S39 E94

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
hackberry	Celtis occidentalis	WDH	Medium	67.7	254.26	13.27	No change	Sm. dec.	High	Common	Good	Fair			1	1
black walnut	Juglans nigra	WDH	Low	72.9	235.21	7.67	Sm. dec.	Lg. dec.	Medium	Common	Poor	Poor			0	2
American elm	Ulmus americana	WDH	Medium	71.5	189.39	10.67	No change	No change	Medium	Common	Fair	Fair			1	3
Osage-orange	Maclura pomifera	NDH	Medium	42.9	187.2	10.98	No change	No change	High	Common	Good	Good			1	4
honeylocust	Gleditsia triacanthos	NSH	Low	56.5	182.18	9.79	Sm. dec.	Sm. dec.	High	Common	Fair	Fair			1	5
northern red oak	Quercus rubra	WDH	Medium	34.2	68.93	5.63	Sm. dec.	Sm. dec.	High	Common	Fair	Fair	Infill +	Infill +	1	6
chinkapin oak	Quercus muehlenbergii	NSL	Medium	34.9	65.45	6.49	Sm. dec.	Sm. dec.	Medium	Common	Poor	Poor			0	7
silver maple	Acer saccharinum	NSH	Low	18.3	63.48	14.89	No change	Sm. inc.	High	Common	Good	Very Good	Infill ++	Infill ++	1	8
bur oak	Quercus macrocarpa	NDH	Medium	26.4	58.73	7.63	Sm. inc.	No change	High	Common	Very Good	Good	Infill ++	Infill ++	1	9
shagbark hickory	Carya ovata	WSL	Medium	36.1	50.75	2.68	Sm. dec.	Lg. dec.	Medium	Common	Poor	Poor			0	10
eastern redcedar	Juniperus virginiana	WDH	Medium	27.7	47.44	5.38	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	1	11
red mulberry	Morus rubra	NSL	Low	59.6	44.76	3.74	Sm. inc.	Sm. inc.	Medium	Rare	Fair	Fair			1	12
eastern cottonwood	Populus deltoides	NSH	Low	19.9	41.63	7.91	Sm. dec.	No change	Medium	Rare	Very Poor	Poor		Infill +	1	13
bitternut hickory	Carya cordiformis	WSL	Low	40.6	39.88	2.77	Sm. inc.	Sm. inc.	High	Rare	Good	Good			1	14
shingle oak	Quercus imbricaria	NDH	Medium	42.6	39.42	5.33	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	15
black cherry	Prunus serotina	WDL	Medium	43.5	37.57	4.03	No change	No change	Low	Rare	Very Poor	Very Poor			0	16
American basswood	Tilia americana	WSL	Medium	24.4	35.48	4.06	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	17
eastern redbud	Cercis canadensis	NSL	Low	27.4	33.08	3.45	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	18
eastern hophornbeam; ironw	Ostrya virginiana	WSL	Low	31.9	30.4	2.51	Lg. dec.	Lg. dec.	High	Rare	Poor	Poor			1	19
boxelder	Acer negundo	WSH	Low	51.6	29.66	5.46	No change	Sm. inc.	High	Rare	Fair	Good			1	20
green ash	Fraxinus pennsylvanica	WSH	Low	26.6	24.41	2.84	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	1	21
slippery elm	Ulmus rubra	WSL	Low	42.2	20.1	2.16	Sm. inc.	Lg. inc.	Medium	Rare	Fair	Good			1	22
black locust	Robinia pseudoacacia	NDH	Low	17.2	19.95	9.91	No change	Sm. inc.	Medium	Rare	Poor	Fair	Infill +	Infill +	1	23
white ash	Fraxinus americana	WDL	Medium	28.1	18.83	1.71	Lg. inc.	Lg. inc.	Low	Rare	Fair	Fair	Infill +	Infill +	1	24
black willow	Salix nigra	NSH	Low	28.4	9.33	4.69	Lg. inc.	Lg. inc.	Low	Rare	Fair	Fair		Infill +	1	25
Kentucky coffeetree	Gymnocladus dioicus	NSLX	FIA	10.9	7.5	1.31	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	26
white oak	Quercus alba	WDH	Medium	17.4	7.47	3.3	Lg. inc.	Lg. inc.	High	Rare	Good	Good	Infill ++	Infill ++	2	27
swamp white oak	Quercus bicolor	NSL	Low	1	7.07	6.66	Sm. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	28
black oak	Quercus velutina	WDH	High	18.6	6.72	1.91	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	2	29
sugar maple	Acer saccharum	WDH	High	5.1	6.58	3.14	No change	No change	High	Rare	Fair	Fair	Infill +	Infill +	2	30
Ohio buckeye	Aesculus glabra	NSL	Low	16.8	6.34	6.05	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost			0	31
sycamore	Platanus occidentalis	NSL	Low	13.9	4.78	1.6	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	2	32
post oak	Quercus stellata	WDH	High	4.2	2.78	10.56	Lg. inc.	Lg. inc.	High	Rare	Good	Good			2	33
flowering dogwood	Cornus florida	WDL	Medium	8.6	2.36	2.42	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			2	34
pawpaw	Asimina triloba	NSL	Low	13.1	1.88	1.63	Very Lg. dec.	Lg. dec.	Medium	Rare	Lost	Very Poor			0	35
white mulberry	Morus alba	NSL	FIA	0.6	0.87	0.15	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	36
sugarberry	Celtis laevigata	NDH	Medium	4.2	0.63	2.4	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	37
pin oak	Quercus palustris	NSH	Low	4.8	0.56	0.57	Lg. inc.	Lg. inc.	Low	Rare	Fair	Fair		Infill +	2	38
shellbark hickory	Carya laciniosa	NSL	Low	4.2	0.4	1.52	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	39
Siberian elm	Ulmus pumila	NDH	FIA	3.3	0.29	0.86	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	40
mockernut hickory	Carya alba	WDL	Medium	0.8	0.27	0.2	Lg. dec.	Lg. inc.	High	Rare	Poor	Good			2	41
pecan	Carya illinoinensis	NSH	Low	0.8	0.21	0.15	Lg. inc.	Lg. inc.	Low	Rare	Fair	Fair	Infill +	Infill +	2	42
common persimmon	Diospyros virginiana	NSL	Low	4.2	0.1	0.42	Lg. inc.	Lg. inc.	High	Rare	Good	Good			2	43
blackjack oak	Quercus marilandica	NSL	Medium	4.2	0.09	0.36	Lg. inc.	Lg. inc.	High	Rare	Good	Good			2	44
ashe juniper	Juniperus ashei	NDH	High	0	0	0	New Habitat	New Habitat	NA	Absent	New Habitat	New Habitat			0	45
striped maple	Acer pensylvanicum	NSL	Medium	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	46
serviceberry	Amelanchier spp.	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	47
cittamwood/gum bumelia	Sideroxylon lanuginosum ssp	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	48
black hickory	Carya texana	NDL	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	49
bigleaf magnolia	Magnolia macrophylla	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	50
pin cherry	Prunus pensylvanica	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	51
water oak	Quercus nigra	WDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +	3	52
Shumard oak	Quercus shumardii	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat		Migrate +	3	53

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live oak	Quercus virginiana	NDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			0	54
sassafras	Sassafras albidum	WSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +	3	55
winged elm	Ulmus alata	WDL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate ++	3	56
cedar elm	Ulmus crassifolia	NDH	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat			3	57