

Forests are struggling reveals Forest Health study

One in five trees are dead and invasive plants and insects are taking their toll but education can help landowners encourage forest regeneration

By Lisa Boonstoppel-Pot

Forest health is a big issue, not just because trees are valuable but because forests are homes to wildlife, offer recreational and hunting opportunities to humans and are, “absolutely beautiful” says Erin Gouthro, who has been known to hug a tree or two.

“Forest products are an important way to diversify income on the farm and they also create resilience in the landscape by channeling water into the ground,” said Gouthro, a watershed ecologist for the Maitland Valley Conservation Authority. “Their deep root systems make them the most effective plant in the landscape to do that. Plus, mature trees can transfer thousands of gallons of water into the atmosphere on a hot summer’s day which gives us oxygen and stabilizes our local climate.”

Globally, forests are in decline — a trend which can be found even on our own doorsteps. After a century of over exploitation, forests within the Maitland Valley were left devastated and the land was left without protection from wind and water. People suffered without the cultural and economic benefits they depended on from forests. By the 1930s, a major effort began to protect remaining forests and replant lands. “One hundred years later, our remnant forests still face enormous challenges,” said Gouthro.

To understand their current condition and evaluate progress and identify problems, a Forest Health study was done. The results reflected the current global trend. Local forests are fragile and precariously perched with respect to their health. One in five trees in the forests are dead.

“That is 20 per cent of our trees gone,” said Gouthro. The loss of ash trees to the Emerald Ash Borer is well-known but beech trees are dying due to beech bark disease and have shown a 95 per cent decrease in the sample set since the last survey done in 2000. Other forest species, such as hickory and ironwood, while not declining, are not increasing either.

Invasive pests and insects, invasive plants, woodcutting and storm events are the top four disturbances in forests.

Maple trees are abundant but they are

the “last man standing.” As a valuable tree, there will be economic pressure to cut them and in the broader scale, forests dominated by one species are not diversified enough. “We need

management to enrich forests with species that should be common. Every upland forest should have a complement of bur oak, cherry, basswood and other native trees, for instance,” said Gouthro.



Doug and Cathy Walker stand in front of the woodlot that has provided them with income when their farm needed it but now serves as a location for joy and discovery. They are now keen to conserve the bush as a legacy for the next generation and took part in the Forest Health study to learn how healthy their bush is and what they can do to improve it.

Even maples have their struggles. Despite being common, some woodlots are seeing few to no young sugar maples in the understory. “We are seeing plots with no maple regeneration.”

It’s a mystery, and a concerning one. Gouthro wonders if there are too few mature trees to cast seed. Are maples being cut too young? She explained that the cycle from tree germination to the tree becoming an adult is 150 years. “That is two human lifetimes,” she said. “A tree that started growing in 1850 is just reaching adulthood now.”

She encourages farmers with woodlots to check on their forest regeneration, to see if maples and other healthy tree species are sprouting. If they only see ash or buckthorn regeneration, additional management steps are required to preserve the health of the woodlot.

“They could consider a planting program to enrich the forest with other

native trees,” advised Gouthro.

Size wise, forests dominated the landscape before Europeans settled. After settlement, forests declined to about 10 per cent, with conservation and replanting forests recovered to 18 per cent of that original forest cover. Since then, the watershed has lost an additional 400 acres decreasing forest cover to 16 per cent.

Ultimately, the protection and stewardship of forests requires a cultural shift. When it comes to harvesting wood, forests have been seen as a “golden goose that keeps laying golden eggs.” The Forest Health study shows forests are under intense pressure from multiple disturbances happening all at once which is pushing some woodlots to becoming unhealthy and in need of enhanced care and restoration. The lesson forests are teaching is that they aren’t inexhaustible and we have moved beyond a frontier landscape. “Our relationship with them

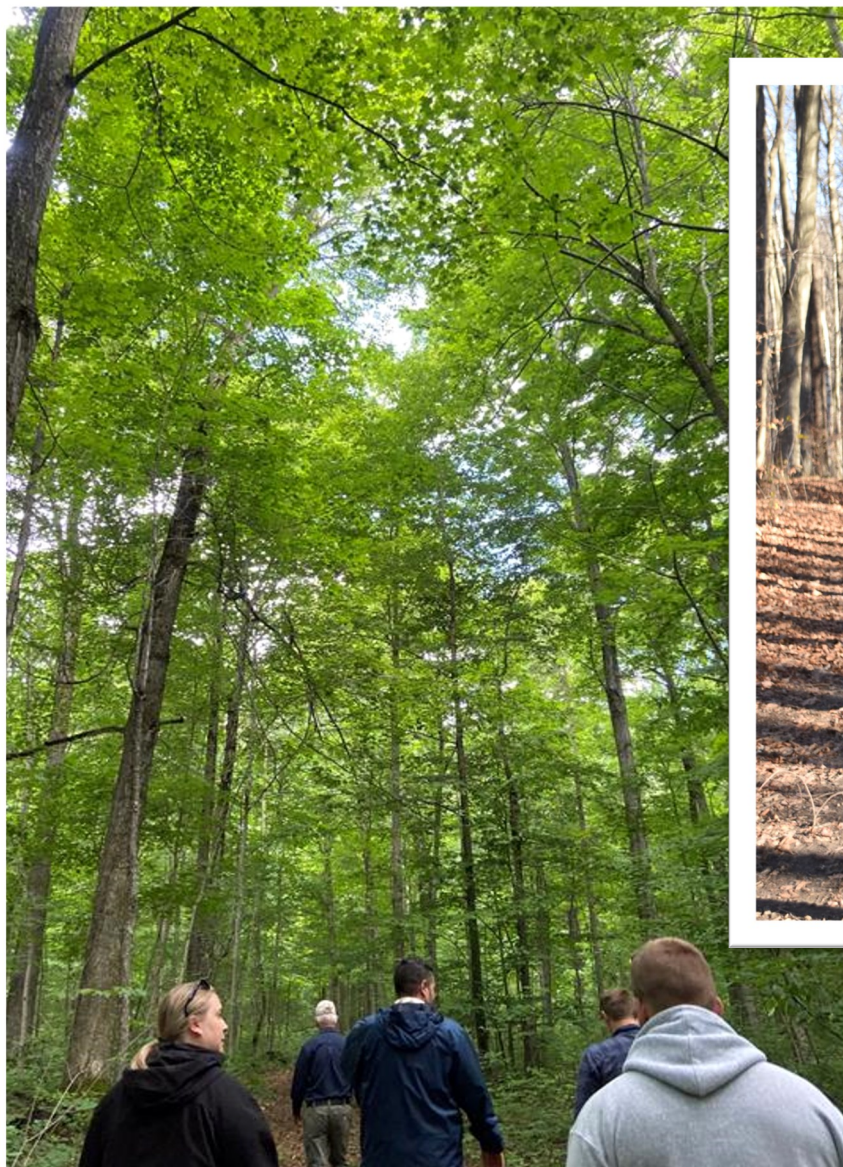
needs to mirror this,” said Gouthro.

Landowners could take the stress and pressure off forest by harvesting less often, and leaving a few trees to grow to maturity to encourage forest regeneration.

“That’s why this study is so important and valuable,” said Gouthro. “It aims to increase knowledge at the local level and empower landowners to understand the conditions of their forest so they can see the bigger picture and make good decisions for their forest.”

It’s hard to manage what you don’t know and without health assessment and monitoring information, forest management has fallen into a “one-size fits all” approach. Sharing knowledge from this study is high on Gouthro’s list and with the backing of good science from the Forest Health Study, she is excited to share it with landowners.

“The future of our forests is in the hands of our landowners,” said Gouthro. “It’s critically important they have relevant information. This study has been well



Forests provide clean air, aid in soil and water health and are home to Ontario’s wildlife which is why Erin Gouthro, a watershed ecologist with the Maitland Valley Conservation Authority, was eager to spearhead a Forest Health Study which has revealed some disturbing statistics about the health of our forests.

received and landowners I have spoken to found the study useful because it builds knowledge and understanding. It think it gives them confidence to know what they have observed is real and provides a foundation on which to ask questions and act.”

One of those owners are Doug and Cathy Walker who, when told they had a very healthy woodlot, were kind of awakened to the treasure they had on their farm. “We had not really realized that before,” said Cathy, who walks on trails through the bush every day, enjoying the thriving understory and the “mother trees” that were left after logging.

The forest has served many purposes for the Walkers over the years. During hard times on the farm, they did log the bush for income and thankfully, had the luck to hire loggers who respected the woodlot and could see a longer vision for it. One logger removed all the ash and another preserved older maples so they could grow into full maturity.

“As we got older and the farming was more profitable, we could turn our attention to sustainability. Plus, at our age, you start to think about your legacy for future generations,” said Cathy when asked why they want to conserve and preserve their woodlot. “In the last 10 years, we have seen the bush in a different light.” Through reading and

education from the MVCA, the Walkers learned to stay on trails so as not to disturb the canopy. They are protective of the mature trees which will repopulate the forests. And their biggest piece of advice is to choose loggers carefully. “I don’t feel we have the right to say to young people they shouldn’t log their bush. We did it when money was tight. What I would say is choose your loggers carefully. We have seen examples of woodlots that were decimated. The loggers took everything and left huge ruts up and down which caused erosion. Those areas don’t recover and invasive plants move in.”

Cathy said woodlots are an investment for the long term in terms of income, but also in terms of lifestyle. “You need to take the long view and recognize there is a generation that will follow you who will benefit from your woodlot in many ways. One is logging. The other is to enjoy the trees and wildlife. We have an obligation to save trees and wildlife,” added Cathy.

The MVCA continues to do its part by improving the health of forests owned by Maitland Valley. These forests are monitored and used as demonstration sites for forest health actions. MVCA also has a forester working with landowners to increase forest cover by planting trees in the watershed. Funds provided by the Maitland Conservation

Foundation and the John Hindmarsh Environmental Trust Fund have been essential in getting more trees into the ground, as well as supporting the Forest health Study.

Funds may also be used to develop forest management plans to help landowners get their forests properly marked. Landowners can take action themselves by enriching their forest by planting diverse, native species. They can take advantage of tree and shrub order opportunities for spring and fall tree plantings. The MVCA also provides expertise and funds for restoration projects such as windbreaks, buffers and reforestation on a cost-share basis.

Gouthro also recommends that landowners be careful about introducing invasive plant species to their forests and to protect spring ephemerals (trilliums, trout lily, bloodroot, etc) which are under stress but have a vital role in providing nitrogen to tree seedlings.

Forest health is everyone’s responsibility and data from the Forest Health Study provides the science to inform landowners about the current condition of our forests and what work needs to be done. “Ultimately the Forest Health Study is about leadership,” concluded Gouthro. “It’s about us providing information to the community so they can use it to improve the health of their forests.” □



Ecologist Erin Gouthro of the Maitland Valley Conservation Authority walks with Stewart Lockie, MVCA’s Conservation Areas Coordinator, examining the trees and explaining the benefits trees make to the landscape. Gouthro is sharing knowledge about the status of forests in the MVCA watershed which were gleaned from the recent Forest Health study.