



Species	Adapt	Low Change		High Change		Shade Tolerance	Deer Browse Risk  
		Habitat Change Class	Species Capability	Habitat Change Class	Species Capability		
American Basswood	.	↑	↑	↑	↑	T	M, H
American Beech	.	↑	↑	↑	↑	T	L
American Elm	.	↑	↑	↑	↑	M	H
Balsam Fir	-	↓	↓	↓	↓	T	L
Balsam Poplar	.	↓	↓	↓	↓	I	M
Bigtooth Aspen	.	↑	↑		↑	I	L, M
Bitternut Hickory*	+	★		★		I	L
Black Ash	-	●	↓	●	↓	I	M, H
Black Cherry	-	↑	↑	↑	↑	I	M, H
Black Oak	.	★		★		M	M, H
Black Spruce	.	↓	↓	↓	↓	M	L
Black Walnut*	.	★		★		I	M
Blackgum	+	★		★		T	M, H
Bur Oak	+	↑	↑	↑	↑	M	M
Eastern Cottonwood*	.	★		★		I	M, H
Eastern Hemlock	-	↓	↓	↓	↓	T	H
Eastern Red-Cedar	.	★		★		I	L, M
Eastern White Pine	-	↑	○	↑	○	M	H
Green Ash*	.	↑	↑	↑	↑	T	L
Ironwood*	+	↑	↑	↑	↑	T	L
Jack Pine	+	↓	○	↓	○	I	M
Mockernut Hickory	+	★		★		I	H
Norhtern Pin Oak	+	↑	↑	↑	↑	I	M, H
Norhtern Red Oak	+	↑	↑	↑	↑	I, M	M
Northern White-Cedar	.	↓	○	↓	○	M	H

Paper Birch	.	↑	↑	↑	↑	I	L, M
Post Oak	+	★		★		I	M, H
Quaking Aspen	.	●	↑	●	↑	I	M
Red Maple	+	↑	↑	●	↑	T	M, H
Red Pine	-	↑	○	↑	○	I	L
Sassafras*	.	★		★		I	L, M, H
Scarlet Oak	.	★		★		I	M
Shagbark Hickory	.	★		★		I	L
Silver Maple*	+	↑	↑	↑	↑	M	M
Sugar Maple	+	↓	↑	↓	↑	M, T	M, H
Swamp White Oak*	.	★		★		M	M
Sycamore*	.	★				M	L
Tamarack	-	↑	○	↑	○	I	L
White Ash	-	↑	↑	↑	↑	I	M, H
White Oak	+	★		★		M	M, H
White Spruce	.	↓	↓	↓	↓	M	L
Yellow Birch	.	●	○	↑	↑	M	M, H
Yellow-Poplar	+	★		★		I	L

Adaptability	
+	High
.	Medium
-	Low
*	Low Model Reliability

Habitat Change Class	
↑	Increase
●	No Change
↓	Decrease
★	New Habitat

Species Capability	
↑	Good
○	Fair
↓	Poor

Deer Browse Risk	
L	Low
M	Medium
H	High

Shade Tolerance	
I	Intolerant
M	Medium
T	Tolerant

**Notes:**

- ❖ Lake Michigan affects local climate (mild temps, more precipitation and snow)
- ❖ Ground moreaines and areas of lake plains, sand dunes, glacial outwash to the west

**Sources/Credits:**

USDA Northern Forests Climate Hub, NIACS, The Nature Conservancy, Michigan DNR, Forest Carbon and Climate Program Department of Forestry Michigan State University, and Others.