

Rethinking the Norway Maple

Paul Hetzler, ISA Certified Arborist

When Norway broke from Sweden in 1905, the newly independent country promised to stay neutral in all international conflicts. However, it has let loose highly successful and prolonged assaults of both the US and Canada on several fronts. To its credit, Norway has managed all this without using the Internet or spending a single *krone*.

To begin with the most recent attack, in 2013 the Bank of Canada was rocked by news that its novel, much-touted polymer bank notes had been colonized by Norway. Arborists and botanists pointed out that the Canadian \$20, \$50, and \$100 plastic bills all bore the image of a leaf from the Norway maple (*Acer platanoides*), as opposed to the native sugar maple (*Acer saccharum*) which has been the national symbol of Canada since at least 1867. In response, the Bank of Canada issued a brief statement that nature-nerds ought to mind their own business.

If you're curious, Norway maple leaves are markedly broader than those of the sugar maple. They have five main lobes or sections, often with two additional minor lobes as well, and the central lobe is generally not higher than the two on either side of it. The tips are sharply pointed. By contrast, sugar maple leaves have three main lobes, the central being tallest, all of which are rounded at the ends. They sometimes have a pair of much smaller lobes adjacent to the stem or petiole.

It may be a coincidence, but just one year after the Norwegian sneak-attack on Canadian currency, New York State declared Norway maples to be regulated invasive species, meaning they can't be "knowingly introduced into a free-living state." All Norway maples – which include the red-leaf varieties such as 'Crimson King' – sold in NY State since then are required to carry a tag which explains the hazards they pose. Norway maples, of course; the tags are harmless.

The problem is that like all maples, *Acer platanoides* makes copious, winged seeds which disperse widely on the wind. One of their key advantages over native maples is that they can thrive in much lower light conditions. In fact, it has been documented that their seedlings grow faster than those of sugar maples.

Also, their dense root systems are shallower than those of native maples, giving them an edge in capturing rainfall and nutrients. They can quickly dominate forest communities where soil disturbance is routine, such as along steep banks. In ravines within the city limits of Ithaca, NY and Toronto, ON, Norway maples now comprise 60% and upwards of the forest composition.

Currently, Norway maples are deemed cold-tolerant to USDA Plant Hardiness Zone 4. Nonetheless, the US Forest Service says "There is some indication that Norway maple could be potentially invasive in Canada through climate zone 2b. This includes the Maritime provinces, most of Quebec and Ontario, the southern 2/3rds of Manitoba, Saskatchewan, and Alberta, and all but the coldest areas of British Columbia. However, precise distribution data are lacking."

With all the strikes against this tree, it seems fair to ask if we should just ban them outright. At the risk of alienating my fellow ISA-Certified Arborists, I say no. Norway maples should be kept away from native forests, especially those on steep terrain, but they're one of the toughest species for urban sites. Much better suited to life on the street than most trees, Norway maples can tolerate air pollution, drought, soil compaction, road salt, and high soil pH. In this sense they are pretty much the opposite of sugar maples, which should never, under any circumstances, be planted along busy roads.

Prior to the advent of the emerald ash borer (EAB), green ash (*Fraxinus pennsylvanica*) took first prize for the most bullet-proof mid-sized urban tree. In addition to the features listed above, green ash can also deal with intermittent flooding and poorly drained sites. Alas, these guys are out of the picture for at least a few decades until an appropriate suite of predators and pathogens are in place as long-term natural controls.

As the EAB invasion has made clear, it's vital to have a range of tree species on our roads and in our parks and home landscapes. If a site has room for a tall tree, bur oak (*Quercus macrocarpa*) and hackberry (*Celtis occidentalis*) can handle tough conditions. Ginkgo (*Ginkgo biloba*), and honeylocust (*Gleditsia triacanthos*) are good mid-size urban trees, but more are needed.

We cannot afford to throw away the Norway maple as a street-tree candidate. If anything, I'd support a prohibition on their use in residential yards, but they pose almost zero risk in downtown Saranac Lake, Plattsburgh or Malone on sites which are at the moment entombed in salt-slush.

It is plain silliness to paint Norway maples with the same brush as all other plants on the invasive-species roster. For one thing I assume some kind of permit would be required for such a project. Clearly, this tree is not in the same class as buckthorn, exotic honeysuckles, Japanese knotweed and swallow-wort. The Morton Arboretum has evaluated the species, and concludes "While these trees have demonstrated invasive traits, there is insufficient supporting research to declare them so pervasive that they cannot be recommended for any planting sites." I think it deserves consideration in downtown, high-traffic, high-salt planting sites.

Nevertheless, I do urge the Bank of Canada to ban Norway maples from their currency.

*An ISA-Certified Arborist since 1996, **Paul Hetzler** wanted to be a bear when he grew up, but failed the audition. Having gotten over much of his self-pity concerning that unfortunate event, he now writes essays about nature. His book "Shady Characters: Plant Vampires, Caterpillar Soup, Leprechaun Trees and Other Hilarities of the Natural World," is available on amazon*