

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	93.2	4506.1	35.2	No change	Sm. dec.	Medium	Abundant	Good	Fair			1	1
sweetgum	Liquidambar styraciflua	WDH	High	91.5	1482.3	11.9	No change	Sm. dec.	Medium	Abundant	Good	Fair			1	2
water oak	Quercus nigra	WDH	High	87.6	772.8	6.4	Sm. inc.	Sm. inc.	Medium	Abundant	Very Good	Very Good			1	3
red maple	Acer rubrum	WDH	High	83.9	672.5	6.1	No change	No change	High	Abundant	Very Good	Very Good			1	4
laurel oak	Quercus laurifolia	NDH	Medium	58.3	427.0	4.5	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	5
swamp tupelo	Nyssa biflora	NDH	Medium	56.9	407.5	4.3	Sm. inc.	Sm. inc.	Low	Common	Fair	Fair			1	6
longleaf pine	Pinus palustris	NSH	Medium	25.7	246.5	8.1	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	7
water tupelo	Nyssa aquatica	NSH	Medium	20.7	166.4	8.1	Sm. dec.	Sm. dec.	Low	Common	Poor	Poor			0	8
bald cypress	Taxodium distichum	NSH	Medium	26.1	161.9	5.4	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	9
pond pine	Pinus serotina	NSH	Medium	14.3	146.7	8.8	Sm. dec.	Sm. dec.	Low	Common	Poor	Poor			0	10
willow oak	Quercus phellos	NSL	Low	30.6	124.5	3.1	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	11
yellow-poplar	Liriodendron tulipifera	WDH	High	26.9	123.9	3.1	Sm. dec.	Sm. dec.	High	Common	Fair	Fair			1	12
blackgum	Nyssa sylvatica	WDL	Medium	41.1	121.9	2.4	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	13
mockernut hickory	Carya alba	WDL	Medium	35.5	110.7	2.7	No change	Sm. inc.	High	Common	Good	Very Good			1	14
black cherry	Prunus serotina	WDL	Medium	39.3	99.8	2.1	Lg. inc.	Lg. inc.	Low	Common	Good	Good			1	15
green ash	Fraxinus pennsylvanica	WSH	Low	32.7	98.5	2.6	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	16
southern red oak	Quercus falcata	WDL	Medium	25.3	92.0	2.9	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	17
redbay	Persea borbonia	NSL	Low	35.9	88.0	1.6	No change	No change	High	Common	Good	Good			1	18
American hornbeam; musclev	Carpinus caroliniana	WSL	Low	20.6	83.3	2.5	Sm. inc.	Lg. inc.	Medium	Common	Good	Very Good			1	19
slash pine	Pinus elliotii	NDH	High	17.5	81.7	3.9	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good	Infill ++	Infill ++	1	20
American elm	Ulmus americana	WDH	Medium	27.7	68.9	2.0	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	21
sweetbay	Magnolia virginiana	NSL	Medium	20	66.9	2.2	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	22
American holly	Ilex opaca	NSL	Medium	25.2	58.4	1.7	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	23
post oak	Quercus stellata	WDH	High	28.6	58.0	1.7	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	24
sugarberry	Celtis laevigata	NDH	Medium	10.4	57.4	4.0	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good	Infill ++	Infill ++	1	25
black willow	Salix nigra	NSH	Low	19.1	57.4	2.7	Sm. inc.	Lg. inc.	Low	Common	Fair	Good			1	26
pond cypress	Taxodium ascendens	NSH	Medium	8.4	55.5	5.6	Sm. inc.	Sm. inc.	Medium	Common	Good	Good	Infill ++	Infill ++	2	27
white oak	Quercus alba	WDH	Medium	22.3	54.5	1.7	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good			1	28
cherrybark oak; swamp red o	Quercus pagoda	NSL	Medium	16.5	52.1	2.3	No change	No change	Medium	Common	Fair	Fair			1	29
common persimmon	Diospyros virginiana	NSL	Low	18.5	39.4	1.8	Lg. dec.	Lg. dec.	High	Rare	Poor	Poor			1	30
river birch	Betula nigra	NSL	Low	8	37.5	3.9	No change	Sm. inc.	Medium	Rare	Poor	Fair			1	31
sycamore	Platanus occidentalis	NSL	Low	5.9	37.4	3.9	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	2	32
shortleaf pine	Pinus echinata	WDH	High	9.1	36.1	3.4	Sm. inc.	Sm. inc.	Medium	Rare	Fair	Fair	Infill +	Infill +	1	33
scarlet oak	Quercus coccinea	WDL	Medium	7.1	33.1	2.5	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	34
turkey oak	Quercus laevis	NSH	Medium	8.5	32.0	2.6	No change	No change	High	Rare	Fair	Fair	Infill +	Infill +	1	35
pignut hickory	Carya glabra	WDL	Medium	10	31.2	2.0	Sm. dec.	No change	Medium	Rare	Very Poor	Poor		Infill +	1	36
swamp chestnut oak	Quercus michauxii	NSL	Low	11.1	26.5	1.4	Sm. inc.	Sm. inc.	Medium	Rare	Fair	Fair			1	37
water hickory	Carya aquatica	NSL	Medium	9.6	26.1	1.9	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	1	38
flowering dogwood	Cornus florida	WDL	Medium	17.2	25.5	1.0	No change	Sm. inc.	Medium	Rare	Poor	Fair			1	39
live oak	Quercus virginiana	NDH	High	7.2	22.4	1.8	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	2	40
boxelder	Acer negundo	WSH	Low	3.5	21.2	2.6	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor		Infill +	2	41
overcup oak	Quercus lyrata	NSL	Medium	6.8	21.0	2.4	No change	No change	Low	Rare	Very Poor	Very Poor			0	42
spruce pine	Pinus glabra	NSL	Low	4.4	19.0	1.5	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	43
slippery elm	Ulmus rubra	WSL	Low	19.3	18.8	0.8	Sm. dec.	No change	Medium	Rare	Very Poor	Poor			1	44
hackberry	Celtis occidentalis	WDH	Medium	4.1	18.7	3.3	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor			0	45
eastern redcedar	Juniperus virginiana	WDH	Medium	3.9	18.5	3.7	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	2	46
sand hickory	Carya pallida	NSL	FIA	2.9	16.4	3.3	Unknown	Unknown	NA	Rare	FIA Only	FIA Only			0	47

One x One Degree
Climate Change Atlas Tree Species

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

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water elm	Planera aquatica	NSL	Low	6.5	15.8	2.2	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	1	48
blackjack oak	Quercus marilandica	NSL	Medium	8	15.5	1.4	No change	No change	High	Rare	Fair	Fair	Infill +	Infill +	1	49
winged elm	Ulmus alata	WDL	Medium	12.2	12.4	0.8	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			1	50
black oak	Quercus velutina	WDH	High	4.3	8.3	0.7	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			2	51
southern magnolia	Magnolia grandiflora	NSL	Low	2	8.3	2.3	Sm. inc.	Lg. inc.	Medium	Rare	Fair	Good	Infill +	Infill ++	2	52
bluejack oak	Quercus incana	NSL	Low	3.9	7.1	1.8	No change	No change	Medium	Rare	Poor	Poor		Infill +	1	53
eastern cottonwood	Populus deltoides	NSH	Low	2.9	6.0	2.1	Sm. dec.	Very Lg. dec.	Medium	Rare	Very Poor	Lost			0	54
pawpaw	Asimina triloba	NSL	Low	2.3	5.2	1.7	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	55
sassafras	Sassafras albidum	WSL	Low	7.3	4.8	0.6	Sm. inc.	Sm. inc.	Medium	Rare	Fair	Fair	Infill +	Infill +	1	56
pecan	Carya illinoensis	NSH	Low	1.9	3.3	1.7	Sm. dec.	No change	Low	Rare	Very Poor	Very Poor			2	57
American beech	Fagus grandifolia	WDH	High	3.5	3.0	0.5	No change	Sm. inc.	Medium	Rare	Poor	Fair	Infill +		2	58
northern red oak	Quercus rubra	WDH	Medium	1	2.6	2.7	Lg. dec.	Lg. dec.	High	Rare	Poor	Poor		Infill +	2	59
loblolly-bay	Gordonia lasianthus	NSH	Medium	3	2.6	0.5	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	2	60
Carolina ash	Fraxinus caroliniana	NSL	FIA	1	2.3	2.4	Unknown	Unknown	NA	Rare	FIA Only	FIA Only			0	61
shagbark hickory	Carya ovata	WSL	Medium	1.9	2.1	1.1	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	62
black walnut	Juglans nigra	WDH	Low	2.2	1.9	0.5	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost			0	63
silverbell	Halesia spp.	NSL	Low	1	1.8	1.8	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	64
eastern hophornbeam; ironw	Ostrya virginiana	WSL	Low	1	1.6	1.7	Lg. inc.	Lg. inc.	High	Rare	Good	Good			2	65
bigleaf magnolia	Magnolia macrophylla	NSL	Low	0.7	1.6	1.2	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	66
red mulberry	Morus rubra	NSL	Low	1.9	1.6	0.8	Sm. dec.	No change	Medium	Rare	Very Poor	Poor		Infill +	2	67
pumpkin ash	Fraxinus profunda	NSH	FIA	1	1.1	1.1	Unknown	Unknown	NA	Rare	FIA Only	FIA Only			0	68
chestnut oak	Quercus prinus	NDH	High	1	0.8	0.8	Lg. dec.	Lg. dec.	High	Rare	Poor	Poor			0	69
sourwood	Oxydendrum arboreum	NDL	High	5.8	0.7	0.3	Lg. dec.	Very Lg. dec.	High	Rare	Poor	Lost			0	70
wild plum	Prunus americana	NSLX	FIA	1	0.5	0.5	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	71
yellow buckeye	Aesculus flava	NSL	Low	0.4	0.4	0.2	Sm. dec.	Sm. dec.	Low	Rare	Very Poor	Very Poor			0	72
white ash	Fraxinus americana	WDL	Medium	1	0.2	0.2	Lg. dec.	Lg. dec.	Low	Rare	Very Poor	Very Poor			0	73
Shumard oak	Quercus shumardii	NSL	Low	1	0.2	0.2	No change	No change	High	Rare	Fair	Fair			0	74
sand pine	Pinus clausa	NDH	High	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat	Migrate +		3	75
florida maple	Acer barbatum	NSL	Low	0	0	0	Unknown	Unknown	High	Modeled	Unknown	Unknown			0	76
silver maple	Acer saccharinum	NSH	Low	0	0	0	Unknown	Unknown	High	Absent	Unknown	Unknown			0	77
serviceberry	Amelanchier spp.	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	78
cittamwood/gum bumelia	Sideroxylon lanuginosum ssp.	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat			0	79
shellbark hickory	Carya laciniosa	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	80
black hickory	Carya texana	NDL	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	81
eastern redbud	Cercis canadensis	NSL	Low	0	0	0	Unknown	New Habitat	Medium	Absent	Unknown	New Habitat		Likely +	3	82
black ash	Fraxinus nigra	WSH	Medium	0	0	0	Unknown	New Habitat	Low	Absent	Unknown	New Habitat			3	83
honeylocust	Gleditsia triacanthos	NSH	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat		Migrate +	3	84
pin cherry	Prunus pensylvanica	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	85
swamp white oak	Quercus bicolor	NSL	Low	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0	86
chinkapin oak	Quercus muehlenbergii	NSL	Medium	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	87
American basswood	Tilia americana	WSL	Medium	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	88
cedar elm	Ulmus crassifolia	NDH	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat			0	89