

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
quaking aspen	Populus tremuloides	WDH	High	39.3	582.1	23.7	Sm. dec.	Sm. dec.	Medium	Abundant	Fair	Fair	Infill +	Infill +	0	1
northern red oak	Quercus rubra	WDH	Medium	48.3	429.5	15.2	Sm. dec.	Lg. dec.	High	Common	Fair	Fair	Infill +	Infill +	1	2
American elm	Ulmus americana	WDH	Medium	70.8	376.3	10.0	No change	No change	Medium	Common	Fair	Fair	Infill +	Infill +	1	3
boxelder	Acer negundo	WSH	Low	67.4	359.6	13.6	No change	Sm. dec.	High	Common	Good	Fair	Infill ++	Infill +	1	4
northern pin oak	Quercus ellipsoidalis	NSH	Medium	46.1	324.4	13.1	Sm. dec.	Sm. dec.	High	Common	Fair	Fair	Infill +	Infill +	1	5
American basswood	Tilia americana	WSL	Medium	38.2	315.8	16.8	Sm. dec.	Sm. dec.	Medium	Common	Poor	Poor	Infill +	Infill +	0	6
green ash	Fraxinus pennsylvanica	WSH	Low	59.6	283.0	10.3	Sm. inc.	Sm. inc.	Medium	Common	Good	Good	Infill ++	Infill ++	1	7
white oak	Quercus alba	WDH	Medium	20.2	188.4	13.1	Sm. inc.	No change	High	Common	Very Good	Good	Infill ++	Infill ++	1	8
red pine	Pinus resinosa	NSH	Medium	15.7	186.3	21.0	No change	No change	Low	Common	Poor	Poor	Infill +	Infill +	0	9
bur oak	Quercus macrocarpa	NDH	Medium	52.8	186.3	10.0	Lg. inc.	Sm. inc.	High	Common	Very Good	Very Good	Infill ++	Infill ++	1	10
black cherry	Prunus serotina	WDL	Medium	51.7	149.9	7.6	Sm. inc.	Sm. inc.	Low	Common	Fair	Fair	Infill +	Infill +	1	11
eastern cottonwood	Populus deltoides	NSH	Low	15.7	130.5	19.9	Sm. inc.	Lg. inc.	Medium	Common	Good	Very Good	Infill ++	Infill ++	1	12
paper birch	Betula papyrifera	WDH	High	33.7	128.4	6.1	No change	No change	Medium	Common	Fair	Fair	Infill +	Infill +	1	13
red maple	Acer rubrum	WDH	High	16.9	117.3	7.9	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good	Infill ++	Infill ++	1	14
eastern hophornbeam; ironw	Ostrya virginiana	WSL	Low	36	91.2	6.4	No change	No change	High	Common	Good	Good	Infill ++	Infill ++	1	15
black willow	Salix nigra	NSH	Low	15.7	80.1	15.0	Lg. dec.	No change	Low	Common	Very Poor	Poor		Infill +	2	16
black ash	Fraxinus nigra	WSH	Medium	16.9	72.0	8.3	Sm. inc.	No change	Low	Common	Fair	Poor	Infill +	Infill +	1	17
balsam fir	Abies balsamea	NDH	High	1.1	62.5	50.0	No change	No change	Low	Common	Poor	Poor	Infill +	Infill +	2	18
northern white-cedar	Thuja occidentalis	WSH	High	1.1	55.9	44.7	No change	No change	Medium	Common	Fair	Fair	Infill +	Infill +	2	19
silver maple	Acer saccharinum	NSH	Low	20.2	50.9	10.0	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good	Infill ++	Infill ++	1	20
slippery elm	Ulmus rubra	WSL	Low	32.6	50.5	4.4	No change	No change	Medium	Common	Fair	Fair	Infill +	Infill +	1	21
eastern redcedar	Juniperus virginiana	WDH	Medium	31.5	41.8	3.9	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	1	22
eastern white pine	Pinus strobus	WDH	High	12.4	41.8	4.7	Sm. inc.	No change	Low	Rare	Poor	Very Poor	Infill +		2	23
sugar maple	Acer saccharum	WDH	High	16.9	40.0	9.8	Lg. inc.	Lg. inc.	High	Rare	Good	Good	Infill ++	Infill ++	2	24
white spruce	Picea glauca	NSL	Medium	9	35.3	8.2	No change	Sm. dec.	Medium	Rare	Poor	Very Poor	Infill +		1	25
tamarack (native)	Larix laricina	NSH	High	3.4	33.9	9.0	No change	No change	Low	Rare	Very Poor	Very Poor			2	26
black locust	Robinia pseudoacacia	NDH	Low	5.6	29.7	14.2	No change	Sm. inc.	Medium	Rare	Poor	Fair	Infill +	Infill +	2	27
hackberry	Celtis occidentalis	WDH	Medium	32.6	29.2	3.0	Lg. inc.	Lg. inc.	High	Rare	Good	Good	Infill ++	Infill ++	2	28
black oak	Quercus velutina	WDH	High	1.1	23.3	18.6	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	29
butternut	Juglans cinerea	NSLX	FIA	21.3	21.6	3.5	Unknown	Unknown	Low	Rare	FIA Only	FIA Only			0	30
black walnut	Juglans nigra	WDH	Low	10.1	20.1	6.6	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	2	31
jack pine	Pinus banksiana	NSH	Medium	6.7	13.2	5.3	No change	No change	High	Rare	Fair	Fair	Infill +	Infill +	2	32
Siberian elm	Ulmus pumila	NDH	FIA	10.1	13.0	8.4	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	33
serviceberry	Amelanchier spp.	NSL	Low	2.2	11.0	4.4	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	34
bitternut hickory	Carya cordiformis	WSL	Low	19.1	10.0	4.1	Lg. inc.	Lg. inc.	High	Rare	Good	Good	Infill ++	Infill ++	2	35
chokecherry	Prunus virginiana	NSLX	FIA	10.1	9.2	1.3	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	36
yellow birch	Betula alleghaniensis	NDL	High	3.4	5.8	1.6	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			2	37
Scots pine	Pinus sylvestris	NSH	FIA	2.2	5.4	2.2	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	38
white ash	Fraxinus americana	WDL	Medium	6.7	4.3	2.0	Lg. inc.	Lg. inc.	Low	Rare	Fair	Fair	Infill +	Infill +	2	39
American mountain-ash	Sorbus americana	NSL	Low	1.1	2.3	1.9	Sm. dec.	Sm. dec.	Low	Rare	Very Poor	Very Poor			0	40
peachleaf willow	Salix amygdaloides	NSLX	FIA	9	2.2	3.5	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	41
river birch	Betula nigra	NSL	Low	1.1	1.2	0.9	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost			0	42
red mulberry	Morus rubra	NSL	Low	4.5	0.4	1.4	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	43
striped maple	Acer pensylvanicum	NSL	Medium	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	44
mountain maple	Acer spicatum	NSL	Low	0	0	0	Unknown	Unknown	High	Absent	Unknown	Unknown			0	45
American hornbeam; musclev	Carpinus caroliniana	WSL	Low	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0	46
shagbark hickory	Carya ovata	WSL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Likely +	Likely +	3	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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black hickory	<i>Carya texana</i>	NDL	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			0	48
mockernut hickory	<i>Carya alba</i>	WDL	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat			3	49
eastern redbud	<i>Cercis canadensis</i>	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +	3	50
honeylocust	<i>Gleditsia triacanthos</i>	NSH	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	51
Osage-orange	<i>Maclura pomifera</i>	NDH	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat		Migrate +	3	52
sycamore	<i>Platanus occidentalis</i>	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	53
bigtooth aspen	<i>Populus grandidentata</i>	NSL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Likely +	Likely +	3	54
swamp white oak	<i>Quercus bicolor</i>	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	55
blackjack oak	<i>Quercus marilandica</i>	NSL	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat			3	56
Shumard oak	<i>Quercus shumardii</i>	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat			0	57
post oak	<i>Quercus stellata</i>	WDH	High	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat			3	58
sassafras	<i>Sassafras albidum</i>	WSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	59