S44 E70

One x One Degree

Climate Change Atlas Tree Species

Current and Potential Future Habitat, Capability, and Migration

Landscape Change Research Group
Iverson, Peters, Prasad, Matthews
USFS Northern Research Station
Delaware, OH

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	98.8	2063.13	15.06	No change	No change	High	Abundant	Very Good	Very Good			1	1
balsam fir	Abies balsamea	NDH	High	91.5	1461.01	10.86	Sm. dec.	Sm. dec.	Low	Abundant	Fair	Fair			0	2
eastern hemlock	Tsuga canadensis	NSH	High	73.4	1100.2	10.34	No change	Sm. dec.	Low	Abundant	Fair	Fair			0	3
eastern white pine	Pinus strobus	WDH	High	79	1097.45	10.14	No change	No change	Low	Abundant	Fair	Fair			0	4
sugar maple	Acer saccharum	WDH	High	80.6	815.45	7.19	Sm. inc.	Sm. inc.	High	Abundant	Very Good	Very Good			1	5
American beech	Fagus grandifolia	WDH	High	82	793.25	7.55	No change	No change	Medium	Abundant	Good	Good			1	6
yellow birch	Betula alleghaniensis	NDL	High	84.5	690.88	5.81	No change	Sm. dec.	Medium	Abundant	Good	Fair			1	7
red spruce	Picea rubens	NDH	High	74.1	659.09	6.34	Sm. dec.	Sm. dec.	Low	Abundant	Fair	Fair			0	8
paper birch	Betula papyrifera	WDH	High	91.5	650.14	4.85	Sm. dec.	Sm. dec.	Medium	Abundant	Fair	Fair			0	9
northern red oak	Quercus rubra	WDH	Medium	65.6	548.15	6.19	Lg. inc.	Lg. inc.	High	Abundant	Very Good	Very Good			1	10
white ash	Fraxinus americana	WDL	Medium	76.1	449.87	4.58	Sm. inc.	Sm. inc.	Low	Common	Fair	Fair			1	11
quaking aspen	Populus tremuloides	WDH	High	63.3	339.04	3.89	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	12
northern white-cedar	Thuja occidentalis	WSH	High	33	222.09	4.25	No change	No change	Medium	Common	Fair	Fair			1	13
bigtooth aspen	Populus grandidentata	NSL	Medium	44.9	221.75	4.15	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	14
striped maple	Acer pensylvanicum	NSL	Medium	57.9	138.81	1.82	Sm. dec.	Sm. dec.	Medium	Common	Poor	Poor			0	15
gray birch	Betula populifolia	NSL	Low	35.7	116.8	2.54	No change	No change	Medium	Common	Fair	Fair			1	16
white spruce	Picea glauca	NSL	Medium	25.3	83.78	2.48	No change	Sm. inc.	Medium	Common	Fair	Good			1	17
black spruce	Picea mariana	NSH	High	4	70.88	10.11	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	18
eastern hophornbeam; ironw	Ostrya virginiana	WSL	Low	31.1	68.56	1.66	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good			1	19
American elm	Ulmus americana	WDH	Medium	18.5	52.78	2.02	Lg. dec.	No change	Medium	Common	Poor	Fair	Infill +	Infill +	1	20
black cherry	Prunus serotina	WDL	Medium	30.6	46.7	1.09	Lg. inc.	Lg. inc.	Low	Rare	Fair	Fair			1	21
black ash	Fraxinus nigra	WSH	Medium	15.3	33.75	1.25	No change	No change	Low	Rare	Very Poor	Very Poor			0	22
American basswood	Tilia americana	WSL	Medium	11.4	25.54	1.51	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			1	23
tamarack (native)	Larix laricina	NSH	High	5.8	20.11	2.09	No change	No change	Low	Rare	Very Poor	Very Poor			2	24
pitch pine	Pinus rigida	NSH	High	0.7	19.63	11.39	No change	No change	Medium	Rare	Poor	Poor		Infill +	2	25
pin cherry	Prunus pensylvanica	NSL	Low	12.8	17.82	0.72	Sm. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	26
red pine	Pinus resinosa	NSH	Medium	7.2	14.85	1.69	Sm. inc.	Lg. inc.	Low	Rare	Poor	Fair	Infill +	Infill +	2	27
American mountain-ash	Sorbus americana	NSL	Low	11.1	11.27	0.49	Lg. dec.	Lg. dec.	Low	Rare	Very Poor	Very Poor			0	28
black oak	Quercus velutina	WDH	High	6.1	11.21	1.59	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	2	29
mountain maple	Acer spicatum	NSL	Low	12.2	9.87	0.56	Lg. dec.	Lg. dec.	High	Rare	Poor	Poor			1	30
white oak	Quercus alba	WDH	Medium	2.2	9.15	1.51	Lg. inc.	Lg. inc.	High	Rare	Good	Good			2	31
green ash	Fraxinus pennsylvanica	WSH	Low	2.8	5.76	1.4	Sm. inc.	Lg. inc.	Medium	Rare	Fair	Good		Infill ++	2	32
black locust	Robinia pseudoacacia	NDH	Low	1.1	3.39	3	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	2	33
serviceberry	Amelanchier spp.	NSL	Low	3.4	2.84	0.83	No change	Sm. inc.	Medium	Rare	Poor	Fair	Infill +	Infill +	1	34
American hornbeam; muscle	Carpinus caroliniana	WSL	Low	1.1	1.28	1.13	No change	Lg. inc.	Medium	Rare	Poor	Good			2	35
eastern redcedar	Juniperus virginiana	WDH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate ++	3	36
sweet birch	Betula lenta	NDH	High	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat	Likely +	Likely +	3	37
bitternut hickory	Carya cordiformis	WSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat		Migrate +	3	38
pignut hickory	Carya glabra	WDL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	39
pecan	Carya illinoinensis	NSH	Low	0	0	0	Unknown	Unknown	Low	Absent	Unknown	Unknown			0	40
shagbark hickory	Carya ovata	WSL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	41
mockernut hickory	Carya alba	WDL	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat		Migrate +	3	42
flowering dogwood	Cornus florida	WDL	Medium	0	0	0	Unknown	New Habitat	Medium	Absent	Unknown	New Habitat			3	43
black walnut	Juglans nigra	WDH	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +	3	44
sweetgum	Liquidambar styraciflua	WDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	45
yellow-poplar	Liriodendron tulipifera	WDH	High	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat		Migrate ++	3	46
blackgum	Nyssa sylvatica	WDL	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	47
redbay	Persea borbonia	NSL	Low	0	0	0	Unknown	Unknown	High	Absent	Unknown	Unknown			0	48
sycamore	Platanus occidentalis	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	49
swamp white oak	Quercus bicolor	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +	3	50
scarlet oak	Quercus coccinea	WDL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate ++	3	51
northern pin oak	Quercus ellipsoidalis	NSH	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat			0	52
chestnut oak	Quercus prinus	NDH	High	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate +	Migrate ++	3	53

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Common Name	Scientific Name	Range	MR	%Cell	FIAsum	FIAiv	ChngCl45	ChngCl85	Adap	Abund	Capabil45	Capabil85	SHIFT45	SHIFT85	SSO	N
post oak	Quercus stellata	WDH	High	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat			3	54
sassafras	Sassafras albidum	WSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	55
slippery elm	Ulmus rubra	WSL	Low	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0	56