

'Here be wilde beestes': Magnolias in Nova Scotia

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Nova Scotia is not exactly well known for its Magnolias and indeed many of its inhabitants do not know that Magnolias grow here. In this they are encouraged by comments in various gardening books which state in general that certain species and varieties do moderately well up to say, New York, that they just survive, or not, at Boston, and one is then left to presume that north of Boston is a barren wasteland. In other words the Magnolia map of North America seems to end at Boston and we take our title from the habit medieval cartographers had of filling in blank or unknown spaces on their maps with words such as, "Here be wilde beestes." Hence the aim of this article is to get the facts straight and give an account of the species and varieties known to thrive in Nova Scotia.

As you may know, Nova Scotia is a peninsula about 500 km (300 miles) long, lying between 43° 30' and 47°N, with Halifax, the capital city, on the coast at about the halfway point. By a road just north of Halifax there used to be a sign which said, "You are now exactly halfway between the equator and the north pole." We are about 600 km (375 miles) east northeast of Boston and 1000 km (600 miles) from New York.

Climate. Our climate is strongly influenced by the water masses which locally modify the effects of the general tendency for weather systems to move from the west.

Almost surrounded by water, Nova Scotia is bounded by the Atlantic Ocean on the east and the Bay of Fundy and the Gulf of St. Lawrence on the west (see map, page 23).

The mildest areas of the Province are along the Atlantic Coast and the southern part of the Bay of Fundy. In this strip we are Zones 6A and 6B of the plant hardiness map. This mild zone parallels the coast and is caused by the Greenland Current—a cold mass of water flowing south. It is one of the cold water returns of the Gulf Stream. The Gulf Stream itself is several hundred kilometers offshore at this latitude, heading diagonally across the North Atlantic. It remains, however, one of the fantasies of Nova Scotian gardeners to remove Cape Cod (one of the more imaginative uses of nuclear power), and allow the Gulf Stream to bathe Nova Scotia in warm water.

The Greenland Current is both a curse and a blessing. Being colder in summer than the air temperature, it creates fogs on the coast, particularly during spring and early summer. This reduces the hours of sunshine but at the same time lessens the length and intensity of frost. The current also prevents the sea from freezing in winter, hence moderates the winter temperature along the coast where the sea is often much warmer than the air at that season. Even a few kilometers inland there are much more severe frosts. Hence the importance of the coastal belt in growing relatively tender plants.

The Gulf of St. Lawrence freezes in winter, allowing cold winds from the continental interior to sweep across unmollified. Hence Prince

Edward Island and New Brunswick have much colder winters. But in summer, on the other hand, the shallow sea of the Gulf warms up rapidly, giving much warmer and better growing conditions on Prince Edward Island, whence the motto of P.E.I., "Garden of the Gulf." One of the conspicuous differences between coastal Nova Scotia and, say, Boston, is that there is no crescendo of heat in the midsummer. Chewing gum hardly ever sticks to the sidewalks in Halifax nor do the houses have air conditioning. This probably affects the ripening of new shoots. Annual rainfall is 62 inches at Halifax.

Two people have experimented widely with Magnolias and much of our information is derived from their experiences. They are Capt. R. M. Steele and Dave W. Veinotte, both growing plants in the coastal zone south of Halifax, although Dick Steele started at Boulderwood in Halifax. Dick Steele has the greatest experience since he must have been trying things out for over 30 years.

Magnolia species hardy in Nova Scotia. We cannot grow the evergreen *Magnolia grandiflora* because of leaf damage in winter but apart from that we have a good range of the deciduous species, especially in Halifax and the coastal zone south of Halifax.

Doing well are *M. acuminata*, *M. acuminata* var. *cordata*, *M. fraseri*, *M. heptapeta*, *M. hypoleuca*, *M. kobus*, *M. macrophylla*, *M. quinquepeta*, *M. salicifolia*, *M. stellata*, *M. sieboldii*, and *M. tripetala*.

Attempts to grow *M. virginiana* were not successful initially because its var. *australis* was planted instead in the mistaken belief that it was a more hardy variety. Now being tested are the cv. 'Satellite,' seedlings of var. *virginiana* and a promising form from Milton, Massachusetts obtained via the seed exchange. We

are optimistic that *M. virginiana* ultimately will succeed in Nova Scotia.

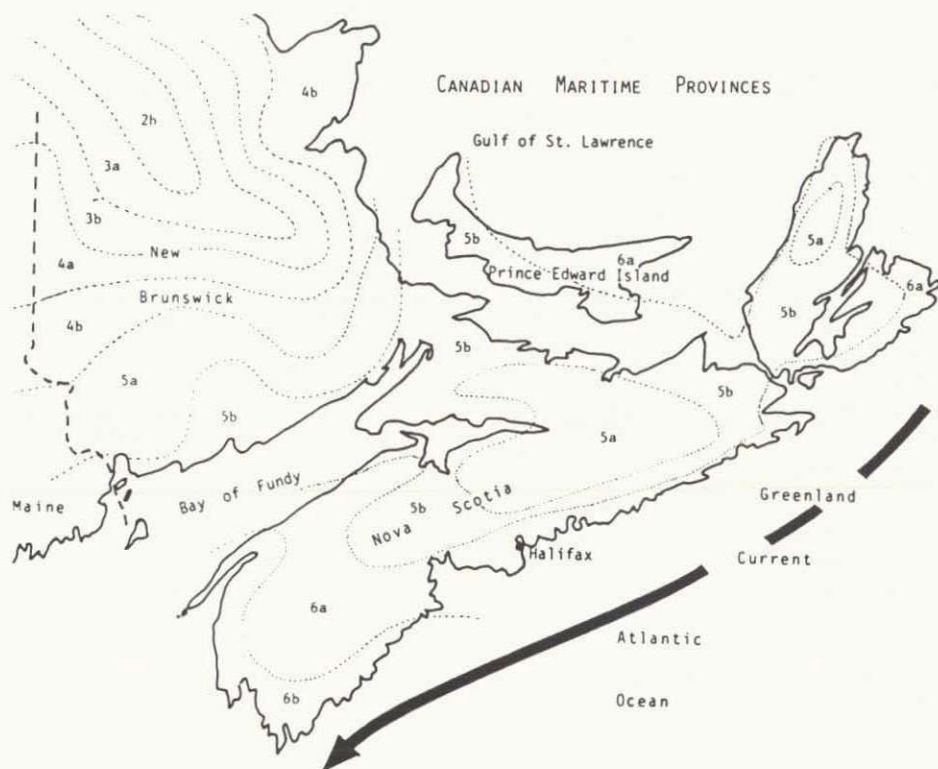
The only large *M. macrophylla* in the Province has a curious story attached to it. In 1960 Dick Steele planted a *M. fraseri* at Boulderwood. This grew beautifully and bloomed. In 1974 at a height of about 5m, it snapped off in a freak wet snowstorm in mid October when it still had its leaves on. In 1975 a sucker came up but later collapsed. In spring of 1976 another sucker grew but this time it was *M. macrophylla* which emerged. This is now a handsome young tree of about 8 m. and bloomed for the first time in 1982 or 1983. It has not set any seed.

A fairly old specimen of *M. quinquepeta* is growing in the garden of Mr. and Mrs. G. E. MacDonald in Halifax. They say it was growing there when they bought the house 16 years ago and until it was pointed out to them they had no idea that it was not the common *M. x soulangiana*. Since the house was built about 1948 on former woodland this puts a maximum age of about 38 years on the plant.

M. quinquepeta has never been a normal item in the nursery trade here and its origin can only be a matter of speculation. We can only guess that it was part of a mixed collection of shrubs imported by a nursery in the late 1940s or early 1950s either from the United States or from Belgium or Holland. We do not know what variety it is but the flowers are quite large and are pale inside, so they do not correspond to what we regard as var. *nigra*. In fact it took us quite a few years to come to the conclusion that it was not one of the derived forms of *M. x soulangiana*.

Our hesitancy in identifying the *M. quinquepeta* was the result of Treseder (1978) saying, "*M. quinquepeta* is hardy on the coastal plain of the south-eastern states of

Plant hardiness zones in the Canadian Maritimes



America as far north as New York. At Brooklyn Botanic Gardens it has been reported not to grow vigorously and to be susceptible to winter kill. Further south it occasionally bears fertile fruit cones and several superior seedlings have been given clonal names and propagated vegetatively." The Halifax plant is wretchedly sited between the house and a large norway maple so that it gets little direct sunshine. Even so, at 2 m. height and of irregular shape from shading, it takes everything that the Nova Scotian winter can throw at it. In 1985 it bore about 40 flowers which set about a dozen fruit cones when some were pollinated with pollen from the *M. x loebneri* cv. 'Leonard Messel.'

An *M. sieboldii* was brought to Nova Scotia by Dr. Beecher Weld in 1954 or 1955 from British Columbia.

It is now a rather untidy tree of about 6 m. height with many basal sprouts. There are many other plants of this species in the Province, resulting from distribution by Dick Steele. It makes strong shoot growth of up to 70 cm. per year and is bone hardy since it thrives even in the inland, Zone 5, region. Everett's (1982) comment, "hardy in sheltered places in southern New England," would seem to need modifying.

The oldest *M. stellata* in Nova Scotia is probably the one in Halifax Public Gardens planted near the Queen Victoria Jubilee Fountain and possibly even dating from shortly after that time. As a specimen it is only about 2.5 m. high and has suffered from shading in its career. For all the years we have known it, it has hardly increased in height since it flowers so profusely that

there is very little shoot extension. Seeds are produced most years and seedlings have grown vigorously, one reaching 1.5 m. in 10 years. Named cultivars such as 'Royal Star,' 'Centennial,' and 'Waterlily' grow well and bloom profusely although being so early the flowers may get frosted or broken by the wind. In 1986 the first flowers opened about 3 May, with a late spring snowstorm a few days later.

Other plants of note are *M. kobus* and *M. salicifolia* which are growing vigorously at Boulderwood with abundant flowers and fruits being produced. The leaves of *M. salicifolia*, of course, release a delightful scent of anise when crushed.

Hybrids in Nova Scotia. With interest in hybrids booming, several people are trying various adventuresome combinations. Most of these are seedlings or young plants and it would be unfair to go into details before we have given them a fair trial. Therefore, the ones below are fairly standard fare but are mature or fairly mature plants which have proved hardy for many years.

M. x kewensis 'Wada's Memory,' hardy and vigorous. *M. x loebneri* 'Leonard Messel,' 'Merrill' and 'Neil McEacharn' are all hardy and grow well. Only 'Merrill' has been distributed by the nursery trade so far and curiously it has sometimes been sold bearing the label, "*M. stellata*." (We shall have an article later about nursery mislabeling).

M. x proctoriana 'Slavin's Snowy' does well.

M. quinquepeta x stellata, the Devos-Kosar hybrids known as the Eight Little Girls have only recently become available and are now on sale at some retail nurseries, but again incorrect labels have been attached. 'Jane' has been sold as "Magnolia stellata Jane," and 'Ann' just baldly as "Magnolia soulangiana nigra." We anticipate that they will prove very hardy in Nova Scotia but a few more years are needed before

we can be definite.

M. x soulangiana. There are many plants around the Province of this old hybrid and it must have been sold all this century and part of the last. An old bush on Connaught Avenue in Halifax sprawls about 10 m. across and maybe 4 m. high, and is admired every year when it covers itself in flowers. It is of course the only Magnolia that the general public is familiar with. Of the named clones, Dick Steele has had 'Lennei,' 'Lennei Alba,' 'Alexandrina,' and 'Purpurea' growing for 14 years with no problems. However, he imported grafted plants of 'Brozzonii,' 'Rustica Rubra' and 'Speciosa,' as well as *M. stellata* 'Centennial' and the Gresham hybrids 'Rouged Alabaster' and 'Royal Crown,' and these all died apparently because of lack of hardiness of the understock. These need reintroducing on better stock. They are expected to be hardy.

To sum up, then, Nova Scotia has a surprisingly favourable climate for growing Magnolias. Because of its peninsula situation it is milder in the winter than more southern regions such as New Brunswick, Vermont, and all except extreme coastal Maine, New Hampshire, New York and Pennsylvania. It suffers from late springs, short growing seasons, frequent lack of heat in summer and an unventuresome retail nursery trade. Despite these drawbacks, a number of the more determined gardeners have imported a wide range of deciduous magnolias and shown that, with the exception of the tree Yulania section (*M. campbellii*, etc.), a minimum of 30 species and varieties can be grown here. In the next few years the list is expected to be enlarged.

REFERENCES

- Everett, T. H. The New York Botanical Garden Illustrated Encyclopedia of Horticulture, 10 vol. Garland Publishing, NY, 1982.
- Treseder, N. G. Magnolias, Faber and Faber, London, 1978.