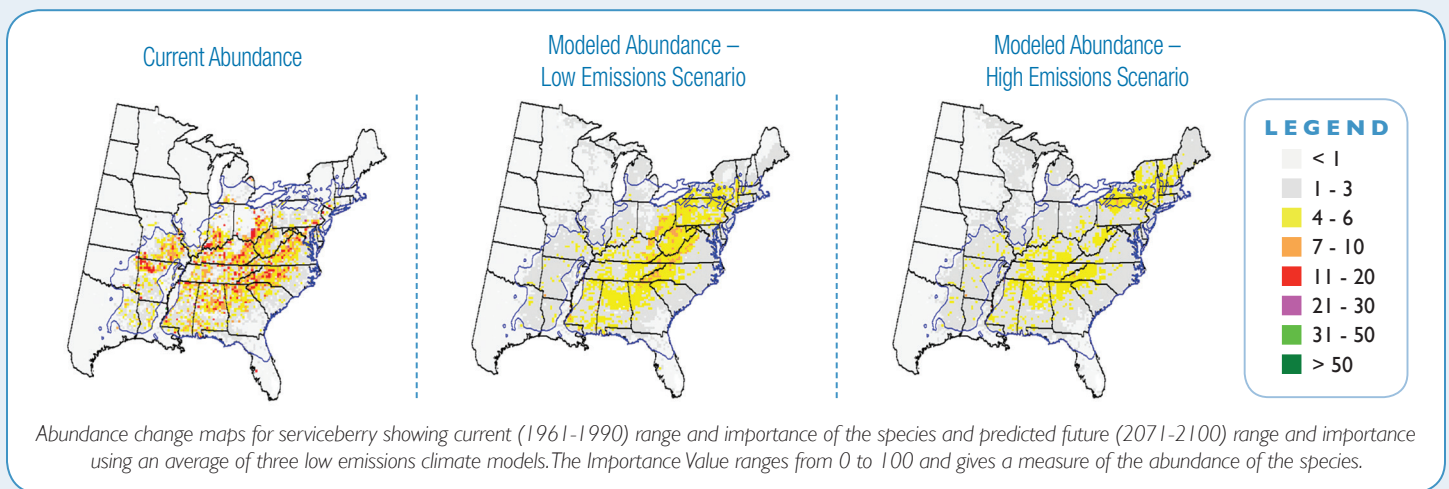# Dogwood *Cornus florida*

Description

Flowering dogwood is a fast growing, short-lived tree found as an understory species throughout southern lower Michigan. It is a very common ornamental species and street tree with showy flowers and fruit that attracts wildlife. Dogwoods prefer well-drained, upland soils but can also be found along streams and occurs in many forest types. Its shallow root system does poorly in clay soils and extremely dry sites. It improves soil through rapid leaf decomposition and contribution of phosphorus and calcium to the soil.

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Change Maps for Dogwood[1]

Current Abundance

Modeled Abundance – Low Emissions Scenario

Modeled Abundance – High Emissions Scenario

LEGEND	
	< 1
	1 - 3
	4 - 6
	7 - 10
	11 - 20
	21 - 30
	31 - 50
	> 50

Abundance change maps for serviceberry showing current (1961-1990) range and importance of the species and predicted future (2071-2100) range and importance using an average of three low emissions climate models. The Importance Value ranges from 0 to 100 and gives a measure of the abundance of the species.

Implications of Climate Change

Dogwoods can grow under a variety of conditions and is at the northern most part of its range in southern Michigan. Climate change models indicate an increase in abundance of the species throughout Michigan. This species is not drought or flood tolerant so localized declines may occur in habitats where these increase. Dogwood anthracnose is a lethal disease for dogwoods which may become more prevalent as the climate changes.

Natural Communities Associations[2]

Subcanopy species in dry southern forests, mesic southern forests, dry-mesic southern forests and oak barrens.

Vulnerability of Natural Communities[3]

The dry to mesic southern forest systems are expected to have low vulnerability to climate change. Longer growing season and warmer temperatures will expand the range of these systems northward. The wide distribution of these systems help support species dispersal except where forests are more fragmented. Disease, invasives and drought could negatively impact dogwoods in these systems. Conditions in southeast Michigan are not likely to support oak barrens as climate changes. Fragmentation has left dispersal potential low.

[1]Prasad, 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.

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

[3]Lee, 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.