

Renfrew County Forest Health Update 2022

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After a few challenging years, 2022 saw improvements in some forest pest problems, and some remarkable new infestations. There was generally more rain, which helped mitigate stress from previous dry periods and aid in the collapse of the spongy moth population. However, increased moisture helped other pests thrive. Several invasive species continue to spread and impact the natural biodiversity of the areas' forests.

Spongy Moth

[Spongy moth](#) (previously known as LDD and Gypsy Moth) caused severe defoliation and disruption in 2021 throughout much of Renfrew County. Fortunately, natural controls including egg parasitization, a virus and bacteria, came into effect and the population collapsed in much of Renfrew County and Ontario. We experienced a cool, wet spring which likely aided in reducing the success of overwintered egg masses.



Figure 1. Parasitized and unsuccessful spongy moth egg mass.

Although less than 500 hectares were mapped as defoliated in 2022 (mostly in the Madawaska Valley), it will take several years for trees stressed in 2021 to fully recover. Spongy moth outbreaks typically occur every 7-10 years, but usually at a much smaller scale than this past infestation – the most severe in Ontario's history.

Cedar Leafminer

[Cedar leafminer](#) is a complex of four native insects that feed on eastern white cedar foliage, causing a browning of the leaves. The damage is very noticeable and was the main public inquiry about forest health in 2022. In May, significant swaths of cedar forest area were visibly impacted in the Eganville, Renfrew and surrounding areas. Once the hollowed out leaves turn brown and fall off, cedar are able to produce new leaves in the same season, and re-greening was observed later in the summer. However, some trees were severely impacted and showed little or no recovery.



Figure 2. Cedar leafminer damage.

The outlook for 2023 is unknown but it is likely that if the outbreak continues, more mortality will occur in previously affected areas. Homeowners can reduce the impact on ornamental trees by pruning back and properly disposing of affected branches over the winter.

Derecho Wind Damage

On May 21, 2022, a powerful windstorm classified as a derecho affected a wide swath of central Ontario and resulted in 12 lives lost, significant property and infrastructure damage and extensive forest blowdown. Several areas in the southern part of Renfrew County were affected, with Matawatchan Township most impacted by downburst winds. Three Renfrew County Forest tracts were impacted, mostly with patchy blowdown or snapping of trees. A salvage operation took place at Centennial Lake Tract, with 500m³ of volume picked up and utilized.

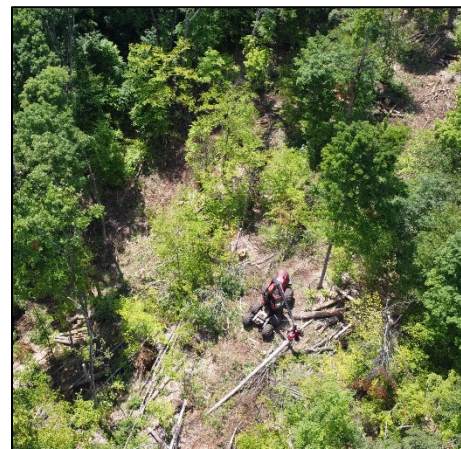


Figure 3. Salvage operation at Centennial Lake Tract.

Emerald Ash Borer

Emerald Ash Borer (EAB) is an invasive, wood-eating beetle that is threatening Ontario's ash trees. As discussed in previous year's reports, EAB was first discovered in Renfrew County in 2013. Since then, it has spread to most areas of Renfrew County, especially along roadways, in towns and parks. Most interior forest areas are not yet showing significant decline. However, a drive along Highway 17 south of Cobden into Ottawa during the summer illustrates vast mortality, with many dead ash tree tops visible. Increased winter woodpecker activity such as pictured in Figure 4 is also a sign of high EAB population.

The Province of Ontario listed black ash as an Endangered Species in 2021. This decision has potential detrimental implications for forestry, trails, public works and development in Ontario. Feedback was provided to the Province on numerous occasions through the Environmental Registry of Ontario.

Residents of Renfrew County can help slow the spread of EAB and other invasive insects by not moving firewood – it is likely that is how most of the infestations arrived here. If you have ash trees on your lawn, you may consider planting another species now to maintain tree cover once EAB arrives in your area. Treatment options are available for high-value specimens, but are not practical on a large scale. Pre-emptive removal of ash on your property is not recommended.



Figure 4. Heavy woodpecker feeding on EAB larvae while they overwinter.

Beech Bark Disease

Beech bark disease (BBD) was first identified in Renfrew County in 2013. It is the result of an invasive scale insect infestation (*Cryptococcus fagisuga*) followed by a fungal invasion known as *Neonectria*. Tree death usually occurs within 2-5 years of fungal infestation. In addition, trees with BBD are more susceptible to other decay fungi and insects and are prone to snapping during wind events.

BBD is widespread in Renfrew County at this point. County forestry staff observe it in most tracts where beech is present. Prior to the introduction of BBD, most beech was retained during a harvest to provide wildlife value. The sad reality is once the disease arrives, there is little that can be done to protect beech in forests. The greater problem is the "aftermath forest", where beech regeneration aggressively outcompetes other species after death or salvage of mature infested trees. This regeneration will also succumb to BBD, but continue to re-sprout into a beech thicket and limit future regeneration of other species.

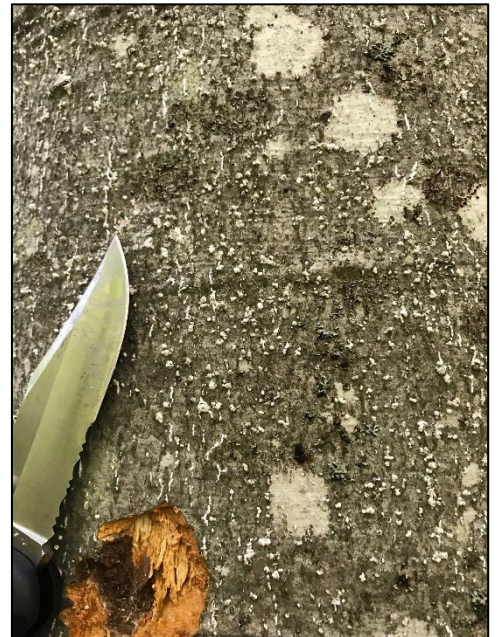


Figure 5. Beech bark disease: scale and cankers

Woodlot owners may wish to learn to identify BBD and target removal of infected trees for firewood or wood products in winter – moving logs around in summer and fall may spread the spores faster. Because of the high value for wildlife, retaining the healthiest beech is a good practice, and pre-emptive removal of all healthy beech is not advised. However, when managing your forest, you may choose to preferentially harvest beech over other species without imminent health concerns (e.g. retain basswood over beech in a selective harvest). Controlling regeneration sprouts will help other species succeed.

For Additional Information

Reporting Tools

[EDDMapS](#) – For reporting invasive species, species information and distribution maps.

[A Community for Naturalists · iNaturalist](#) – For help identifying and to contribute to citizen science about species occurrence and distribution.

Cedar Leafminer

[Cedar Leafminer Fact Sheet \(Irconline.com\)](#) - For information about identification, life cycle, prevention and control.

May Derecho Windstorm

[Wind Storm Damage – Practical Advice for Salvage and Clean-up](#) – Recorded webinar provided by the Ontario Woodlot Association.

[ON-QC Derecho - May 21, 2022 - Event Summary Map | NTP-OpenData \(arcgis.com\)](#) – Map compiled by the Northern Tornadoes Project.

Emerald Ash Borer

[Preparing-for-EAB.pdf \(eomf.on.ca\)](#) – A Landowner’s Guide to Managing Ash Forests, OMNRF, 2012.

[YouTube Video](#): Emerald Ash Borer: For Woodlot & Forest Managers.

[Emerald Ash Borer - Profile | Invasive Species Centre](#) – Signs, symptoms and fact sheets.

Beech Bark Disease

[Beech bark disease | ontario.ca](#) – Overview, identification and basic information.

[Beech Bark Disease in Ontario: A Primer and Management Recommendations](#) – McLaughlin and Greifenhagen, 2012.