

Aliens!

By Scott Pemberton, Operations Manager for the Morgan Arboretum

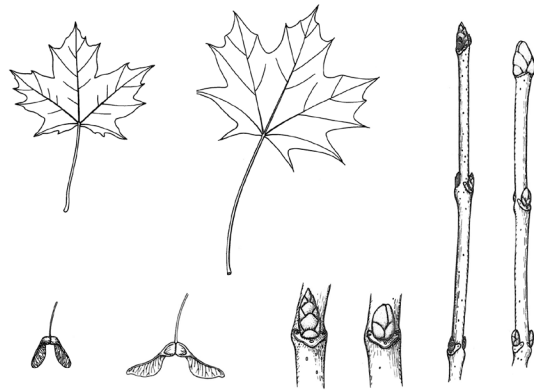
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Every summer the Morgan Arboretum is fortunate enough to be able to hire a team of summer students to work in the field thanks to the Canada Summer Jobs Program. These students get invaluable work experience and learning opportunities, while doing the grunt work behind the scenes that keeps the Arboretum in tip top shape for both the public's use and for the good of Mother Nature.

The summer students come with various educational, personal and professional backgrounds and take on a multitude of tasks including mowing lawns, planting garden beds, cleaning buildings, fixing equipment, chopping wood, monitoring wildlife, occasionally corralling loose dogs and corralling loose kids as they lead our spring and summer educational programs. One of the tasks that our summer students bravely take head on is the monitoring and eradication of... Aliens!

While the Arboretum is on the forefront of cutting edge environmental and conservation research we aren't in the business of researching intergalactic beings. We'll leave that up to NASA. Although, the Royal Astronomical Society of Canada does call the Arboretum its home base and hosts some amazing night sky astronomy viewing events throughout the summer! No, the types of Aliens that our summer students have the daunting task of managing are earthly species of plants that end up being introduced outside of their normal distributions. Also known as invasive species, these alien species need to be managed because their presence in unaccustomed areas can lead to drastic alterations in other native species, native habitats and ecosystems as a whole.

Some examples of invasive species in our region and ones that you might find in your yard are Buckthorn, Garlic Mustard, Norway Maple or Japanese Knotweed. The reason these invasive species can be so problematic is because the new environment they find themselves in did not evolve alongside them. Therefore, invasive species can grow and procreate faster than our local species. Often invasive species in new environments won't have local predators and can experience population growth unabated by insects or



*Comparison of native Sugar Maple and invasive Norway Maple parts, respectively to the left and to the right. Illustration excerpts from *Trees of Canada* by J. L. Farrar.*

bacteria that keep the other species nearby under control. Quickly this accelerated growth will lead to a space being dominated by the invasive species, and native species being excluded.

This is problematic because, again, the environment and other species did not evolve with the invasive species. Therefore, while the new plant may successfully replace the native species' physical place in nature they often don't replace that species' function in nature. The food source, habitat or structural role completed by the native species will be lost along with said native species. If enough of these ecological roles are lost in an environment the ecosystem as a whole can become less stable and if we've learned anything from "The Lion King" in 1994 or the current climate crisis, it's that the circle of life needs diversity and stability to remain healthy.

The scale of spread of invasive species can be overwhelming and it is difficult for environmental managers to comprehensively survey, assess and take action to eliminate these species from entire regions. By becoming familiar with these species, surveying for them in your yards or gardens and removing them when seen you can help support the integrity of our local ecosystem.

The Morgan Arboretum nature reserve is open to the public every day of the week, all year long. By purchasing an annual membership or making a donation to support the Arboretum you not only make the continued existence of this amazing reserve possible, but you support work and research that strives to build a stronger, healthier environment across Montreal.

