

Trees of the Huron River Watershed in a Changing Climate

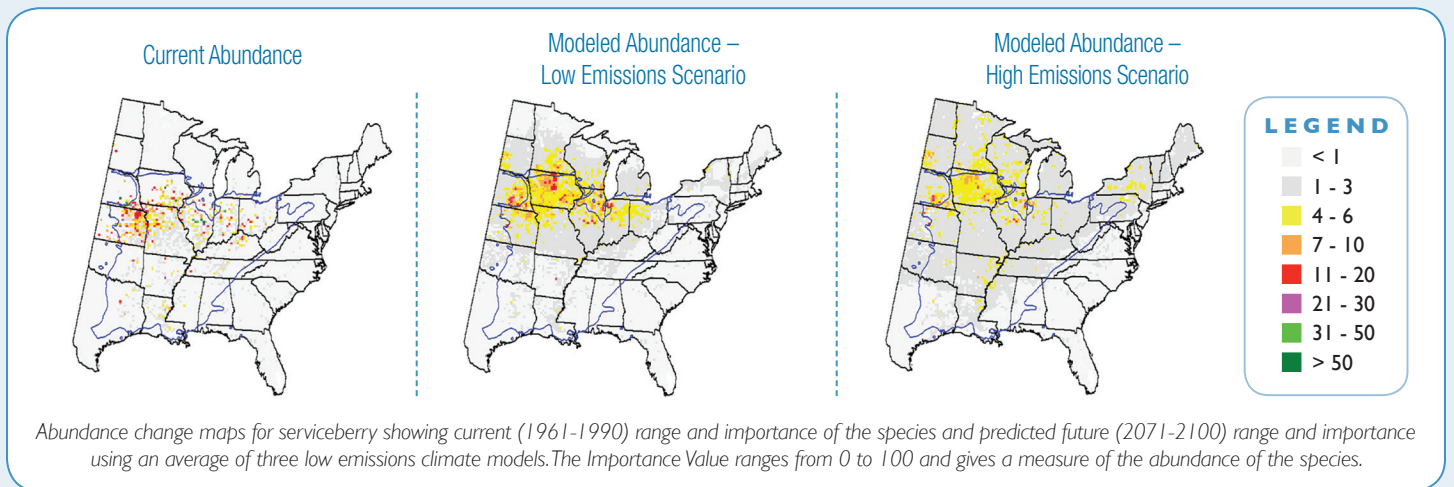
Honeylocust *Gleditsia triacanthos*

Description

Honeylocust is a large, fast growing and tolerant canopy tree. It is also resistant to wind and ice damage making it a popular choice in urban forestry. The species is at the northernmost extent of its range in southeast Michigan. It is typically found on moist soils in low lying areas though it is drought hardy. It is typically a minor component of the forest systems it occurs within. Honeylocust requires full sun to establish and is not shade tolerant.



Change Maps for Honeylocust¹



Implications of Climate Change

Honeylocust is not a significant component of any natural community types found in southeast Michigan. Specimens found currently in Michigan are considered to be at the northern extent of their range. Climate change is anticipated to benefit this species as average temperatures increase. Both the range and abundance of honeylocust are predicted to increase according to climate change models. Because of their hardiness, honeylocust is likely to continue to be a good shade and street tree.

Natural Communities Associations²

Minor canopy species in floodplain forests and southern

hardwood swamps.

Vulnerability of Natural Communities³

Under drier, warmer conditions southern hardwood swamps are predicted to be negatively impacted as local hydrology is altered. Floodplain forests are restricted to river channels and have limited migration potential and they may experience abnormal flood events but it is not known whether this will positively or negatively impact this community. Honeylocusts also occur in many community types to the south, such as oak-hickory forests, which may be more widely represented in southeast Michigan over time.

¹Prasad, A. M., L. R. Iverson, S. Matthews., M. Peters. 2007-ongoing. A Climate Change Atlas for 134 Forest Tree Species of the Eastern United States [database]. <http://www.nrs.fs.fed.us/atlas/tree>, Northern Research.

²Michigan Natural Features Inventory. www.mnfi.anr.msu.edu/communities

³Lee, Y., M. A. Kost, J. G. Cohen, and E. H. Schools. 2012. Climate Change Vulnerability Assessment and Adaptation Strategies for Natural Communities in Michigan, Focusing on the Coastal Zone. Michigan Natural Features Inventory Report No. 2012-18, Lansing, MI.