



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
red maple	Acer rubrum	WDH	High	58.2	927.3	14.6	Sm. dec.	Sm. dec.	High	Abundant	Good	Good			1	1
sugar maple	Acer saccharum	WDH	High	57.5	856.6	14.2	No change	Sm. dec.	High	Abundant	Very Good	Good			1	2
white ash	Fraxinus americana	WDL	Medium	68.2	775.0	11.5	Sm. dec.	Sm. dec.	Low	Abundant	Fair	Fair			0	3
green ash	Fraxinus pennsylvanica	WSH	Low	43.8	530.9	19.8	No change	No change	Medium	Abundant	Good	Good			1	4
black cherry	Prunus serotina	WDL	Medium	50	344.6	6.0	Sm. inc.	No change	Low	Common	Fair	Poor			1	5
quaking aspen	Populus tremuloides	WDH	High	33.3	289.7	8.8	Lg. dec.	Lg. dec.	Medium	Common	Poor	Poor			0	6
eastern white pine	Pinus strobus	WDH	High	17	256.1	10.1	Sm. dec.	Lg. dec.	Low	Common	Poor	Very Poor			0	7
eastern hemlock	Tsuga canadensis	NSH	High	22.2	231.1	6.6	Lg. dec.	Lg. dec.	Low	Common	Very Poor	Very Poor			0	8
American elm	Ulmus americana	WDH	Medium	50.5	201.4	4.6	Sm. inc.	Lg. inc.	Medium	Common	Good	Very Good			1	9
silver maple	Acer saccharinum	NSH	Low	21.3	199.8	16.0	No change	Sm. inc.	High	Common	Good	Very Good			1	10
American basswood	Tilia americana	WSL	Medium	41.7	191.0	6.5	No change	Sm. dec.	Medium	Common	Fair	Poor			1	11
American beech	Fagus grandifolia	WDH	High	35.3	178.4	4.6	No change	No change	Medium	Common	Fair	Fair			1	12
bitternut hickory	Carya cordiformis	WSL	Low	32.5	159.8	6.4	Sm. dec.	No change	High	Common	Fair	Good			1	13
northern red oak	Quercus rubra	WDH	Medium	24.7	143.8	6.3	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	14
eastern cottonwood	Populus deltoides	NSH	Low	13.1	140.8	9.7	No change	No change	Medium	Common	Fair	Fair			1	15
boxelder	Acer negundo	WSH	Low	20.1	116.4	10.4	No change	Sm. inc.	High	Common	Good	Very Good			1	16
Norway spruce	Picea abies	NSH	FIA	11.9	101.2	8.3	Unknown	Unknown	NA	Common	NNIS	NNIS			0	17
Scots pine	Pinus sylvestris	NSH	FIA	8.9	95.7	11.3	Unknown	Unknown	NA	Common	NNIS	NNIS			0	18
shagbark hickory	Carya ovata	WSL	Medium	28.7	79.7	5.0	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	19
black walnut	Juglans nigra	WDH	Low	20.2	78.7	5.7	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	20
black willow	Salix nigra	NSH	Low	15.7	78.1	9.1	Lg. dec.	No change	Low	Common	Very Poor	Poor			0	21
eastern hophornbeam; ironw	Ostrya virginiana	WSL	Low	29.5	74.3	2.8	No change	No change	High	Common	Good	Good			1	22
black locust	Robinia pseudoacacia	NDH	Low	9.9	72.0	8.7	No change	No change	Medium	Common	Fair	Fair			1	23
bigtooth aspen	Populus grandidentata	NSL	Medium	7.8	61.6	5.2	Sm. dec.	Lg. dec.	Medium	Common	Poor	Poor	Infill +	Infill +	0	24
yellow birch	Betula alleghaniensis	NDL	High	14.7	60.6	2.7	Lg. dec.	Lg. dec.	Medium	Common	Poor	Poor			0	25
white spruce	Picea glauca	NSL	Medium	5.2	54.9	19.8	Lg. dec.	Lg. dec.	Medium	Common	Poor	Poor			0	26
pignut hickory	Carya glabra	WDL	Medium	12.7	40.5	6.2	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	1	27
red pine	Pinus resinosa	NSH	Medium	4.3	37.5	8.6	Lg. dec.	Lg. dec.	Low	Rare	Very Poor	Very Poor			2	28
eastern redcedar	Juniperus virginiana	WDH	Medium	4.8	35.9	12.0	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	2	29
black oak	Quercus velutina	WDH	High	4.7	34.3	4.6	Sm. inc.	Lg. inc.	Medium	Rare	Fair	Good	Infill +	Infill ++	2	30
American hornbeam; muscle	Carpinus caroliniana	WSL	Low	19.3	31.3	1.5	Lg. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	31
northern white-cedar	Thuja occidentalis	WSH	High	2.4	29.3	8.5	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	32
white oak	Quercus alba	WDH	Medium	8.1	27.2	3.6	Lg. inc.	Lg. inc.	High	Rare	Good	Good	Infill ++	Infill ++	2	33
black ash	Fraxinus nigra	WSH	Medium	10.8	27.2	3.2	Lg. dec.	Lg. dec.	Low	Rare	Very Poor	Very Poor			0	34
swamp white oak	Quercus bicolor	NSL	Low	13.7	22.0	4.5	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	1	35
pin cherry	Prunus pennsylvanica	NSL	Low	4.2	19.0	3.4	Lg. dec.	Very Lg. dec.	Medium	Rare	Very Poor	Lost			0	36
yellow-poplar	Liriodendron tulipifera	WDH	High	10	16.9	1.9	Lg. inc.	Lg. inc.	High	Rare	Good	Good	Infill ++	Infill ++	2	37
serviceberry	Amelanchier spp.	NSL	Low	8.9	16.3	1.0	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	38
butternut	Juglans cinerea	NSLX	FIA	5.5	16.2	3.6	Unknown	Unknown	Low	Rare	FIA Only	FIA Only			0	39
blackgum	Nyssa sylvatica	WDL	Medium	3	15.9	4.9	No change	Sm. inc.	High	Rare	Fair	Good	Infill +	Infill ++	2	40
chokecherry	Prunus virginiana	NSLX	FIA	13.2	14.7	2.5	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	41
bur oak	Quercus macrocarpa	NDH	Medium	8.4	12.2	3.9	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor		Infill +	2	42
gray birch	Betula populifolia	NSL	Low	1.6	9.0	2.7	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	43
balsam fir	Abies balsamea	NDH	High	0.2	8.2	8.4	Very Lg. dec.	Very Lg. dec.	Low	Rare	Lost	Lost			0	44
striped maple	Acer pensylvanicum	NSL	Medium	2.9	8.0	1.2	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	45
tamarack (native)	Larix laricina	NSH	High	0.9	7.8	5.3	Sm. dec.	Lg. dec.	Low	Rare	Very Poor	Very Poor			0	46
chestnut oak	Quercus prinus	NDH	High	1.4	7.5	1.8	Lg. inc.	Lg. inc.	High	Rare	Good	Good			2	47

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sycamore	Platanus occidentalis	NSL	Low	0.5	7.1	7.1	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	48
slippery elm	Ulmus rubra	WSL	Low	3.5	6.5	2.3	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	2	49
pitch pine	Pinus rigida	NSH	High	2.2	6.4	5.5	Sm. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	50
black spruce	Picea mariana	NSH	High	0.4	6.1	15.3	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	51
sweet birch	Betula lenta	NDH	High	3.3	6.1	0.9	Sm. inc.	Sm. inc.	Low	Rare	Poor	Poor	Infill +	Infill +	2	52
paper birch	Betula papyrifera	WDH	High	1	5.6	1.3	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			2	53
northern pin oak	Quercus ellipsoidalis	NSH	Medium	0.4	3.6	8.9	No change	No change	High	Rare	Fair	Fair	Infill +	Infill +	2	54
jack pine	Pinus banksiana	NSH	Medium	0.2	3.6	4.3	Very Lg. dec.	Very Lg. dec.	High	Rare	Lost	Lost			0	55
red spruce	Picea rubens	NDH	High	1	3.2	2.4	Lg. dec.	Lg. dec.	Low	Rare	Very Poor	Very Poor			0	56
cucumber tree	Magnolia acuminata	NSL	Low	3.3	2.9	1.1	Sm. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	57
Norway maple	Acer platanoides	NSL	FIA	2.5	2.6	2.1	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	58
sassafras	Sassafras albidum	WSL	Low	0.6	2.5	1.3	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	59
pin oak	Quercus palustris	NSH	Low	3.6	2.3	2.4	Lg. inc.	Lg. inc.	Low	Rare	Fair	Fair	Infill +	Infill +	2	60
shellbark hickory	Carya laciniosa	NSL	Low	0.1	1.4	1.1	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	61
Table Mountain pine	Pinus pungens	NSL	Low	0.2	0.4	0.5	Lg. dec.	Very Lg. dec.	High	Rare	Poor	Lost			0	62
Virginia pine	Pinus virginiana	NDH	High	0.2	0.2	0.2	Lg. dec.	Lg. inc.	Medium	Rare	Very Poor	Good			2	63
shortleaf pine	Pinus echinata	WDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	64
loblolly pine	Pinus taeda	WDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate ++	3	65
florida maple	Acer barbatum	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat			0	66
Ohio buckeye	Aesculus glabra	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	67
cittamwood/gum bumelia	Sideroxylon lanuginosum ssp.	NSL	Low	0	0	0	Unknown	New Habitat	High	Absent	Unknown	New Habitat			0	68
black hickory	Carya texana	NDL	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			0	69
mockernut hickory	Carya alba	WDL	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Likely +	Likely +	3	70
sugarberry	Celtis laevigata	NDH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			0	71
hackberry	Celtis occidentalis	WDH	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	72
eastern redbud	Cercis canadensis	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	73
flowering dogwood	Cornus florida	WDL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Likely +	Likely +	3	74
common persimmon	Diospyros virginiana	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat		Migrate +	3	75
honeylocust	Gleditsia triacanthos	NSH	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	76
American holly	Ilex opaca	NSL	Medium	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0	77
sweetgum	Liquidambar styraciflua	WDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate ++	3	78
Osage-orange	Maclura pomifera	NDH	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat		Migrate +	3	79
bigleaf magnolia	Magnolia macrophylla	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	80
mountain or Fraser magnolia	Magnolia fraseri	NSL	Low	0	0	0	Unknown	Unknown	Low	Absent	Unknown	Unknown			0	81
red mulberry	Morus rubra	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +	3	82
sourwood	Oxydendrum arboreum	NDL	High	0	0	0	Unknown	New Habitat	High	Absent	Unknown	New Habitat		Migrate +	3	83
balsam poplar	Populus balsamifera	NSH	Medium	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0	84
scarlet oak	Quercus coccinea	WDL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	85
southern red oak	Quercus falcata	WDL	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat		Migrate +	3	86
cherrybark oak; swamp red o.	Quercus pagoda	NSL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	87
shingle oak	Quercus imbricaria	NDH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	88
overcup oak	Quercus lyrata	NSL	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat			3	89
blackjack oak	Quercus marilandica	NSL	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat			3	90
chinkapin oak	Quercus muehlenbergii	NSL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	91
willow oak	Quercus phellos	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +	3	92
Shumard oak	Quercus shumardii	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat			3	93
post oak	Quercus stellata	WDH	High	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat			3	94

# MidAtlantic 2

## NIACS EVAS Region Climate Change Atlas Tree Species

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

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Common Name	Scientific Name	Range	MR	%Cell	FIAsum	FIaiv	ChngCl45	ChngCl85	Adap	Abund	Capabil45	Capabil85	SHIFT45	SHIFT85	SSO	N
live oak	<i>Quercus virginiana</i>	NDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			0	95
American mountain-ash	<i>Sorbus americana</i>	NSL	Low	0	0	0	Unknown	Unknown	Low	Absent	Unknown	Unknown			0	96
winged elm	<i>Ulmus alata</i>	WDL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	97
cedar elm	<i>Ulmus crassifolia</i>	NDH	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat			0	98