

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
red maple	Acer rubrum	WDH	High	82.1	986.8	12.01	No change	Sm. dec.	High	Abundant	Very Good	Good			1	1
yellow-poplar	Liriodendron tulipifera	WDH	High	76.2	975.71	12.81	No change	Sm. dec.	High	Abundant	Very Good	Good	Infill ++	Infill ++	1	2
chestnut oak	Quercus prinus	NDH	High	71.4	891.94	12.49	No change	No change	High	Abundant	Very Good	Very Good	Infill ++	Infill ++	1	3
white oak	Quercus alba	WDH	Medium	75	634.7	8.46	Sm. inc.	Sm. inc.	High	Abundant	Very Good	Very Good	Infill ++	Infill ++	1	4
northern red oak	Quercus rubra	WDH	Medium	78.6	554.67	7.06	Sm. inc.	Sm. inc.	High	Abundant	Very Good	Very Good	Infill ++	Infill ++	1	5
black oak	Quercus velutina	WDH	High	64.3	491.5	7.65	No change	Sm. inc.	Medium	Common	Fair	Good	Infill +	Infill ++	1	6
black locust	Robinia pseudoacacia	NDH	Low	75	482.76	6.44	No change	No change	Medium	Common	Fair	Fair	Infill +	Infill +	1	7
sugar maple	Acer saccharum	WDH	High	73.8	478.49	6.48	No change	No change	High	Common	Good	Good	Infill ++	Infill ++	1	8
scarlet oak	Quercus coccinea	WDL	Medium	58.3	325.58	5.58	Sm. inc.	No change	Medium	Common	Good	Fair	Infill ++	Infill +	1	9
eastern white pine	Pinus strobus	WDH	High	34.5	315.57	9.14	Sm. inc.	Sm. inc.	Low	Common	Fair	Fair	Infill +	Infill +	1	10
sourwood	Oxydendrum arboreum	NDL	High	61.9	280.19	4.53	No change	No change	High	Common	Good	Good	Infill ++	Infill ++	1	11
American beech	Fagus grandifolia	WDH	High	48.8	261.19	5.35	Sm. inc.	Sm. inc.	Medium	Common	Good	Good	Infill ++	Infill ++	1	12
white ash	Fraxinus americana	WDL	Medium	50	260.85	5.22	No change	No change	Low	Common	Poor	Poor	Infill +	Infill +	0	13
eastern hemlock	Tsuga canadensis	NSH	High	36.9	231.17	6.26	No change	No change	Low	Common	Poor	Poor	Infill +	Infill +	0	14
pignut hickory	Carya glabra	WDL	Medium	59.5	220.11	3.7	Sm. inc.	Sm. inc.	Medium	Common	Good	Good	Infill ++	Infill ++	1	15
black cherry	Prunus serotina	WDL	Medium	51.2	214.18	4.18	No change	Sm. inc.	Low	Common	Poor	Fair	Infill +	Infill +	1	16
Virginia pine	Pinus virginiana	NDH	High	16.7	166.74	10	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good	Infill ++	Infill ++	1	17
sweet birch	Betula lenta	NDH	High	46.4	165.62	3.57	No change	No change	Low	Common	Poor	Poor	Infill +	Infill +	0	18
mockernut hickory	Carya alba	WDL	Medium	53.6	158.87	2.97	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good	Infill ++	Infill ++	1	19
yellow buckeye	Aesculus flava	NSL	Low	25	132.69	5.31	Sm. dec.	Lg. dec.	Low	Common	Poor	Very Poor	Infill +		0	20
blackgum	Nyssa sylvatica	WDL	Medium	54.8	115.82	2.12	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good	Infill ++	Infill ++	1	21
American basswood	Tilia americana	WSL	Medium	27.4	111.27	4.06	Sm. inc.	Sm. inc.	Medium	Common	Good	Good	Infill ++	Infill ++	1	22
sassafras	Sassafras albidum	WSL	Low	39.3	106.38	2.71	Lg. inc.	Sm. inc.	Medium	Common	Very Good	Good	Infill ++	Infill ++	1	23
cucumber tree	Magnolia acuminata	NSL	Low	35.7	95.17	2.67	No change	No change	Medium	Common	Fair	Fair	Infill +	Infill +	1	24
eastern redcedar	Juniperus virginiana	WDH	Medium	7.1	82.7	11.58	Sm. inc.	Lg. inc.	Medium	Common	Good	Very Good	Infill ++	Infill ++	2	25
shagbark hickory	Carya ovata	WSL	Medium	31	78.8	2.55	Sm. inc.	Sm. inc.	Medium	Common	Good	Good	Infill ++	Infill ++	1	26
bitternut hickory	Carya cordiformis	WSL	Low	21.4	72.38	3.38	Sm. inc.	Lg. inc.	High	Common	Very Good	Very Good	Infill ++	Infill ++	1	27
black walnut	Juglans nigra	WDH	Low	17.9	69.83	3.91	Sm. inc.	Lg. inc.	Medium	Common	Good	Very Good	Infill ++	Infill ++	1	28
American elm	Ulmus americana	WDH	Medium	11.9	67.31	5.65	Sm. inc.	Lg. inc.	Medium	Common	Good	Very Good	Infill ++	Infill ++	2	29
slippery elm	Ulmus rubra	WSL	Low	14.3	55.29	3.87	No change	Sm. inc.	Medium	Common	Fair	Good	Infill +	Infill ++	1	30
mountain or Fraser magnolia	Magnolia fraseri	NSL	Low	20.2	38.79	1.92	Sm. inc.	Sm. inc.	NA	Rare	Unknown	Unknown			0	31
flowering dogwood	Cornus florida	WDL	Medium	28.6	38.55	1.35	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	1	32
sycamore	Platanus occidentalis	NSL	Low	7.1	35.05	4.91	Sm. inc.	Sm. inc.	Medium	Rare	Fair	Fair	Infill +	Infill +	2	33
serviceberry	Amelanchier spp.	NSL	Low	23.8	33.07	1.39	No change	Sm. inc.	Medium	Rare	Poor	Fair	Infill +	Infill +	1	34
chinkapin oak	Quercus muehlenbergii	NSL	Medium	4.8	32.68	6.86	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	2	35
yellow birch	Betula alleghaniensis	NDL	High	6	32.51	5.46	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			2	36
striped maple	Acer pensylvanicum	NSL	Medium	16.7	29.11	1.75	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	37
pitch pine	Pinus rigida	NSH	High	11.9	29.05	2.44	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	1	38
ailanthus	Ailanthus altissima	NSL	FIA	3.6	28.96	8.11	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	39
butternut	Juglans cinerea	NSLX	FIA	6	28.85	4.84	Unknown	Unknown	Low	Rare	FIA Only	FIA Only			0	40
Table Mountain pine	Pinus pungens	NSL	Low	6	25.92	4.35	No change	No change	High	Rare	Fair	Fair	Infill +	Infill +	1	41
eastern hophornbeam; ironwood	Ostrya virginiana	WSL	Low	16.7	20.05	1.2	Sm. inc.	Lg. inc.	High	Rare	Good	Good		Infill ++	1	42
post oak	Quercus stellata	WDH	High	3.6	17.68	4.95	Lg. inc.	Lg. inc.	High	Rare	Good	Good			2	43
Norway spruce	Picea abies	NSH	FIA	3.6	16.82	4.71	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	44
American hornbeam; musclewood	Carpinus caroliniana	WSL	Low	10.7	14.52	1.36	Sm. dec.	Lg. inc.	Medium	Rare	Very Poor	Good		Infill ++	1	45
eastern redbud	Cercis canadensis	NSL	Low	6	12.98	2.18	Sm. inc.	Sm. inc.	Medium	Rare	Fair	Fair	Infill +	Infill +	1	46
American chestnut	Castanea dentata	NSLX	FIA	13.1	10.57	0.81	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	47
shortleaf pine	Pinus echinata	WDH	High	3.6	8.3	2.32	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	2	48
boxelder	Acer negundo	WSH	Low	3.6	6.35	1.77	No change	Sm. inc.	High	Rare	Fair	Good		Infill ++	2	49
red pine	Pinus resinosa	NSH	Medium	2.4	5.44	2.29	Lg. dec.	Lg. dec.	Low	Rare	Very Poor	Very Poor			0	50
green ash	Fraxinus pennsylvanica	WSH	Low	4.8	3.29	0.69	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	2	51
hackberry	Celtis occidentalis	WDH	Medium	2.4	3.07	1.29	No change	Lg. inc.	High	Rare	Fair	Good			2	52
paulownia	Paulownia tomentosa	NSL	FIA	2.4	3	1.26	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	53

**National Park**  
 Climate Change Atlas Tree Species  
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Common Name	Scientific Name	Range	MR	%Cell	FIAsum	FIAiv	ChngCl45	ChngCl85	Adap	Abund	Capabil45	Capabil85	SHIFT45	SHIFT85	SSO	N
southern red oak	Quercus falcata	WDL	Medium	1.2	2.42	2.03	Lg. inc.	Lg. inc.	High	Rare	Good	Good			2	54
pin cherry	Prunus pensylvanica	NSL	Low	1.2	0.92	0.77	Lg. dec.	Very Lg. dec.	Medium	Rare	Very Poor	Lost			0	55
American holly	Ilex opaca	NSL	Medium	1.2	0.75	0.63	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost			0	56
loblolly pine	Pinus taeda	WDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate ++	Migrate ++	3	57
northern white-cedar	Thuja occidentalis	WSH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	58
florida maple	Acer barbatum	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	59
black maple	Acer nigrum	NSH	Low	0	0	0	Unknown	Unknown	High	Absent	Unknown	Unknown			0	60
mountain maple	Acer spicatum	NSL	Low	0	0	0	Unknown	Unknown	High	Absent	Unknown	Unknown			0	61
pawpaw	Asimina triloba	NSL	Low	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0	62
cittamwood/gum bumelia	Sideroxylon lanuginosum ssp	NSL	Low	0	0	0	Unknown	New Habitat	High	Absent	Unknown	New Habitat			0	63
shellbark hickory	Carya laciniosa	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	64
black hickory	Carya texana	NDL	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			0	65
sugarberry	Celtis laevigata	NDH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +	3	66
common persimmon	Diospyros virginiana	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate ++	Migrate ++	3	67
black ash	Fraxinus nigra	WSH	Medium	0	0	0	Unknown	New Habitat	Low	Absent	Unknown	New Habitat			3	68
honeylocust	Gleditsia triacanthos	NSH	Low	0	0	0	Unknown	New Habitat	High	Absent	Unknown	New Habitat		Migrate +	3	69
sweetgum	Liquidambar styraciflua	WDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate ++	Migrate ++	3	70
southern magnolia	Magnolia grandiflora	NSL	Low	0	0	0	New Habitat	Unknown	Medium	Absent	New Habitat	Unknown			3	71
bigleaf magnolia	Magnolia macrophylla	NSL	Low	0	0	0	New Habitat	Unknown	Medium	Absent	New Habitat	Unknown			3	72
red mulberry	Morus rubra	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	73
blackjack oak	Quercus marilandica	NSL	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate +	Migrate ++	3	74
water oak	Quercus nigra	WDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +	3	75
Shumard oak	Quercus shumardii	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat		Migrate +	3	76
bluejack oak	Quercus incana	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	77
winged elm	Ulmus alata	WDL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate ++	3	78