH	High	6.1	0.1	0.2	Lg. dec.	Lg. inc.	High	Rare	Poor	Good			2	33
Atlantic white-cedar	Chamaecyparis thyoides	NSH	Low	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat			3	34
eastern redcedar	Juniperus virginiana	WDH	Medium	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0	35
spruce pine	Pinus glabra	NSL	Low	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0	36
loblolly pine	Pinus taeda	WDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate ++	Migrate ++	3	37
black maple	Acer nigrum	NSH	Low	0	0	0	Unknown	Unknown	High	Modeled	Unknown	Unknown			0	38
striped maple	Acer pensylvanicum	NSL	Medium	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	39
mountain maple	Acer spicatum	NSL	Low	0	0	0	Unknown	Unknown	High	Absent	Unknown	Unknown			0	40
serviceberry	Amelanchier spp.	NSL	Low	0	0	0	Unknown	New Habitat	Medium	Absent	Unknown	New Habitat			3	41
pawpaw	Asimina triloba	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	42
cittamwood/gum bumelia	Sideroxylon lanuginosum ssp.	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat		Migrate +	3	43
shagbark hickory	Carya ovata	WSL	Medium	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0	44
mockernut hickory	Carya alba	WDL	Medium	0	0	0	Unknown	Unknown	High	Modeled	Unknown	Unknown			0	45
black ash	Fraxinus nigra	WSH	Medium	0	0	0	Unknown	Unknown	Low	Absent	Unknown	Unknown			0	46
loblolly-bay	Gordonia lasianthus	NSH	Medium	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	47



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silverbell	Halesia spp.	NSL	Low	0	0	0	Unknown	New Habitat	Medium	Absent	Unknown	New Habitat			3	48
American holly	Ilex opaca	NSL	Medium	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0	49
bigleaf magnolia	Magnolia macrophylla	NSL	Low	0	0	0	Unknown	New Habitat	Medium	Absent	Unknown	New Habitat			3	50
sycamore	Platanus occidentalis	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Likely +	Likely +	3	51
pin cherry	Prunus pensylvanica	NSL	Low	0	0	0	Unknown	New Habitat	Medium	Absent	Unknown	New Habitat			3	52
cherrybark oak; swamp red o	Quercus pagoda	NSL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Likely +	Likely +	3	53
chinkapin oak	Quercus muehlenbergii	NSL	Medium	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	54
black oak	Quercus velutina	WDH	High	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	55
cabbage palmetto	Sabal palmetto	NDH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			0	56
American basswood	Tilia americana	WSL	Medium	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	57
winged elm	Ulmus alata	WDL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Likely +	Likely +	3	58