

Section 251H

EcoMap 2007

Climate Change Atlas Tree Species

USDA Forest Service
Northern Research Station
Landscape Change Research Group
Iverson, Peters, Prasad, Matthews

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
American elm	Ulmus americana	WDH	Medium	41.4	97.3	14.7	No change	No change	Medium	Common	Fair	Fair	Infill +	Infill +	2	1
hackberry	Celtis occidentalis	WDH	Medium	37.3	93.1	12.5	No change	No change	High	Common	Good	Good	Infill ++	Infill ++	2	2
eastern redcedar	Juniperus virginiana	WDH	Medium	26.8	92.3	14.9	No change	No change	Medium	Common	Fair	Fair	Infill +	Infill +	2	3
bur oak	Quercus macrocarpa	NDH	Medium	20.1	79.6	17.1	Sm. dec.	Sm. dec.	High	Common	Fair	Fair	Infill +	Infill +	2	4
red mulberry	Morus rubra	NSL	Low	39.8	70.4	11.6	Sm. dec.	Sm. dec.	Medium	Common	Poor	Poor	Infill +	Infill +	2	5
black walnut	Juglans nigra	WDH	Low	20.3	59.2	9.0	No change	No change	Medium	Common	Fair	Fair	Infill +	Infill +	2	6
honeylocust	Gleditsia triacanthos	NSH	Low	25.6	57.0	14.1	No change	No change	High	Common	Good	Good	Infill ++	Infill ++	2	7
eastern cottonwood	Populus deltoides	NSH	Low	15.6	52.6	22.4	No change	No change	Medium	Common	Fair	Fair	Infill +	Infill +	2	8
Osage-orange	Maclura pomifera	NDH	Medium	19.5	50.6	13.3	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good	Infill ++	Infill ++	2	9
chinkapin oak	Quercus muehlenbergii	NSL	Medium	8.1	41.8	10.3	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			2	10
green ash	Fraxinus pennsylvanica	WSH	Low	26.8	39.2	13.4	Sm. inc.	Sm. inc.	Medium	Rare	Fair	Fair	Infill +	Infill +	2	11
American basswood	Tilia americana	WSL	Medium	4.5	22.0	7.2	Sm. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			2	12
bitternut hickory	Carya cordiformis	WSL	Low	8.6	20.0	4.1	No change	No change	High	Rare	Fair	Fair	Infill +	Infill +	2	13
black willow	Salix nigra	NSH	Low	7.9	18.6	23.0	No change	No change	Low	Rare	Very Poor	Very Poor			2	14
boxelder	Acer negundo	WSH	Low	8.1	18.3	7.5	No change	No change	High	Rare	Fair	Fair	Infill +	Infill +	2	15
Siberian elm	Ulmus pumila	NDH	FIA	9.3	15.5	16.5	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	16
northern red oak	Quercus rubra	WDH	Medium	4.1	12.5	4.5	No change	No change	High	Rare	Fair	Fair	Infill +	Infill +	2	17
silver maple	Acer saccharinum	NSH	Low	4.7	11.7	14.3	No change	No change	High	Rare	Fair	Fair	Infill +	Infill +	2	18
shagbark hickory	Carya ovata	WSL	Medium	3.8	10.8	5.8	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			2	19
slippery elm	Ulmus rubra	WSL	Low	14.1	10.5	4.2	No change	Sm. inc.	Medium	Rare	Poor	Fair	Infill +	Infill +	2	20
eastern redbud	Cercis canadensis	NSL	Low	4.3	10.3	3.9	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	2	21
pin oak	Quercus palustris	NSH	Low	0.2	10.2	9.7	Lg. dec.	Sm. dec.	Low	Rare	Very Poor	Very Poor			0	22
black oak	Quercus velutina	WDH	High	2.5	8.2	5.7	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	2	23
black cherry	Prunus serotina	WDL	Medium	3.9	8.1	3.6	Sm. dec.	Sm. dec.	Low	Rare	Very Poor	Very Poor			2	24
eastern hophornbeam; ironw	Ostrya virginiana	WSL	Low	5.3	7.7	2.8	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor	Infill +	Infill +	2	25
black locust	Robinia pseudoacacia	NDH	Low	1.6	6.9	30.7	Sm. dec.	No change	Medium	Rare	Very Poor	Poor		Infill +	2	26
sycamore	Platanus occidentalis	NSL	Low	2.1	6.3	3.6	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	2	27
white mulberry	Morus alba	NSL	FIA	1.3	5.4	21.9	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	28
Kentucky coffeetree	Gymnocladus dioicus	NSLX	FIA	4.3	2.0	2.7	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			2	29
white ash	Fraxinus americana	WDL	Medium	1.8	1.8	2.7	Sm. inc.	Sm. inc.	Low	Rare	Poor	Poor	Infill +	Infill +	2	30
peachleaf willow	Salix amygdaloides	NSLX	FIA	0.6	1.3	25.9	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	31
post oak	Quercus stellata	WDH	High	0	0.5	0.7	Lg. inc.	Lg. inc.	High	Rare	Good	Good			2	32
serviceberry	Amelanchier spp.	NSL	Low	0.1	0.4	1.0	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	33
shingle oak	Quercus imbricaria	NDH	Medium	0	0.3	0.4	No change	No change	Medium	Rare	Poor	Poor			0	34
pawpaw	Asimina triloba	NSL	Low	0.2	0.2	1.7	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	35
Ohio buckeye	Aesculus glabra	NSL	Low	0.3	0.2	0.6	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost			0	36
red pine	Pinus resinosa	NSH	Medium	0.4	0.2	1.9	Sm. dec.	Sm. dec.	Low	Rare	Very Poor	Very Poor			0	37
white oak	Quercus alba	WDH	Medium	0.2	0.1	1.0	No change	Sm. inc.	High	Rare	Fair	Good			2	38
overcup oak	Quercus lyrata	NSL	Medium	0.7	0.1	3.3	Sm. dec.	No change	Low	Rare	Very Poor	Very Poor			0	39
wild plum	Prunus americana	NSLX	FIA	0.7	0.0	0.9	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	40
common persimmon	Diospyros virginiana	NSL	Low	0	0.0	0.0	Lg. inc.	Lg. inc.	High	Rare	Good	Good			2	41
blackjack oak	Quercus marilandica	NSL	Medium	0	0.0	0.0	Lg. inc.	Lg. inc.	High	Rare	Good	Good			2	42
ashe juniper	Juniperus ashei	NDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			0	43
striped maple	Acer pensylvanicum	NSL	Medium	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	44
sugar maple	Acer saccharum	WDH	High	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	45
yellow birch	Betula alleghaniensis	NDL	High	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0	46
cittamwood/gum bumelia	Sideroxylon lanuginosum ssp.	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	47



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pignut hickory	<i>Carya glabra</i>	WDL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	48
pecan	<i>Carya illinoensis</i>	NSH	Low	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat	Likely +	Likely +	3	49
black hickory	<i>Carya texana</i>	NDL	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	50
sugarberry	<i>Celtis laevigata</i>	NDH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate ++	3	51
flowering dogwood	<i>Cornus florida</i>	WDL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Likely +	Likely +	3	52
blue ash	<i>Fraxinus quadrangulata</i>	NSL	Low	0	0	0	Unknown	Unknown	Low	Absent	Unknown	Unknown			0	53
cucumbertree	<i>Magnolia acuminata</i>	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	54
bigleaf magnolia	<i>Magnolia macrophylla</i>	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	55
pin cherry	<i>Prunus pensylvanica</i>	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	56
water oak	<i>Quercus nigra</i>	WDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	57
Shumard oak	<i>Quercus shumardii</i>	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat		Migrate +	3	58
live oak	<i>Quercus virginiana</i>	NDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			0	59
winged elm	<i>Ulmus alata</i>	WDL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	60
cedar elm	<i>Ulmus crassifolia</i>	NDH	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat			3	61