

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
shortleaf pine	Pinus echinata	WDH	High	88.4	2508.5	21.7	No change	No change	Medium	Abundant	Good	Good			1	1
loblolly pine	Pinus taeda	WDH	High	60.2	2500.6	30.1	No change	No change	Medium	Abundant	Good	Good			1	2
post oak	Quercus stellata	WDH	High	87.2	1115.9	8.9	Sm. inc.	Sm. inc.	High	Abundant	Very Good	Very Good			1	3
white oak	Quercus alba	WDH	Medium	79.1	825.2	8.2	No change	No change	High	Abundant	Very Good	Very Good			1	4
sweetgum	Liquidambar styraciflua	WDH	High	59.3	504.7	6.4	Sm. inc.	Sm. inc.	Medium	Abundant	Very Good	Very Good			1	5
mockernut hickory	Carya alba	WDL	Medium	78	447.3	4.4	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good			1	6
winged elm	Ulmus alata	WDL	Medium	84.4	438.4	3.5	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	7
eastern redcedar	Juniperus virginiana	WDH	Medium	60	423.4	4.9	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	8
northern red oak	Quercus rubra	WDH	Medium	64.9	355.6	4.3	No change	No change	High	Common	Good	Good			1	9
black hickory	Carya texana	NDL	High	73.7	298.1	3.0	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	10
southern red oak	Quercus falcata	WDL	Medium	54.7	247.4	3.3	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	11
blackgum	Nyssa sylvatica	WDL	Medium	58.6	217.2	3.0	Sm. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	12
red maple	Acer rubrum	WDH	High	58	210.2	2.8	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good			1	13
black oak	Quercus velutina	WDH	High	55.2	206.8	2.9	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	14
water oak	Quercus nigra	WDH	High	27.8	163.0	3.3	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	15
eastern hophornbeam; ironw	Ostrya virginiana	WSL	Low	47.7	135.8	2.2	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good			1	16
black cherry	Prunus serotina	WDL	Medium	55.3	121.7	1.5	Lg. inc.	Lg. inc.	Low	Common	Good	Good			1	17
blackjack oak	Quercus marilandica	NSL	Medium	28.5	97.8	2.2	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	18
American elm	Ulmus americana	WDH	Medium	19	79.9	2.4	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	19
green ash	Fraxinus pennsylvanica	WSH	Low	23.3	79.3	2.4	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	20
sycamore	Platanus occidentalis	NSL	Low	11.2	57.5	3.2	No change	Sm. inc.	Medium	Common	Fair	Good			1	21
river birch	Betula nigra	NSL	Low	3	55.7	8.6	No change	No change	Medium	Common	Fair	Fair	Infill +	Infill +	1	22
flowering dogwood	Cornus florida	WDL	Medium	39.3	52.6	1.1	Sm. inc.	Lg. inc.	Medium	Common	Good	Very Good			1	23
sugarberry	Celtis laevigata	NDH	Medium	15.9	47.6	1.9	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			1	24
slippery elm	Ulmus rubra	WSL	Low	11.2	41.9	2.2	Sm. dec.	Sm. inc.	Medium	Rare	Very Poor	Fair			1	25
white ash	Fraxinus americana	WDL	Medium	18.8	40.7	1.5	Lg. inc.	Lg. inc.	Low	Rare	Fair	Fair			1	26
American hornbeam; musclev	Carpinus caroliniana	WSL	Low	18.5	39.7	1.5	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			1	27
common persimmon	Diospyros virginiana	NSL	Low	13	38.3	2.2	No change	Lg. inc.	High	Rare	Fair	Good			1	28
Shumard oak	Quercus shumardii	NSL	Low	7.1	34.6	3.2	No change	No change	High	Rare	Fair	Fair	Infill +	Infill +	1	29
eastern redbud	Cercis canadensis	NSL	Low	19.1	30.2	1.1	Lg. dec.	No change	Medium	Rare	Very Poor	Poor			1	30
honeylocust	Gleditsia triacanthos	NSH	Low	5	29.5	3.5	No change	No change	High	Rare	Fair	Fair	Infill +	Infill +	1	31
willow oak	Quercus phellos	NSL	Low	7.6	27.5	2.2	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	1	32
black willow	Salix nigra	NSH	Low	2.9	26.0	3.7	No change	No change	Low	Rare	Very Poor	Very Poor			2	33
American holly	Ilex opaca	NSL	Medium	14.5	22.9	1.0	Sm. dec.	No change	Medium	Rare	Very Poor	Poor			1	34
bitternut hickory	Carya cordiformis	WSL	Low	7.1	22.2	1.9	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor	Infill +		1	35
cherrybark oak; swamp red o	Quercus pagoda	NSL	Medium	4.9	21.0	2.3	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	1	36
Osage-orange	Maclura pomifera	NDH	Medium	2.4	20.3	2.4	No change	No change	High	Rare	Fair	Fair		Infill +	2	37
boxelder	Acer negundo	WSH	Low	2.9	19.2	3.1	No change	No change	High	Rare	Fair	Fair	Infill +	Infill +	2	38
florida maple	Acer barbatum	NSL	Low	11.4	18.5	1.1	No change	Sm. inc.	High	Rare	Fair	Good			1	39
silver maple	Acer saccharinum	NSH	Low	1.2	17.8	5.5	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor			0	40
pin oak	Quercus palustris	NSH	Low	2	13.9	7.1	Sm. dec.	Sm. dec.	Low	Rare	Very Poor	Very Poor			0	41
hackberry	Celtis occidentalis	WDH	Medium	7	13.5	1.2	No change	No change	High	Rare	Fair	Fair	Infill +	Infill +	1	42
shagbark hickory	Carya ovata	WSL	Medium	3.6	12.2	1.2	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			2	43
black locust	Robinia pseudoacacia	NDH	Low	4.3	11.3	0.9	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	44
cedar elm	Ulmus crassifolia	NDH	Medium	1	9.9	10.1	Lg. inc.	Lg. inc.	Low	Rare	Fair	Fair	Infill +	Infill +	2	45
sassafras	Sassafras albidum	WSL	Low	5.6	7.1	0.5	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	1	46
overcup oak	Quercus lyrata	NSL	Medium	0.8	7.0	1.1	No change	No change	Low	Rare	Very Poor	Very Poor			2	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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red mulberry	Morus rubra	NSL	Low	8.6	6.0	0.7	No change	Sm. inc.	Medium	Rare	Poor	Fair			1	48
black walnut	Juglans nigra	WDH	Low	0.7	5.2	0.9	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	49
wild plum	Prunus americana	NSLX	FIA	7.3	5.1	0.6	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	50
American beech	Fagus grandifolia	WDH	High	1.8	5.1	2.5	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	51
serviceberry	Amelanchier spp.	NSL	Low	10.1	4.7	0.4	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	52
pignut hickory	Carya glabra	WDL	Medium	2.9	4.7	1.6	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	53
sugar maple	Acer saccharum	WDH	High	1.1	3.7	1.1	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor			0	54
eastern cottonwood	Populus deltoides	NSH	Low	0.8	2.7	2.3	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	55
American basswood	Tilia americana	WSL	Medium	3.3	2.2	0.5	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost			0	56
bluejack oak	Quercus incana	NSL	Low	0.5	1.4	0.7	No change	Sm. inc.	Medium	Rare	Poor	Fair		Infill +	2	57
swamp chestnut oak	Quercus michauxii	NSL	Low	0.5	1.0	0.6	Sm. dec.	No change	Medium	Rare	Very Poor	Poor			0	58
cittamwood/gum bumelia	Sideroxylon lanuginosum ssp.	NSL	Low	1.8	0.9	0.4	Lg. inc.	Lg. inc.	High	Rare	Good	Good	Infill ++	Infill ++	2	59
chinkapin oak	Quercus muehlenbergii	NSL	Medium	0.6	0.4	0.2	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	60
pawpaw	Asimina triloba	NSL	Low	1	0.4	0.4	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	61
ashe juniper	Juniperus ashei	NDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			0	62
slash pine	Pinus elliotii	NDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +	3	63
longleaf pine	Pinus palustris	NSH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate ++	3	64
pitch pine	Pinus rigida	NSH	High	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0	65
Virginia pine	Pinus virginiana	NDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	66
striped maple	Acer pensylvanicum	NSL	Medium	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	67
sweet birch	Betula lenta	NDH	High	0	0	0	Unknown	Unknown	Low	Absent	Unknown	Unknown			0	68
pecan	Carya illinoensis	NSH	Low	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat	Likely +	Likely +	3	69
shellbark hickory	Carya laciniosa	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	70
black ash	Fraxinus nigra	WSH	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat			3	71
silverbell	Halesia spp.	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	72
yellow-poplar	Liriodendron tulipifera	WDH	High	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	73
cucumbertree	Magnolia acuminata	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	74
southern magnolia	Magnolia grandiflora	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +	3	75
sweetbay	Magnolia virginiana	NSL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	76
bigleaf magnolia	Magnolia macrophylla	NSL	Low	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0	77
mountain or Fraser magnolia	Magnolia fraseri	NSL	Low	0	0	0	Unknown	Unknown	Low	Absent	Unknown	Unknown			0	78
sourwood	Oxydendrum arboreum	NDL	High	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	79
pin cherry	Prunus pensylvanica	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	80
scarlet oak	Quercus coccinea	WDL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	81
laurel oak	Quercus laurifolia	NDH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	82
nuttall oak	Quercus texana	NSH	Medium	0	0	0	Unknown	Unknown	High	Modeled	Unknown	Unknown			0	83
chestnut oak	Quercus prinus	NDH	High	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat			3	84
live oak	Quercus virginiana	NDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate ++	Migrate ++	3	85