

# Timucuan Ecological and Historic Preserve

# National Park

## 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
slash pine	Pinus elliottii	NDH	High	88	4025.46	45.1	Sm. dec.	Sm. dec.	Medium	Abundant	Fair	Fair			0	1
loblolly pine	Pinus taeda	WDH	High	45.9	934.51	20.49	Sm. inc.	Sm. inc.	Medium	Abundant	Very Good	Very Good			1	2
red maple	Acer rubrum	WDH	High	64.9	529.68	7.71	No change	No change	High	Abundant	Very Good	Very Good			1	3
swamp tupelo	Nyssa biflora	NDH	Medium	62.9	414.8	6.32	Sm. inc.	Sm. inc.	Low	Common	Fair	Fair			1	4
water oak	Quercus nigra	WDH	High	55.9	349.08	6.13	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	5
laurel oak	Quercus laurifolia	NDH	Medium	61.2	328.58	5.63	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	6
sweetgum	Liquidambar styraciflua	WDH	High	54.2	270.57	4.98	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	7
live oak	Quercus virginiana	NDH	High	40.2	244.39	6.92	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	8
loblolly-bay	Gordonia lasianthus	NSH	Medium	47.1	241.97	5.52	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	9
pond cypress	Taxodium ascendens	NSH	Medium	31.6	218.57	6.85	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	10
longleaf pine	Pinus palustris	NSH	Medium	26.6	190.99	7.94	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	11
redbay	Persea borbonia	NSL	Low	53.5	182.43	3.22	No change	No change	High	Common	Good	Good			1	12
turkey oak	Quercus laevis	NSH	Medium	9.4	131.53	12.35	Sm. dec.	Sm. dec.	High	Common	Fair	Fair	Infill +	Infill +	1	13
bald cypress	Taxodium distichum	NSH	Medium	17	115.52	6.62	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	14
pumpkin ash	Fraxinus profunda	NSH	FIA	6.7	112.2	11.18	Unknown	Unknown	NA	Common	FIA Only	FIA Only			0	15
sweetbay	Magnolia virginiana	NSL	Medium	44.4	104.5	2.49	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	16
pond pine	Pinus serotina	NSH	Medium	15.9	87.74	6.59	Sm. inc.	Sm. inc.	Low	Common	Fair	Fair			1	17
green ash	Fraxinus pennsylvanica	WSH	Low	13.4	80.31	5.92	Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1	18
water tupelo	Nyssa aquatica	NSH	Medium	6.1	52.56	8.58	Sm. dec.	Sm. dec.	Low	Common	Poor	Poor			0	19
cabbage palmetto	Sabal palmetto	NDH	Medium	13	50.88	3.1	Lg. inc.	Lg. inc.	NA	Common	Unknown	Unknown			0	20
southern magnolia	Magnolia grandiflora	NSL	Low	13.8	43.17	2.58	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	1	21
sand pine	Pinus clausa	NDH	High	2.1	33.97	13.23	No change	No change	Low	Rare	Very Poor	Very Poor			2	22
pignut hickory	Carya glabra	WDL	Medium	6.8	30.16	3.78	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	23
black willow	Salix nigra	NSH	Low	2.4	29.09	11.88	No change	No change	Low	Rare	Very Poor	Very Poor			2	24
blackgum	Nyssa sylvatica	WDL	Medium	7.4	27.6	2.1	Sm. inc.	Sm. inc.	High	Rare	Good	Good	Infill ++	Infill ++	1	25
American elm	Ulmus americana	WDH	Medium	10.3	25.28	2.02	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	2	26
yellow-poplar	Liriodendron tulipifera	WDH	High	4.8	14.81	3	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor			1	27
American hornbeam; muscle	Carpinus caroliniana	WSL	Low	9.4	12.91	1.22	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	1	28
post oak	Quercus stellata	WDH	High	4.9	12.04	2.45	No change	Lg. inc.	High	Rare	Fair	Good		Infill ++	2	29
American holly	Ilex opaca	NSL	Medium	12.4	9.57	1.01	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	30
sugarberry	Celtis laevigata	NDH	Medium	1.2	7.79	6.36	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	2	31
black cherry	Prunus serotina	WDL	Medium	8.9	7.44	1.23	Sm. inc.	Lg. inc.	Low	Rare	Poor	Fair	Infill +	Infill +	1	32
water elm	Planera aquatica	NSL	Low	1.2	4.78	3.9	No change	No change	Medium	Rare	Poor	Poor		Infill +	2	33
Carolina ash	Fraxinus caroliniana	NSL	FIA	2.4	4.74	1.94	Unknown	Unknown	NA	Rare	FIA Only	FIA Only			0	34
common persimmon	Diospyros virginiana	NSL	Low	5.8	4.65	0.7	Lg. dec.	Sm. dec.	High	Rare	Poor	Poor			1	35
winged elm	Ulmus alata	WDL	Medium	1.2	4.19	3.42	No change	Sm. inc.	Medium	Rare	Poor	Fair		Infill +	2	36
ogechee tupelo	Nyssa ogeche	NSLX	FIA	1.2	4.1	3.35	Unknown	Unknown	Low	Rare	FIA Only	FIA Only			0	37
eastern hophornbeam; ironw	Ostrya virginiana	WSL	Low	3.7	3.92	1.06	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor			0	38
southern red oak	Quercus falcata	WDL	Medium	3.6	3.23	0.85	Sm. inc.	Lg. inc.	High	Rare	Good	Good			2	39
eastern redcedar	Juniperus virginiana	WDH	Medium	2.4	2.35	0.96	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	2	40
Shumard oak	Quercus shumardii	NSL	Low	1.1	2.2	1.64	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor			0	41
bluejack oak	Quercus incana	NSL	Low	2.4	1.74	0.71	Sm. dec.	No change	Medium	Rare	Very Poor	Poor		Infill +	2	42
white oak	Quercus alba	WDH	Medium	2.4	1.71	0.69	Very Lg. dec.	Sm. dec.	High	Rare	Lost	Poor		Infill +	2	43
mockernut hickory	Carya alba	WDL	Medium	2.4	1.65	0.67	Very Lg. dec.	Very Lg. dec.	High	Rare	Lost	Lost			0	44
chinkapin oak	Quercus muehlenbergii	NSL	Medium	1.2	1.41	1.15	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	45
sycamore	Platanus occidentalis	NSL	Low	1.1	1.1	0.82	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost			0	46
slippery elm	Ulmus rubra	WSL	Low	1.2	0.65	0.53	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost			0	47
overcup oak	Quercus lyrata	NSL	Medium	1.2	0.61	0.5	No change	No change	Low	Rare	Very Poor	Very Poor			2	48
ashe juniper	Juniperus ashei	NDH	High	0	0	0	New Habitat	New Habitat	NA	Absent	New Habitat	New Habitat			0	49
shortleaf pine	Pinus echinata	WDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +	3	50
striped maple	Acer pensylvanicum	NSL	Medium	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	51
serviceberry	Amelanchier spp.	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	52
cittamwood/gum bumelia	Sideroxylon lanuginosum ssp	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat			0	53



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pecan	<i>Carya illinoensis</i>	NSH	Low	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat		Migrate +	3	54	
shagbark hickory	<i>Carya ovata</i>	WSL	Medium	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown				0	55
flowering dogwood	<i>Cornus florida</i>	WDL	Medium	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown				0	56
white ash	<i>Fraxinus americana</i>	WDL	Medium	0	0	0	Unknown	Unknown	Low	Modeled	Unknown	Unknown				0	57
silverbell	<i>Halesia spp.</i>	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown				0	58
bigleaf magnolia	<i>Magnolia macrophylla</i>	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown				0	59
mountain or Fraser magnolia	<i>Magnolia fraseri</i>	NSL	Low	0	0	0	Unknown	Unknown	NA	Absent	Unknown	Unknown				0	60
red mulberry	<i>Morus rubra</i>	NSL	Low	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown				0	61
scarlet oak	<i>Quercus coccinea</i>	WDL	Medium	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown				0	62
cherrybark oak; swamp red oak	<i>Quercus pagoda</i>	NSL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +	3	63	
bur oak	<i>Quercus macrocarpa</i>	NDH	Medium	0	0	0	Unknown	Unknown	High	Absent	Unknown	Unknown				0	64
willow oak	<i>Quercus phellos</i>	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +	3	65	
black oak	<i>Quercus velutina</i>	WDH	High	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown				0	66
black locust	<i>Robinia pseudoacacia</i>	NDH	Low	0	0	0	New Habitat	Unknown	Medium	Absent	New Habitat	Unknown				3	67
sassafras	<i>Sassafras albidum</i>	WSL	Low	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown				0	68
American mountain-ash	<i>Sorbus americana</i>	NSL	Low	0	0	0	Unknown	New Habitat	Low	Absent	Unknown	New Habitat				0	69
cedar elm	<i>Ulmus crassifolia</i>	NDH	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat				3	70