Invasive Species – a threat to Ontario's biodiversity

By Debra Lemire

Ontario is a beautiful province full of lakes, streams, wetlands and a diverse flora and fauna. The province offers an immense biodiversity for us to enjoy. Our wealth is in our wildlife, plants and natural resources that supply us with clean air to breathe, fresh water to drink, productive soils to provide the foods we eat, timber to build our homes and renewable energy to power our homes and businesses. After habitat loss, the greatest threat to our biodiversity comes from invasive species. These are organisms, such as plants, animals, fungus or bacterium that are not native to



Ontario and whose introduction or spread threaten our agriculture, forestry, public health, tourism, outdoor recreation and economy.

Zebra mussels and sea lampreys invaded the Great Lakes, Dutch elm and butternut canker diseases infected and killed parts of our woodlands, emerald ash borers and Asian long-horned beetles destroyed over one million trees. These are but a few of the invasive species that call Ontario home. The impact of zebra mussels alone is estimated to cost Ontarians between \$75 – 91 million per year. Unfortunately, the introduction of new invasive species is expected to increase in the coming years as a result of global travel and an increase in international commerce.

Once invasive species enter Ontario, they spread in different ways. Sometimes it is done unintentionally, but many times people do it knowingly. Bait buckets are emptied into rivers and streams, aquariums are dumped into local waterways, firewood is transported to other areas and exotic pets are released into the wilderness.

It will take all three levels of government: federal, provincial and municipal, along with all Ontarians to respond to this threat. The federal government has a regulatory role which includes aspects of prevention, detection, management, control and eradication. For example, the Canadian Food Inspection Agency (CFIA) enacted the Plant Protection Act. When Asian long-horned beetles were discovered in Vaughn and parts of Toronto in 2003, probably in untreated wood packaging from China or Korea, CFIA established regulated areas where the movement of any tree or tree product was prohibited.

The provincial government, as owner of Crown land and manager of forests and fisheries, has a regulatory and stewardship role in dealing with invasive species because of the potential impact on the province's natural resources, ecosystems and economy. In 2012, the Government of Ontario

announced a new strategic plan to fight the 441 invasive species already in Ontario and to prevent the entry of new species.

Ontario Conservation Officers enforce the invasive species laws to stop the illegal movement of fish and game in the province. Asian carp, for example, entering the Great Lakes basin would result in a severe decline in native fish and would affect sport and commercial fishing industries that bring in millions of dollars to the Ontario economy. Since 1992, conservation officers have worked with stakeholders to create programs to fight invasive species through education, early detection, outreach and training.

Municipal governments work with the federal, provincial, First Nations, private land-owners and other stakeholders to work on regional invasive species management programs.

Streetsville Horticultural Society led the movement to have local ash trees saved. "We sent letters to our local councilors and circulated petitions that gathered hundreds of names. Eventually our persistence paid off. The city agreed to inject all healthy ash trees on city property," recounted Rob Harshman. The City of Mississauga established the emerald ash borer program, a ten year, \$51million plan to treat 20,000 healthy, city-owned ash trees and to remove and replace 1200 infected trees.

What can we do as gardeners do to prevent the spread of invasive species?

- Learn to identify and manage invasive plants by removing the flowers before they bloom and set seed;
- Purchase non-invasive or native plants from a reputable dealer;
- Dispose of yard waste through your local municipality or backyard compost and do not dump yard waste in natural areas;
- Dispose of invasive plants by placing them in a plastic bag and leaving them out in the sun for five days. Follow through by throwing the bags in the garbage or burning them. Do not compost as flower seeds can remain viable for a long time;
- Do not remove vegetation from natural areas. They may be rare plants or even invasive plants;
- Dispose of annual water plants properly at the end of the growing season. Dumping them in local waterways could cause them to overwinter during a mild winter;
- Share best gardening practices with family, friends, and neighbours. Be cautious when exchanging seeds and plants with other gardeners;
- When in doubt contact the "Invading Species Hotline" at 1.800.563.7711 or www.invadingspecies.com or www.ontarioinvasiveplants.ca.

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