MONTHLY MEETING REPORT

Disturbing the Disturbed: Using Biological Control to Recover our Invaded Forests
Sunday, April 11. Sandy Smith, Dean of Forestry, University of Toronto

Sandy's enthusiasm for her subject matter was infectious. Her primary message was that careful research and time are necessary and that native controls may be preferable to foreign ones. For today's lecture, Sandy defined invasive as "exotic, alien and non-native." Even though some native species can be invasive, that was not the topic for today.

Invasive species hitchhike into our local scene via airplane travel and/or the transportation of goods by ship or other means. If they encounter a climate similar to one they left behind, they can grow and even thrive. Intentional introductions can come as landscaping or gardening material – e.g. the harmonia ladybird beetle. The unintentional introductions – e.g. zebra mussels – can enter our habitat via trade through ballast, dunnage, wrapping material and the products themselves. The 'disturbing' come in the form of plants such as dog strangling vine, garlic mustard and Norway maples, insects such as the emerald ash borer and the Asian long horn beetle and diseases such as Dutch elm disease, beech bark scale and butternut canker. Toronto is a huge gateway for the invasion of alien forest insects.

Biological control can take several forms. Conservation methods involve the use of native natural enemy species; augmentation uses inundative or inoculative releases; and introduction uses classical biocontrol with alien species. An example of augmentation involves the native parasitoids and the spruce budworm. Commercial rearing and application of the parasitoids means they can be used when needed, making them more effective.

Classical biological control involves going back to the country of origin and trying to find a species that is the natural enemy of the alien here. Sandy prefers to focus on native biological controls. She points out the need to be careful and understand the nature of the threat before we apply solutions.

Sandy spoke of their work on the Haliburton Forest and Wildlife Reserve where they did some research in the canopy and found new species. They determined that the communities on the ground and in the canopy were different. Another example of biodiversity is that of decaying wood; the older the decaying wood, the greater the diversity of the community.

One of the most interesting points I learned today was that normally there are no worms in our forests. However, the worms are moving in and they may be one of the major disturbers who will change our forests. As they pull organic matter into the soil, they speed up the processes and change the nature of the habitat. While this may be good for our vegetables, flowers and compost heaps, worms will have a detrimental effect on our forests in the long run.

Continue to pull the garlic mustard. It gets people engaged and perhaps that will lead to more lobbying for research to understand the nature of the threat and what best can be done about it.

Corinne McDonald

Help fight invasive plants!

Please join TFN's garlic mustard pull in Warden Woods on May 15 (see page 9.)

There will be time to participate in Melanie Milanich's wildflower walk that afternoon.

TFN garlic mustard pull at Warden Woods, May 22, 2009, photographed by Cheryl Post, Toronto Parks & Rec. staff