

# THE NEWFOUNDLAND BLUE BRACTED FIR

Text & Photos: Alexander Robertson



This distinctive tree, is normally classified as a hybrid i.e., *Abies x phanerolepis x caerulea* with a bluish white hue. It grows individually or in small groups among the common balsam fir (*Abies balsamea*) and is most common around the coast of Newfoundland – more so on the west side of the Northern peninsula.

From a gardener's point of view, the form and foliage rival the best cultivars of Blue spruce. Technically, it is not the foliage (needles) that give blue fir and blue spruce their colour. It is their genetic constitution which enables the leaves to produce a microscopic layer layer of semi-transparent waxy fibres called **microfibrils**. Such a waxy layer of microfibrils also occurs in other conifers- notably our native white and black spruce and white pine.

Since the waxy coating on conifers is most pronounced in natural "cloud-forest" ecosystems. Which suggests that the main purpose of the microfibrils is to suspend water droplets to create an air gap which enables stomata to "breathe". You can rub off the waxy fibrils on the needles to reveal the true colour of the foliage. On windy sites, especially during the winter, the natural removal of

waxes by wind and ice, tends to destroy the microfibrils. The result is that Blue Spruce, for example, will lose its bluish hue - especially on the old parts of the branches. As a demonstration, in the photo the microfibrils have been gently brushed off with a nail brush to reveal the true color of the needles.



The collage of photos below illustrates the remarkable variation of foliage and cones in such a small area below the Rocky Harbour Lighthouse. The photos were taken about 1997

