

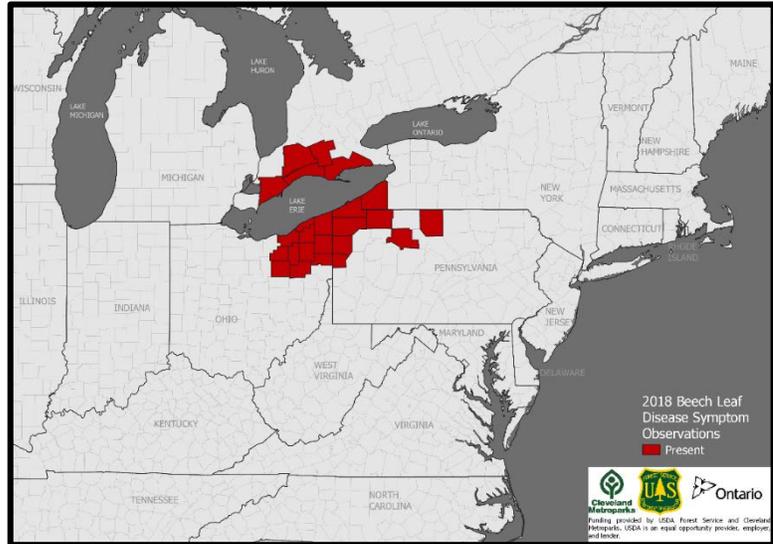
Forest Health Pest Alert

Beech Leaf Disease

June 2019

Hosts and Distribution

An affliction generically referred to as beech leaf disease (BLD) has been contributing to the decline and mortality of American beech across Ohio, Pennsylvania, New York, and Ontario. BLD was initially discovered in Lake County, Ohio in 2012 and now affects at least 24 counties (see map). To date, BLD symptoms have been found on American beech (*Fagus grandifolia*), European beech (*F. sylvatica*), and Oriental beech (*F. orientalis*). While the causal agent has yet to be officially identified, diagnostic efforts have revealed an association with a foliar nematode (*Litylenchus crenatae*).



Distribution map of BLD symptoms as of 2018.

Symptoms

Very early symptoms include dark bands between lateral veins of leaves. Banding is most apparent when viewing from below, looking upwards into the canopy and is evident immediately upon leaf-out in

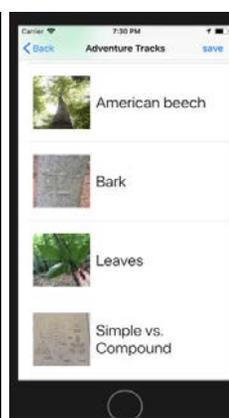


Top left: Early BLD symptoms showing interveinal banding. (photo credit: Tom Macy). Bottom left: Advanced symptoms showing darkened and thickened leaves. (photo credit: Constance Hausman). Right: All range of symptoms present on the same branch (photo credit: C. Hausman)

the spring. Later stages result in heavily banded-darkened leaves that are thickened and leathery in texture, often with shriveled or curled edges. Aborted bud development and reduced leaf production results in a loss of canopy cover. Mortality has been noted in saplings within 2-5 years.

What can you do?

Report symptom observations using Tree Health Survey, an iOS app that trains users to identify beech trees and beech leaf disease symptoms (an Android version will be available late summer 2019). Tree Health Survey can be used to record location, symptom severity, and submit photos. It is necessary to record both healthy and symptomatic trees to help delineate range and extent. In addition, contact your state forest health administrator if BLD symptoms are observed.



Left to right: Reduced canopy as a result of beech leaf disease. (photo credit: John Pogacnik)
Tree Health Survey main screen where training and data collection can be done. Training uses pictures to help identify beech and BLD symptoms.

Author contact info:

Danielle Martin, Forest Pathologist
USDA Forest Service
180 Canfield Street
Morgantown, WV
(304)-285-1531
Danielle.k.martin@usda.gov

Tom Macy, Forest Health Program
Administrator
Ohio Department of Natural Resources
Division of Forestry
2045 Morse Rd., Bldg. H-1
Columbus, OH 43229
(614) 265-6705
thomas.macy@dnr.state.oh.us

Daniel Volk, Forest Health Project Coordinator
Cleveland Metroparks
2277 W Ridgewood Dr.
Parma, OH 44134
(440) 253-2143
drv@clevelandmetroparks.com

John Pogacnik, Biologist
Lake Metroparks
11211 Spear Rd.
Concord Twp., OH 44077
(440) 639-7275
jpogacnik@lakemetroparks.com

