

Beech Bark Disease in Wisconsin

Beech bark disease is a serious disease of American beech (*Fagus grandifolia*) in eastern North America. It is caused by a scale insect (beech scale, *Cryptococcus fagisuga*) and two fungi in the genus *Neonectria* (*N. faginata*, *N. ditissima*). Introduced to Nova Scotia on infested ornamental beech trees in 1890, the disease has been spreading west and south, reaching Michigan in 2000. In 2009, heavy infestation by beech scales and mortality of beech were detected for the first time in Wisconsin in Door County.

In the summer of 2017, fungal fruiting structures called perithecia of *Neonectria ditissima* were found on beech firewood that was cut and stored in the stand where heavy beech scale infestation was found in 2009. The firewood came from dead trees that had been heavily infested with beech scale. This was the first confirmation of *Neonectria* spp. on a beech tree in association with beech scale infestation and beech mortality in Wisconsin. Confirmation of fungal species was made through microscopic examination and molecular analysis by the WI Department of Agriculture, Trade and Consumer Protection, Plant Industry Lab. *N. ditissima* is a native pathogen that attacks many species of hardwood forest trees.

Beech bark disease has only been found in Door County, whereas beech scale has spread through most of the range of American beech in Wisconsin. In 2017, beech scale populations remained very low across the range of American beech outside Door County in Wisconsin. Scattered beech presumed to be infected with the disease prematurely turned a golden yellow color in eastern Door County.



Fungal fruiting bodies were found on the bark of beech firewood that was kept in the shade.

Please report beech die-offs from locations outside of Door County to [DNR Forest Health Team](#) or DATCP at Renee.Pinski@wisconsin.gov, Phone: (608) 224-4745.



Above: Coral canker, *Neonectria ditissima* fungal fruiting bodies (perithecia) under 40X magnification.

Below: Asci and ascospores under 400X magnification.



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