

Section 212S

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
sugar maple	Acer saccharum	WDH	High	88	2755.8	20.2	Sm. dec.	Sm. dec.	High	Abundant	Good	Good			1	1
red maple	Acer rubrum	WDH	High	93.1	1949.8	13.2	No change	No change	High	Abundant	Very Good	Very Good			1	2
balsam fir	Abies balsamea	NDH	High	91.1	1149.5	7.7	Sm. dec.	Sm. dec.	Low	Abundant	Fair	Fair			0	3
northern white-cedar	Thuja occidentalis	WSH	High	68.4	838.3	7.7	No change	No change	Medium	Abundant	Good	Good			1	4
quaking aspen	Populus tremuloides	WDH	High	60	790.8	6.6	Sm. inc.	Sm. inc.	Medium	Abundant	Very Good	Very Good			1	5
eastern hemlock	Tsuga canadensis	NSH	High	57.5	569.2	6.4	No change	No change	Low	Abundant	Fair	Fair			0	6
yellow birch	Betula alleghaniensis	NDL	High	73.2	488.7	4.2	Sm. dec.	Sm. dec.	Medium	Common	Poor	Poor			0	7
black spruce	Picea mariana	NSH	High	48	397.8	6.0	Sm. dec.	Sm. dec.	Medium	Common	Poor	Poor			0	8
paper birch	Betula papyrifera	WDH	High	70.5	374.6	3.4	Sm. inc.	No change	Medium	Common	Good	Fair			1	9
white spruce	Picea glauca	NSL	Medium	73.4	348.9	2.9	Sm. dec.	Sm. dec.	Medium	Common	Poor	Poor			0	10
eastern white pine	Pinus strobus	WDH	High	45.9	341.5	4.9	Lg. inc.	Lg. inc.	Low	Common	Good	Good			1	11
red pine	Pinus resinosa	NSH	Medium	21.4	325.5	5.9	Sm. inc.	Sm. inc.	Low	Common	Fair	Fair			1	12
jack pine	Pinus banksiana	NSH	Medium	15.9	318.6	11.6	Sm. dec.	Sm. dec.	High	Common	Fair	Fair			1	13
northern red oak	Quercus rubra	WDH	Medium	38.3	243.2	4.7	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	14
black cherry	Prunus serotina	WDL	Medium	48.7	212.5	2.7	Lg. inc.	Lg. inc.	Low	Common	Good	Good			1	15
bigtooth aspen	Populus grandidentata	NSL	Medium	27	172.3	4.1	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	16
tamarack (native)	Larix laricina	NSH	High	19.9	168.7	5.3	Sm. inc.	Sm. inc.	Low	Common	Fair	Fair			1	17
American basswood	Tilia americana	WSL	Medium	29.5	114.6	2.8	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	18
black ash	Fraxinus nigra	WSH	Medium	33	101.8	1.9	Lg. inc.	Lg. inc.	Low	Common	Good	Good			1	19
eastern hophornbeam; ironw	Ostrya virginiana	WSL	Low	43.2	87.9	1.5	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good			1	20
American beech	Fagus grandifolia	WDH	High	4.9	76.1	5.7	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			2	21
balsam poplar	Populus balsamifera	NSH	Medium	6.6	54.4	1.9	Lg. dec.	Lg. dec.	Medium	Common	Poor	Poor			0	22
white ash	Fraxinus americana	WDL	Medium	11.6	53.9	3.3	Lg. inc.	Lg. inc.	Low	Common	Good	Good	Infill ++	Infill ++	1	23
American elm	Ulmus americana	WDH	Medium	11.8	26.3	1.2	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	1	24
chokecherry	Prunus virginiana	NSLX	FIA	6.5	19.0	2.9	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	25
pin cherry	Prunus pensylvanica	NSL	Low	5.2	18.9	2.7	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	26
serviceberry	Amelanchier spp.	NSL	Low	10.9	13.1	0.8	Lg. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	27
mountain maple	Acer spicatum	NSL	Low	7.9	9.7	0.6	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor			1	28
silver maple	Acer saccharinum	NSH	Low	1.8	7.7	4.1	Sm. inc.	Lg. inc.	High	Rare	Good	Good			2	29
green ash	Fraxinus pennsylvanica	WSH	Low	6	7.6	0.7	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	2	30
Scots pine	Pinus sylvestris	NSH	FIA	0.9	6.6	6.9	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	31
striped maple	Acer pensylvanicum	NSL	Medium	5.5	5.9	0.5	Sm. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			2	32
black willow	Salix nigra	NSH	Low	0.9	4.8	5.1	Sm. dec.	No change	Low	Rare	Very Poor	Very Poor			2	33
American mountain-ash	Sorbus americana	NSL	Low	3.2	3.6	0.8	Very Lg. dec.	Very Lg. dec.	Low	Rare	Lost	Lost			0	34
northern pin oak	Quercus ellipsoidalis	NSH	Medium	0.5	0.7	0.1	Lg. inc.	Lg. inc.	High	Rare	Good	Good			2	35
boxelder	Acer negundo	WSH	Low	0.1	0.1	0.0	Lg. inc.	Lg. inc.	High	Rare	Good	Good			2	36
ashe juniper	Juniperus ashei	NDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			0	37
eastern redcedar	Juniperus virginiana	WDH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate ++	3	38
red spruce	Picea rubens	NDH	High	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat			0	39
sweet birch	Betula lenta	NDH	High	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat			0	40
American hornbeam; muscle	Carpinus caroliniana	WSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +	3	41
bitternut hickory	Carya cordiformis	WSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat		Migrate +	3	42
pignut hickory	Carya glabra	WDL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	43
shagbark hickory	Carya ovata	WSL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +	3	44
mockernut hickory	Carya alba	WDL	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat			0	45
sugarberry	Celtis laevigata	NDH	Medium	0	0	0	Unknown	New Habitat	Medium	Absent	Unknown	New Habitat			0	46
flowering dogwood	Cornus florida	WDL	Medium	0	0	0	Unknown	New Habitat	Medium	Absent	Unknown	New Habitat			0	47



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black walnut	Juglans nigra	WDH	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +	3	48
yellow-poplar	Liriodendron tulipifera	WDH	High	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat			3	49
cucumbertree	Magnolia acuminata	NSL	Low	0	0	0	Unknown	New Habitat	Medium	Absent	Unknown	New Habitat			0	50
bigleaf magnolia	Magnolia macrophylla	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	51
blackgum	Nyssa sylvatica	WDL	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat			3	52
sycamore	Platanus occidentalis	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			0	53
eastern cottonwood	Populus deltoides	NSH	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +	3	54
white oak	Quercus alba	WDH	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate ++	Migrate ++	3	55
swamp white oak	Quercus bicolor	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	56
scarlet oak	Quercus coccinea	WDL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			0	57
bur oak	Quercus macrocarpa	NDH	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	58
chinkapin oak	Quercus muehlenbergii	NSL	Medium	0	0	0	Unknown	New Habitat	Medium	Absent	Unknown	New Habitat			0	59
chestnut oak	Quercus prinus	NDH	High	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat			0	60
post oak	Quercus stellata	WDH	High	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat			0	61
black oak	Quercus velutina	WDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate ++	Migrate ++	3	62
live oak	Quercus virginiana	NDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			0	63
black locust	Robinia pseudoacacia	NDH	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	64
sassafras	Sassafras albidum	WSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +	3	65
cedar elm	Ulmus crassifolia	NDH	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat			0	66
slippery elm	Ulmus rubra	WSL	Low	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0	67