

## **PART 8:**

# **CULTIVATED TREE ON THE AVALON PENINSULA**



From a forester's point of view there is much to be learned from the hundreds of cultivated tree species and varieties on the Avalon Peninsula. Especially the performance of trees planted on some of the most atrocious sites imaginable. This part is a selection of photographs of some of the principle species of cultivated trees and how they fit into the urban landscape.

## CULTIVATED TREES ON THE AVALON

The legacy of community planting dates back at least a couple of centuries - beginning no doubt with the introduction of the once indispensable basket willow. Were it not for the Great Fire of 1892 and others, we would have had a clearer idea when the earliest tree planting began.

To date, the oldest living planted trees on the Avalon, which have been dated by counting their tree rings, date back to 1840 are the European beech growing on the grounds of Government House, the Anglican Cathedral, on the Boulevard (formerly Ross' Farm) and on Kenna's Hill on the north side of Quidi Vidi lake. They were planted shortly after Government House was built.



St. John's harbour. The yellow line approximately marks the boundary of the Great Fire of 1892 which destroyed most of the city as was it was then.

### European beeches by Quidi Vidi Lake





## Trees of St. John's

St. John's is a city with a remarkable collection of tree species. Not only is the city well-endowed with cultivated trees, it also has extensive tracts of naturally regenerated boreal forest with virtually all of the native species of trees and shrubs found throughout Newfoundland.



View from Signal Hill showing cultivated trees as far as Confederation Building (middle-left) and natural balsam fir forest on hills beyond it.



English oak among the native spruce-fir-birch woodlands at Shamrock Farm, Pippy Park



European beech, Norway maple and Elm on King's Bridge Road



Bowring Park and Statue of the Caribou dedicated to The Royal Newfoundland Regiment



The view from Pippy Park looking over Memorial University of Newfoundland towards Quidi Vidi on the coast.

Since the 1960's in particular, community tree planting on the Avalon, as the main part of the modern renaissance in landscaping, has become a multimillion dollar industry with an economic value far in excess of that invested in afforestation.

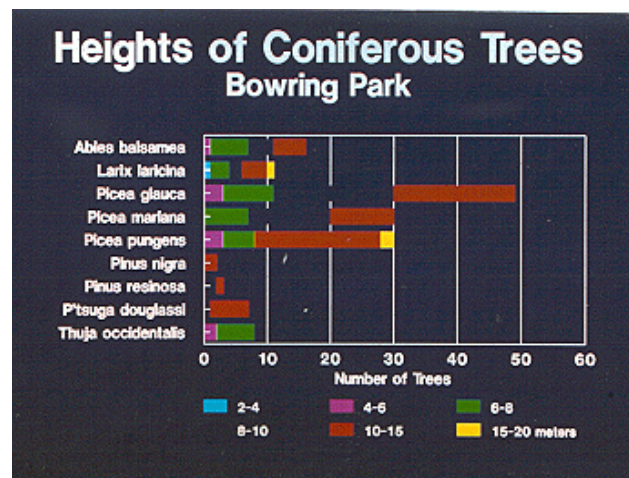
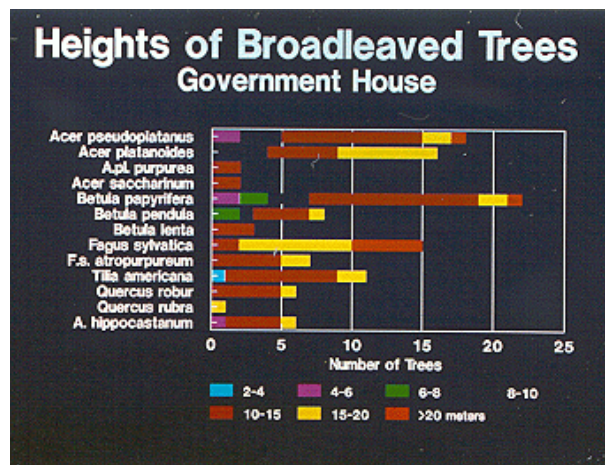


A section of St. John's with a 1960's street-tree planting program that was cost shared between the home-owners and Parks Department



Results of the cost-shared street-tree planting program after 20 years.

While the range of species that is cultivated in St. John's is rivalled only by Victoria and Vancouver, they don't reach great heights. The reason being the shallowness of soils and the persistent, often cold and damp wind blowing in from the Atlantic Ocean. Generally, the top height that can be expected throughout most of the city is 22 metres.



70-80 year-old English elms rank among the tallest trees. On the grounds of the old Belvedere Convent one is 20 m (66 ft) tall; as are two other elms bordering Duckworth Street below the Anglican Cathedral. An elm in the back garden of McCoubrey Manor on Ordenance Street is also 20 m and may even be as tall as 23 m (76 ft) - there are too many obstacles (fences, patios, buildings and other trees) to get a clear view of its top to measure its height accurately.



For a short time in the 1950's, poplars were quite popular because of their fast growth. Beside the bus stop on Water Street west near the bottom of Leslie Street, there is a bronze plaque bolted into a tree stump which informs us that, at 82 feet (25 m), this Carolina poplar was the tallest tree in St. John's when it was cut down for safety's sake in 1997. Poplars also put on good girth, as do oak, beech, elm and basswood



Lime (Bass)



Carolina Poplar

As we can appreciate from the photos below, Pine Bud Avenue gets its name from the Caledonian Scots pine trees which line it. Planted among them are graceful European weeping birch, elm, maple and the legendary rowan tree of ancient Celtic myth - giving the avenue a distinctively Scottish flavour.





## Government House

Government House is on the crest of a hill overlooking the harbour which was once known as ‘the barrens’. Compared to the neighbourhood in general, it is a cold windy site: so much so that Governor Cochrane had main doors built on all sides of the house, to avoid the chilly winds of the day.



The grove of trees in the main garden, mostly European species of beech, elm, sycamore, birch and oak, have the classic pastoral landscape, complete with a Governors’ paddock, is reminiscent of the style of 18th century landscape architect Capability Brown’s landscape designs for many of the great British and Irish country manors. The grounds were designed by a landscape architect Alfred Cocius, who also laid out Bowring Park and the Park Avenue section of Mount Pearl. On the north side of Government House, the landscape is less appealing, not simply for its lack of trees, but also for its exposure to the raw nor’easters and persistent westerly winds.



In terms of longevity, these are exceptionally young trees. Also, very few of them show signs of heart rot. Which is a fairly good indicator both of adaptability and wood quality. Although there are no volume tables for local exotics, from which we could estimate their yield in terms of bole and total biomass, respectively, they are considerably greater than the best of native trees on the island.



When the trees at Government House were measured by the author in mid-1970's, none were taller than 18 m (59 ft). This time around (September 1999), apart from a few trees which are between 20-22 m tall, most are still stuck at a top height of 18 m. The trees are much healthier - probably due to the gardeners adding a thick layer of new soil to improve the lawn which also directly benefits the trees.

Apart from the beech, most of the 'old' trees, predominantly sycamore, English elm, European ash, and European birch are less than 100 years old.

Of all the trees on Government House Grounds, the most remarkable tree of all is the sweet chestnut - a native of temperate climates in southern Europe, North Africa and Asia Minor. It is one of only four known to grow in Newfoundland - another is at Shamrock Farm and two are in a garden in Topsail. They produce chestnuts which don't quite ripen. Nevertheless, this is a clear indication of the relatively mild winters and warm summers of St. John's.

The substantial, relatively new plantings of ceremonial trees, by Royalty, diplomats and other distinguished visitors, will eventually provide much needed shelter from northerly winds and enhance the visual perspective.



Sweet chestnut (left) near the Military Road entrance to Government House.



The ceremonial section where most of the trees were planted by visiting royalty and distinguished citizens in recent years



## Shamrock Farm

The tallest trees in St. John's are white poplar and European ash at 26 metres tall and only about 60-70 years-old. They are located in Shamrock Farm, Pippy Park. In fact, poplar and ash on Shamrock Farm account for the ten tallest trees in Newfoundland. Other gems at the farm are one of two sweet chestnuts in Newfoundland and a fine group of 50-60 year-old English oaks - probably raised from acorns from the matriarch above the farm.



White poplar



Sweet Chestnut



European ash



English oak



Ripe acorns



T'ree-some of English oak



## Waterford Valley

Until about the 1950's, most of the valley was bereft of trees except for extensive planting around the prosperous residential area on the east end of Waterford Bridge road and Bowring Park which is a nice mixture of natural woods and planted ornamentals. Otherwise, the south side and west end was mostly productive farmland.

The most commonly planted species are Sycamore and Norway maple. Other favourite exotic species are European elm (up to 19 m tall), sugar maple, European ash, European birch.

Waterford Valley has some of the tallest trees on the Avalon. For example, there is a relatively young red pine 22 m tall and 84 cm dbh. Around 1984, this tree was recognized by the International Arboricultural Society as the tallest tree in St. John's.

Austrian pine was the most common among the conifers planted in the valley. Some of them had reached 22 metres in height and 35-50 cm dbh. Unfortunately, strong winds, combined with the weight of freezing rain and wet snow has snapped the taller trees back to 20 m.

The railway, occupied the south side of Waterford River. So the railway banks were purposely kept free of trees. In fact, when chemical arboricides like Roundup became available they were used until the early 1970's to keep the railway banks free from vegetation.



East end of Waterford Bridge Road showing the predominance of sycamore and Norway maples





A manor and waterworks at the east end of Waterford Bridge Road at the beginning of the 20<sup>th</sup> century.



Photograph from the same spot as above at the end of the 20<sup>th</sup> century. The manor house is still there behind the maples, and traces of the concrete dam of the waterworks can be see just above the railing 3<sup>rd</sup> in from the right. Virtually all of the 20 or so species and one hybrid birch naturally regenerated in the latter half of the century.



The Waterford Bridge Valley is unique insofar as it has a rich blend of planted and naturally regenerating native and exotic trees. Yet, about 50 years ago it was almost bereft of trees. The most interesting natural regenerations of exotics have occurred on the flood plain and along the railway bed that was abandoned in the 1970's and is now the beginning of the Trans-Canada Trailway system.



Natural regeneration along the Waterford River.



Waterford Valley: both sides of the river are dominated by naturally regenerated native birch and progenies of a natural hybrid between European birch and native birch.

From the trail a little way upstream from Syme's Bridge in the lower Waterford Valley one can see a big English elm towering above the younger birches. That one isn't quite 20 m (66 feet). But give it another year and it will be.



One of the parent European birch trees which bred naturally with native white birch to produce an elegant hybrid which dominates the flood plain



A 19 m tall elm (centre) protrudes above naturally regenerated native and hybrid birch.



Naturally regenerated European elm, European ash, sugar maple, hybrid birch, Norway maple mixed with native white spruce, birch, and pin cherry have colonized the old railway banks since the 1970's



TREES, GLORIOUS TREES!



Finnish Whitebeam



White oak



White pine behind mountain paper birch



Horse chestnuts on Cable Road, Bay Roberts



Copper beech, Cable Houses, Heart's Content



White willow



White birch (from mainland Canada)





Colorado Blue spruce and Austrian pine



European silver birch



Yellow birch



Sugar maple among the lindens





Caledonian pine



Copper Norway maple



Horse chestnut



Newfoundland blue fir (*Abies phanerolepis* var *caerulea*)