

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
black cherry	Prunus serotina	WDL	Medium	85.6	2587.3	32.8	Lg. dec.	Lg. dec.	Low	Abundant	Poor	Poor			0	1
red maple	Acer rubrum	WDH	High	75.6	1021.3	14.7	Sm. dec.	Lg. dec.	High	Abundant	Good	Good			1	2
white ash	Fraxinus americana	WDL	Medium	68.9	510.7	8.6	Sm. dec.	Sm. dec.	Low	Abundant	Fair	Fair			0	3
sugar maple	Acer saccharum	WDH	High	37.8	422.6	12.9	No change	No change	High	Common	Good	Good			1	4
yellow-poplar	Liriodendron tulipifera	WDH	High	37.8	410.2	12.4	No change	Sm. dec.	High	Common	Good	Fair			1	5
black locust	Robinia pseudoacacia	NDH	Low	36.7	376.2	11.0	Lg. dec.	Sm. dec.	Medium	Common	Poor	Poor			0	6
northern red oak	Quercus rubra	WDH	Medium	48.9	361.9	8.4	No change	No change	High	Common	Good	Good			1	7
American elm	Ulmus americana	WDH	Medium	51.1	353.6	7.8	Sm. dec.	No change	Medium	Common	Poor	Fair			1	8
sassafras	Sassafras albidum	WSL	Low	33.3	215.8	6.7	No change	No change	Medium	Common	Fair	Fair			1	9
black oak	Quercus velutina	WDH	High	22.2	172.4	7.2	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	10
slippery elm	Ulmus rubra	WSL	Low	32.2	171.0	6.3	Sm. dec.	No change	Medium	Common	Poor	Fair			1	11
American beech	Fagus grandifolia	WDH	High	23.3	169.4	10.2	No change	Sm. dec.	Medium	Common	Fair	Poor			1	12
black walnut	Juglans nigra	WDH	Low	33.3	166.7	7.4	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	13
white oak	Quercus alba	WDH	Medium	23.3	139.4	6.6	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	14
sweet birch	Betula lenta	NDH	High	22.2	111.7	8.3	Lg. dec.	Lg. dec.	Low	Common	Very Poor	Very Poor			0	15
bitternut hickory	Carya cordiformis	WSL	Low	27.8	99.4	4.6	No change	Sm. inc.	High	Common	Good	Very Good			1	16
chestnut oak	Quercus prinus	NDH	High	10	83.9	7.8	No change	No change	High	Common	Good	Good	Infill ++	Infill ++	1	17
bigtooth aspen	Populus grandidentata	NSL	Medium	8.9	67.8	7.1	Very Lg. dec.	Very Lg. dec.	Medium	Common	Lost	Lost			0	18
eastern white pine	Pinus strobus	WDH	High	3.3	60.1	16.8	Lg. dec.	Lg. dec.	Low	Common	Very Poor	Very Poor			0	19
boxelder	Acer negundo	WSH	Low	11.1	56.5	7.0	No change	Lg. inc.	High	Common	Good	Very Good			1	20
blackgum	Nyssa sylvatica	WDL	Medium	20	49.2	2.8	Lg. inc.	Lg. inc.	High	Rare	Good	Good			1	21
scarlet oak	Quercus coccinea	WDL	Medium	7.8	48.5	5.8	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	1	22
sycamore	Platanus occidentalis	NSL	Low	5.6	47.8	8.0	No change	Sm. inc.	Medium	Rare	Poor	Fair	Infill +	Infill +	1	23
Osage-orange	Maclura pomifera	NDH	Medium	7.8	45.4	9.9	Sm. dec.	No change	High	Rare	Poor	Fair		Infill +	1	24
black maple	Acer nigrum	NSH	Low	2.2	44.2	18.6	Lg. dec.	Lg. dec.	High	Rare	Poor	Poor			0	25
ailanthus	Ailanthus altissima	NSL	FIA	14.4	43.6	4.0	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	26
black willow	Salix nigra	NSH	Low	1.1	39.7	33.3	Sm. dec.	No change	Low	Rare	Very Poor	Very Poor			2	27
eastern hophornbeam; ironw	Ostrya virginiana	WSL	Low	15.6	34.5	2.9	No change	Sm. inc.	High	Rare	Fair	Good			1	28
American basswood	Tilia americana	WSL	Medium	8.9	33.3	5.9	No change	Sm. dec.	Medium	Rare	Poor	Very Poor			1	29
shagbark hickory	Carya ovata	WSL	Medium	13.3	28.3	2.7	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			1	30
Scots pine	Pinus sylvestris	NSH	FIA	3.3	25.2	7.1	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	31
pignut hickory	Carya glabra	WDL	Medium	12.2	23.8	2.6	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	1	32
silver maple	Acer saccharinum	NSH	Low	2.2	23.0	9.6	Sm. dec.	No change	High	Rare	Poor	Fair		Infill +	2	33
cucumbertree	Magnolia acuminata	NSL	Low	6.7	21.0	2.9	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	34
mockernut hickory	Carya alba	WDL	Medium	12.2	18.5	2.0	Lg. inc.	Lg. inc.	High	Rare	Good	Good			1	35
American hornbeam; muscled	Carpinus caroliniana	WSL	Low	2.2	18.2	7.7	Sm. dec.	No change	Medium	Rare	Very Poor	Poor			1	36
honeylocust	Gleditsia triacanthos	NSH	Low	1.1	15.9	13.3	Sm. dec.	Sm. inc.	High	Rare	Poor	Good			2	37
hackberry	Celtis occidentalis	WDH	Medium	11.1	15.7	2.0	Lg. inc.	Lg. inc.	High	Rare	Good	Good	Infill ++	Infill ++	1	38
butternut	Juglans cinerea	NSLX	FIA	3.3	12.6	3.5	Unknown	Unknown	Low	Rare	FIA Only	FIA Only			0	39
Norway maple	Acer platanoides	NSL	FIA	3.3	9.4	2.6	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	40
flowering dogwood	Cornus florida	WDL	Medium	7.8	9.3	1.1	Sm. inc.	Sm. inc.	Medium	Rare	Fair	Fair			1	41
shingle oak	Quercus imbricaria	NDH	Medium	6.7	9.0	2.7	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	42
pin oak	Quercus palustris	NSH	Low	2.2	7.7	3.3	No change	No change	Low	Rare	Very Poor	Very Poor			2	43
striped maple	Acer pensylvanicum	NSL	Medium	2.2	6.2	2.6	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	44
red pine	Pinus resinosa	NSH	Medium	1.1	5.3	4.5	Very Lg. dec.	Very Lg. dec.	Low	Rare	Lost	Lost			0	45
pin cherry	Prunus pensylvanica	NSL	Low	3.3	4.3	1.2	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost			0	46
chokecherry	Prunus virginiana	NSLX	FIA	2.2	4.1	1.7	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	47

U.S. Census Bureau Urban Areas
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	1.1	3.7	3.1	No change	Sm. inc.	Medium	Rare	Poor	Fair	Infill +		2	48
yellow birch	Betula alleghaniensis	NDL	High	1.1	3.4	2.8	Lg. dec.	Very Lg. dec.	Medium	Rare	Very Poor	Lost			0	49
sweetgum	Liquidambar styraciflua	WDH	High	1.1	2.4	2.1	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	50
quaking aspen	Populus tremuloides	WDH	High	1.1	1.9	1.6	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost			0	51
serviceberry	Amelanchier spp.	NSL	Low	6.7	1.9	0.6	Sm. dec.	No change	Medium	Rare	Very Poor	Poor			1	52
Norway spruce	Picea abies	NSH	FIA	1.1	1.7	1.4	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	53
eastern cottonwood	Populus deltoides	NSH	Low	4.4	1.2	4.0	No change	No change	Medium	Rare	Poor	Poor			0	54
American holly	Ilex opaca	NSL	Medium	1.1	0.7	0.6	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost			0	55
green ash	Fraxinus pennsylvanica	WSH	Low	4.4	0.3	0.9	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	56
eastern redcedar	Juniperus virginiana	WDH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate ++	Migrate ++	3	57
white spruce	Picea glauca	NSL	Medium	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0	58
shortleaf pine	Pinus echinata	WDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate ++	3	59
loblolly pine	Pinus taeda	WDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate ++	3	60
Virginia pine	Pinus virginiana	NDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate ++	Migrate ++	3	61
eastern hemlock	Tsuga canadensis	NSH	High	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat	Likely +	Likely +	3	62
florida maple	Acer barbatum	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat		Migrate +	3	63
Ohio buckeye	Aesculus glabra	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	64
cittamwood/gum bumelia	Sideroxylon lanuginosum ssp.	NSL	Low	0	0	0	Unknown	New Habitat	High	Absent	Unknown	New Habitat			0	65
black hickory	Carya texana	NDL	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			0	66
sugarberry	Celtis laevigata	NDH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	67
eastern redbud	Cercis canadensis	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate ++	Migrate ++	3	68
common persimmon	Diospyros virginiana	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat		Migrate +	3	69
mountain or Fraser magnolia	Magnolia fraseri	NSL	Low	0	0	0	Unknown	Unknown	Low	Absent	Unknown	Unknown			0	70
sourwood	Oxydendrum arboreum	NDL	High	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	71
southern red oak	Quercus falcata	WDL	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate +	Migrate ++	3	72
blackjack oak	Quercus marilandica	NSL	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat		Migrate ++	3	73
chinkapin oak	Quercus muehlenbergii	NSL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Likely +	Likely +	3	74
post oak	Quercus stellata	WDH	High	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate ++	Migrate ++	3	75
bluejack oak	Quercus incana	NSL	Low	0	0	0	Unknown	New Habitat	Medium	Absent	Unknown	New Habitat			0	76
winged elm	Ulmus alata	WDL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate ++	3	77