

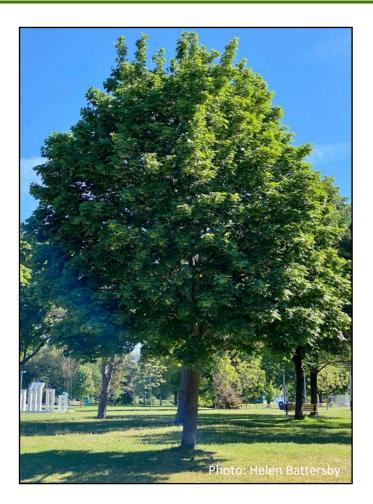
# TORONTO MASTER GARDENER INVASIVE PLANTS FACT SHEETS

### **NORWAY MAPLE**



#### SUPPORTED BY THE INVASIVE SPECIES CENTRE





## NORWAY MAPLE (Acer platanoides)

#### WHAT IS NORWAY MAPLE

Norway maple is a tree, native to Europe. It was introduced as a fast growing shade tree tolerant of stress. There are many cultivars including 'Crimson King', 'Emerald Queen', and 'Drummondii'.

#### WHY IS NORWAY MAPLE A PROBLEM

Norway maple forms a dense canopy that displaces other species. It produces a heavy seed crop with high germination rates. The large samaras are distributed by the wind and travel easily both locally and to new areas. Shade tolerant Norway maple seedlings can spread in high numbers limiting regeneration of native trees and shrubs. Native sapling growth is constrained not only in the presence of larger trees that create an invasive canopy but also when competing with Norway maple saplings. The effect is so extreme some have suggested the tree is allelopathic (releases biochemicals that inhibit the growth of other plants), but research has not confirmed this. The effect is most likely due to both the deep shade created by the canopy and a dense network of roots, growing close to the ground surface, outcompeting other species for water and nutrients. As vegetation becomes scarce, bare soil is exposed and erosion increases. Norway maples contribute very little in terms of food for local wildlife or support for insect life such as caterpillars and butterflies.

The yellow to yellow-green flowers emerge in spring before the leaves, and before most other Toronto trees are in flower; there is a period in April when the extent of Norway maple canopy cover can be visibly observed as a sea of yellowgreen. Leafout is based on photoperiod, which also gives Norway maple a competitive advantage since it usually leafs out well before native trees which generally leaf out based on air temperature.

Current canopy cover in Toronto's ravines was observed to have increased to as much as 40% in 2015 compared to 10% in 1997 (University of Toronto Forestry, Toronto Ravine Revitalization Study).







#### **IDENTIFICATION**

**Leaves** are opposite. Leaf is five to seven lobed (wider than long). Leaf colour is dark green to purple. Black-spot fungus is common on leaves. If broken, leaf stems exude a white, milky sap.





Mature height is 6-22m.

Mature **bark** is finely ridged and dark (bark on younger trees is smooth and grey).



Flowers are yellow-green and inconspicuous.



**Seed** is winged (typical of maples), joined at a 180 degree angle.



TORONTO MASTER GARDENERS
INVASIVE PLANTS FACT SHEETS



SUPPORTED BY THE INVASIVE SPECIES CENTRE



#### MANAGEMENT

Do not plant Norway maple trees. Remove seedlings by hand pulling. Contact an arborist and confirm local by-laws to assess the feasibility of removing trees. Stumps left in the ground should be monitored for re-sprouting and sprouts removed until carbohydrate reserves are exhausted.

Dispose of non-reproductive plant parts with yard waste. Reproductive plant parts should be placed in the garbage.

If you see Norway maples or other invasive species in the wild, please contact the Invading Hotline at 1-800-563-7711, Species or visit EDDMapS Ontario to report a sighting.

#### SIMILAR NATIVE PLANTS AND ALTERNATIVES

The Sugar maple (Acer saccharum) is a native species very similar in appearance. Sugar maple leaves tend to be longer than wide and the tips of the points on the leaves are more rounded. If broken, leaf stems exude a clear The mature bark appears shaggy as sap. opposed to ridged.







**TORONTO MASTER GARDENERS** INVASIVE PLANTS FACT SHEETS





entre

#### **OTHER GOOD ALTERNATIVES**





HACKBERRY (Celtis occidentalis) Adapted to wide range of conditions FREEMAN MAPLE (Acer x freemanii)







SILVER MAPLE (Acer saccharinum)

TORONTO MASTER GARDENERS
INVASIVE PLANTS FACT SHEETS



SUPPORTED BY THE INVASIVE SPECIES CENTRE



#### REFERENCES

- Credit Valley Conservation, Norway maple (*Acer platanoides*), accessed April 15, 2021 at: https://cvc.ca/your-land-water/tree-planting-and-habitat-restoration-services/invasive-species/invasive-species-spotlights/invasive-plants-spotlight/norway-maple-acer-platanoides/
- Love, R., University of Columbia Introduced Species Summary Project: Norway maple (Acer platanoides), 2003, accessed April 15, 2021 at http://www.columbia.edu/itc/cerc/danoffburg/invasion\_bio/inv\_spp\_summ/Acer\_platanoides\_2.htm
- Reinhart, K.O., Greene, E., & Callaway, R. M. (2005). Effects of Acer plantanoides invasion on understory plant communities and tree regeneration I the northern Rocky Mountains. Ecography, 28(5), 573-582
- Roussy, A, Keven, P. G., and Thormas V. G., Norway Maple: policy options to deal with an invasive species. Ontario Arborist June/July 2015; pp. 18 – 20 accessed April 15, 2021 at: https://www.researchgate.net/publication/283082717\_NORWAY\_MAPLE\_policy\_options\_to\_deal\_with\_an\_invasive\_ species\_Ontario\_Arborist\_JuneJuly\_2015\_pp\_18\_-20
- Shannon L. Galbraith-Kent; Steven N. Handel (2008). "Invasive Acer platanoides inhibits native sapling growth in forest understorey communities". Journal of Ecology. **96** (2): 293–302. doi:10.1111/j.1365-2745.2007.01337.x.
- Simkovic, Vicki. 2020. Norway Maple (*Acer platanoides*): Best Management Practices in Ontario. Ontario Invasive Plant Council, Peterborough, ON. Accessed at: https://www.ontarioinvasiveplants.ca/wpcontent/uploads/2021/05/BMP\_NorwayMaple\_April2021\_WEB.pdf

#### **PHOTO CREDIT**

Photos courtesy of :

Peter M. Dziuk and Katy Chayka (Minnesota Wildflowers: https://www.minnesotawildflowers.info)

Helen Battersby and the Toronto Master Gardeners (as marked in individual copyright information)

TORONTO MASTER GARDENERS
INVASIVE PLANTS FACT SHEETS



