



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	84.5	1672.5	15.0	Sm. dec.	Lg. dec.	High	Abundant	Good	Good			1	1
black cherry	Prunus serotina	WDL	Medium	76.2	1442.7	14.9	Lg. dec.	Lg. dec.	Low	Abundant	Poor	Poor			0	2
sugar maple	Acer saccharum	WDH	High	72.4	1030.3	10.3	No change	Sm. dec.	High	Abundant	Very Good	Good			1	3
yellow-poplar	Liriodendron tulipifera	WDH	High	61.4	825.7	11.4	No change	Sm. dec.	High	Abundant	Very Good	Good			1	4
northern red oak	Quercus rubra	WDH	Medium	59.4	532.9	5.9	Sm. inc.	Sm. inc.	High	Abundant	Very Good	Very Good			1	5
white ash	Fraxinus americana	WDL	Medium	58.2	416.6	5.7	No change	No change	Low	Common	Poor	Poor			0	6
American beech	Fagus grandifolia	WDH	High	41.4	410.4	6.1	No change	No change	Medium	Common	Fair	Fair			1	7
chestnut oak	Quercus prinus	NDH	High	38.5	369.9	6.6	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good			1	8
black locust	Robinia pseudoacacia	NDH	Low	48.5	366.8	5.6	No change	No change	Medium	Common	Fair	Fair			1	9
sweet birch	Betula lenta	NDH	High	48.1	334.1	5.5	Sm. dec.	Sm. dec.	Low	Common	Poor	Poor			0	10
white oak	Quercus alba	WDH	Medium	39.9	331.8	6.4	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	11
sassafras	Sassafras albidum	WSL	Low	45.4	226.1	4.1	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	12
yellow birch	Betula alleghaniensis	NDL	High	20.8	192.1	6.2	Lg. dec.	Lg. dec.	Medium	Common	Poor	Poor			0	13
black oak	Quercus velutina	WDH	High	26.5	153.8	3.9	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	14
slippery elm	Ulmus rubra	WSL	Low	27.7	150.3	4.1	Sm. dec.	No change	Medium	Common	Poor	Fair			1	15
eastern hemlock	Tsuga canadensis	NSH	High	19.2	148.6	5.8	No change	No change	Low	Common	Poor	Poor			0	16
American elm	Ulmus americana	WDH	Medium	23.6	146.9	6.1	No change	Sm. inc.	Medium	Common	Fair	Good			1	17
American basswood	Tilia americana	WSL	Medium	24.2	136.8	3.5	No change	No change	Medium	Common	Fair	Fair			1	18
blackgum	Nyssa sylvatica	WDL	Medium	40.3	132.2	2.7	Sm. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	19
red spruce	Picea rubens	NDH	High	10.1	123.6	7.1	Lg. dec.	Lg. dec.	Low	Common	Very Poor	Very Poor			2	20
scarlet oak	Quercus coccinea	WDL	Medium	21.4	117.0	3.9	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	21
black walnut	Juglans nigra	WDH	Low	21.4	110.0	4.8	Sm. inc.	Lg. inc.	Medium	Common	Good	Very Good			1	22
shagbark hickory	Carya ovata	WSL	Medium	27.2	101.6	2.7	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	23
pignut hickory	Carya glabra	WDL	Medium	30.1	101.6	2.6	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	24
sycamore	Platanus occidentalis	NSL	Low	11.8	99.8	8.1	Sm. inc.	Lg. inc.	Medium	Common	Good	Very Good			1	25
sourwood	Oxydendrum arboreum	NDL	High	17.4	94.6	4.8	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good			1	26
boxelder	Acer negundo	WSH	Low	13.3	89.0	6.9	Sm. dec.	Sm. inc.	High	Common	Fair	Very Good			1	27
mockernut hickory	Carya alba	WDL	Medium	23.8	76.7	2.5	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	28
bitternut hickory	Carya cordiformis	WSL	Low	20.5	71.0	3.0	Sm. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	29
Norway spruce	Picea abies	NSH	FIA	3.8	59.2	11.7	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	30
pin cherry	Prunus pensylvanica	NSL	Low	11.6	59.1	3.0	Lg. dec.	Lg. dec.	Medium	Common	Poor	Poor			0	31
cucumbertree	Magnolia acuminata	NSL	Low	28.1	56.3	1.5	Sm. inc.	No change	Medium	Common	Good	Fair			1	32
bigtooth aspen	Populus grandidentata	NSL	Medium	10.2	55.8	2.8	Lg. dec.	Lg. dec.	Medium	Common	Poor	Poor			0	33
eastern white pine	Pinus strobus	WDH	High	6	54.4	6.7	No change	Sm. inc.	Low	Common	Poor	Fair			1	34
American hornbeam; musclev	Carpinus caroliniana	WSL	Low	13.4	52.6	3.1	Lg. dec.	No change	Medium	Common	Poor	Fair			1	35
striped maple	Acer pensylvanicum	NSL	Medium	18.1	43.5	1.5	Sm. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	36
serviceberry	Amelanchier spp.	NSL	Low	25.7	39.3	1.1	Sm. dec.	No change	Medium	Rare	Very Poor	Poor			1	37
Scots pine	Pinus sylvestris	NSH	FIA	3.3	38.1	10.1	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	38
ailanthus	Ailanthus altissima	NSL	FIA	6.8	31.0	4.6	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	39
red pine	Pinus resinosa	NSH	Medium	2.2	23.3	5.4	Very Lg. dec.	Very Lg. dec.	Low	Rare	Lost	Lost			0	40
eastern hophornbeam; ironw	Ostrya virginiana	WSL	Low	14.2	23.3	1.0	No change	Lg. inc.	High	Rare	Fair	Good			1	41
yellow buckeye	Aesculus flava	NSL	Low	1.7	21.2	6.2	No change	No change	Low	Rare	Very Poor	Very Poor			0	42
Osage-orange	Maclura pomifera	NDH	Medium	4	18.4	7.3	Sm. dec.	No change	High	Rare	Poor	Fair	Infill +	Infill +	2	43
hackberry	Celtis occidentalis	WDH	Medium	6.1	15.9	2.7	No change	Sm. inc.	High	Rare	Fair	Good	Infill +	Infill ++	1	44
flowering dogwood	Cornus florida	WDL	Medium	12.9	15.8	1.1	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			1	45
mountain or Fraser magnolia	Magnolia fraseri	NSL	Low	6.3	15.5	2.0	No change	No change	Low	Rare	Very Poor	Very Poor			0	46
quaking aspen	Populus tremuloides	WDH	High	0.7	15.1	5.9	Very Lg. dec.	Lg. dec.	Medium	Rare	Lost	Very Poor			0	47

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black maple	Acer nigrum	NSH	Low	3.6	13.5	3.7	Lg. dec.	Lg. dec.	High	Rare	Poor	Poor			0	48
silver maple	Acer saccharinum	NSH	Low	1.6	11.1	7.1	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor		Infill +	2	49
honeysuckle	Gleditsia triacanthos	NSH	Low	0.5	7.0	13.3	Sm. dec.	Sm. inc.	High	Rare	Poor	Good			2	50
eastern redbud	Cercis canadensis	NSL	Low	2	5.8	1.9	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	2	51
Virginia pine	Pinus virginiana	NDH	High	1.4	5.3	2.1	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	1	52
butternut	Juglans cinerea	NSLX	FIA	1.6	4.9	1.3	Unknown	Unknown	Low	Rare	FIA Only	FIA Only			0	53
pawpaw	Asimina triloba	NSL	Low	1.6	4.5	2.9	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	54
pin oak	Quercus palustris	NSH	Low	0.8	3.0	2.0	Sm. dec.	No change	Low	Rare	Very Poor	Very Poor			2	55
balsam fir	Abies balsamea	NDH	High	0.5	2.8	5.4	Very Lg. dec.	Very Lg. dec.	Low	Rare	Lost	Lost			0	56
wild plum	Prunus americana	NSLX	FIA	0.5	2.8	5.3	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	57
paulownia	Paulownia tomentosa	NSL	FIA	0.5	2.5	4.8	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	58
black willow	Salix nigra	NSH	Low	0.8	2.3	2.1	Sm. dec.	Sm. inc.	Low	Rare	Very Poor	Poor		Infill +	2	59
American mountain-ash	Sorbus americana	NSL	Low	1.7	2.3	0.8	Sm. dec.	Sm. dec.	Low	Rare	Very Poor	Very Poor			0	60
Norway maple	Acer platanoides	NSL	FIA	0.1	2.3	0.9	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	61
green ash	Fraxinus pennsylvanica	WSH	Low	0.1	1.9	0.6	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	62
American holly	Ilex opaca	NSL	Medium	0.5	1.5	2.8	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	63
black ash	Fraxinus nigra	WSH	Medium	0.5	1.3	2.5	Lg. dec.	Lg. dec.	Low	Rare	Very Poor	Very Poor			0	64
sweetgum	Liquidambar styraciflua	WDH	High	0.2	1.1	0.9	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	65
Table Mountain pine	Pinus pungens	NSL	Low	0.1	1.0	0.2	No change	No change	High	Rare	Fair	Fair		Infill +	2	66
common persimmon	Diospyros virginiana	NSL	Low	0.7	0.8	0.5	Lg. inc.	Lg. inc.	High	Rare	Good	Good			2	67
mountain maple	Acer spicatum	NSL	Low	1	0.8	0.3	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor			0	68
pitch pine	Pinus rigida	NSH	High	0.2	0.7	0.1	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	2	69
Ohio buckeye	Aesculus glabra	NSL	Low	0.5	0.7	1.3	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	70
chokecherry	Prunus virginiana	NSLX	FIA	0.5	0.5	0.9	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	71
shingle oak	Quercus imbricaria	NDH	Medium	0.5	0.4	0.8	No change	No change	Medium	Rare	Poor	Poor		Infill +	2	72
American chestnut	Castanea dentata	NSLX	FIA	1	0.4	0.3	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	73
Atlantic white-cedar	Chamaecyparis thyoides	NSH	Low	0	0	0	Unknown	Unknown	Low	Absent	Unknown	Unknown			0	74
eastern redcedar	Juniperus virginiana	WDH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Likely +	Likely +	3	75
white spruce	Picea glauca	NSL	Medium	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0	76
shortleaf pine	Pinus echinata	WDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Likely +	Likely +	3	77
longleaf pine	Pinus palustris	NSH	Medium	0	0	0	Unknown	New Habitat	Medium	Absent	Unknown	New Habitat		Migrate +	3	78
loblolly pine	Pinus taeda	WDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate ++	3	79
northern white-cedar	Thuja occidentalis	WSH	High	0	0	0	Unknown	New Habitat	Medium	Absent	Unknown	New Habitat			3	80
florida maple	Acer barbatum	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat		Migrate +	3	81
gray birch	Betula populifolia	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	82
cittamwood/gum bumelia	Sideroxylon lanuginosum ssp.	NSL	Low	0	0	0	Unknown	New Habitat	High	Absent	Unknown	New Habitat			0	83
pecan	Carya illinoensis	NSH	Low	0	0	0	Unknown	New Habitat	Low	Absent	Unknown	New Habitat		Migrate +	3	84
shellbark hickory	Carya laciniosa	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	85
black hickory	Carya texana	NDL	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			0	86
sugarberry	Celtis laevigata	NDH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate ++	3	87
southern magnolia	Magnolia grandiflora	NSL	Low	0	0	0	New Habitat	Unknown	Medium	Absent	New Habitat	Unknown			3	88
red mulberry	Morus rubra	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Likely +	Likely +	3	89
southern red oak	Quercus falcata	WDL	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate +	Migrate ++	3	90
cherrybark oak; swamp red o.	Quercus pagoda	NSL	Medium	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	91
blackjack oak	Quercus marilandica	NSL	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat		Migrate ++	3	92
chinkapin oak	Quercus muehlenbergii	NSL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	93
Shumard oak	Quercus shumardii	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat		Migrate +	3	94

# HUC 050200 Monongahela

## HUC 6 Watershed Climate Change Atlas Tree Species

USDA Forest Service  
Northern Research Station  
Landscape Change Research Group  
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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	Migrate ++	Migrate ++	3	95
bluejack oak	Quercus incana	NSL	Low	0	0	0	Unknown	New Habitat	Medium	Absent	Unknown	New Habitat			3	96
winged elm	Ulmus alata	WDL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate ++	3	97